Professor Lynn R. Cominsky Curriculum Vitae

Address:	Department of Physics and Astronomy Sonoma State University Rohnert Park, CA 94928 (707) 664-2655 FAX: (800) 848-6369 e-mail: lynnc@universe.sonoma.edu http://universe.sonoma.edu/~lynnc http://edeon.sonoma.edu
Personal:	Born November 19, 1953
Education:	Massachusetts Institute of Technology Ph. D. in Physics awarded September 1981 Thesis: <i>X-ray Burst Sources</i> , advisors W. H. G. Lewin and P. C. Joss
	Brandeis University B.A. in Physics awarded January 1975 (magna cum laude, with honors in chemistry)
Employment:	Department of Physics and Astronomy Sonoma State University Chair, August 2004 – August 2019 Professor, September 1991 – present Associate Professor, September 1986 – August 1991 Department of Chemistry, Chair August 2005- January 2007, and August 2018-January 2019.
	Space Sciences Laboratory University of California, Berkeley NASA's Extreme Ultraviolet Explorer Satellite Project Systems Development Manager, October 1985 – September 1986 Science Operations and Data Analysis Administrator September 1984 – October 1985
	Space Sciences Laboratory University of California, Berkeley Assistant Research Physicist I, September 1982 – August 1984 Post-graduate Research Physicist, September 1981 – August 1982
	Data Aide Smithsonian Astrophysical Observatory January 1975 – August 1977

Professional Societies

- American Astronomical Society 1975 present
- American Physical Society 1977 present
- Association of Women in Science 1978 present
- Sigma Xi 1981 present
- American Association of Physics Teachers 1986 present
- Graduate Women in Science 1991 2001
- American Association for the Advancement of Science 1999 present
- California Science Teacher's Association 2000 present
- National Science Teacher's Association 2002 present
- National Council for Teachers of Mathematics 2002 present
- Tripoli Rocketry Association 2008 present. Level 1 achieved in 2010. Level 2 achieved in September, 2011.
- American Geophysical Union 2016 present

Honors and Awards (Individual)

- Fellow, California State University STEM-Net 2020 and 2021
- Legacy Fellow, American Astronomical Society 2019
- Fellow, California Academy of Sciences October 2017
- Frank J. Malina Astronautics Medal, International Astronautical Federation, April 2017
- CSU Wang Family Excellence Award, January 2016
- American Astronomical Society Education Prize January 2016
- American Astronautical Society Sally Ride Education Award, December 2015
- SSU Presidential Award for Excellence in Scholarship, March 2015
- Aerospace Awareness Award from the Women in Aerospace organization, October 2014
- Women Honoring Women award from the Sonoma County Commission on the Status of Women, 2013
- AAAS Fellow (Astronomy), 2013
- APS/CSWP Woman Physicist of the Month September 2012
- Fellow, American Physical Society (Education) 2009
- Fellow, California Council on Science and Technology, 2008
- Wang Family Excellence Award Nomination 1999, 2000, 2001, 2002, 2006
- Sonoma State University Faculty Merit Increase Award 1998, 1999, 2000
- Sonoma State University Difference-in-Pay Sabbatical Leave 1997 1998, 2001-2002
- Sonoma State University Performance Salary Step Increase Award (3 steps) 1995
- Sonoma State University Sabbatical Leave 1993 1994
- Council for Advancement and Support of Education California Professor of the Year Award 1993
- Sonoma State University Outstanding Professor Award 1992
- Excellence in Education Award (from the Santa Rosa Chamber of Commerce) 1991
- CSU Meritorious Performance and Professional Promise Awards 1987, 1988, 1989, 1990
- Zonta International Amelia Earhart Graduate Fellowships 1977, 1978, 1979
- Elihu Silver Undergraduate Research Award in Chemistry (Brandeis University) 1974

- National Science Foundation Undergraduate Research Award 1973
- National Merit Scholar 1971

Honors and Awards (Team)

- Einstein Medal to the LIGO and Virgo Scientific Collaborations (June 2017)
- Princess of Asturias Award for Technical and Scientific Research to Rainer Weiss, Kip S. Thorne and Barry C. Barish and LIGO Scientific Collaboration (LSC) 2017
- HEAD/AAS Rossi Prize Gabrielle Gonzalez and the LIGO Scientific Collaboration 2017
- Gruber Prize in Cosmology to Rai Weiss, Kip Thorne and Ronald Drever and the LIGO Scientific Collaboration 2016
- Breakthrough Prize in Physics to Rai Weiss, Kip Thorne and Ronald Drever and the LIGO Scientific Collaboration 2016
- HEAD/AAS Rossi Prize Bill Atwood, Peter Michelson, and the Fermi Gamma Ray Space Telescope LAT team 2011
- NASA Group Achievement Award for Fermi Science Team 2010
- NASA Goddard Space Flight Center Exceptional Achievement Award for Fermi Large Area Telescope Science Team 2008
- HEAD/AAS Rossi Prize to Neil Gehrels and the Swift Team 2007
- NASA Goddard Space Flight Center Exceptional Achievement Award for Swift Science Team 2005
- NASA Goddard Space Flight Center Outstanding Teamwork Award for Swift Phase A 2000

EDUCATIONAL ACTIVITIES

EdEon STEM Learning

EdEon was originally named the SSU Education and Public Outreach (E/PO) group when it was founded by Prof. Cominsky in 1999. Until 2020, Cominsky was the Project Director, Principal Investigator or Co-investigator on all grants to the group. In 2017, Dr. Laura Peticolas joined the group as Associate Director. With more than 15 years of experience at UC Berkeley leading E/PO programs for NASA's Heliophysics Division and its missions, Peticolas has greatly increased the scope of activities that EdEon can support to include space and earth science topics, and is bringing her own projects into EdEon. EdEon's mission is to develop exciting formal and informal educational materials that inspire students in grades 5-14 to pursue STEM careers, to train teachers nation-wide in the classroom use of these materials, and to enhance science literacy for the general public, with a special focus on increasing the numbers of underrepresented students.

The SSU E/PO group currently consists of Dr. Laura Peticolas (Associate Director), Aurore Simonnet (Scientific Illustrator), Jeffery Reedy (Education Technologist), Troy Wilson (Systems Administrator), Aline Fromme (Academic Support Coordinator), Hannah Hellman (Writer) and Robert Martinez (Project Support Coordinator) plus a minimum of six SSU undergraduate students and many special consultants. Since 1999, the group has received over \$27 million in

NASA grants, including the newest award, NASA's Neurodiversity Network (2021 - 2025). In the past, NASA grants have primarily supported the education and public outreach programs for several different space science missions, including XMM-Newton (launched in 1999), Swift (launched in 2004), the Fermi Gamma-ray Space Telescope (formerly known as GLAST and launched in 2008) and the Nuclear Spectroscopic Telescope Array (NuSTAR, launched in 2012). We have also received funding from NASA for the development of an online course in Cosmology for general education college students, the development of formal curriculum for secondary students to build small satellite payloads for launch on high-powered rockets or tethered weather balloons, and for community college students to build payloads for launches on rockets or unmanned aerial vehicles. From 2015-2020, Cominsky was a Co-investigator in NASA's Universe of Learning Astrophysics Learning and Literacy program. She continues as a scientific co-investigator on NASA's Swift, Fermi, and NuSTAR missions and also acts as press officer for both Swift and Fermi. Programs funded by the US Department of Education total \$14 million and include "Scaling an innovative STEM And Computing Education Support (STEMACES) Model for Improved Science Learning," "Developing a Student-Driven STEM and Computer Science Curriculum for Rural Students" and "Learning by Making: STEM Success for Mendocino County". She was also the Principal Investigator for "Teaching Einstein's Universe at Community Colleges" from the National Science Foundation. A brief summary of some of EdEon's educational activities is given below.

Formal Education Units developed by the SSU E/PO group and subcontractors. Each guide contains original, well-tested and externally evaluated classroom ready educational activities, as well as background material and information on alignment with National Science Education Standards and/or National Mathematics Standards. These guides are distributed through hundreds of workshops at national, regional and local teachers' conferences each year. If not otherwise noted, the guides below can be downloaded from NASA Wavelength: http://nasawavelength.org

1) Invisible Universe: from Radio Waves to Gamma Rays (grades 6-8) – subcontract to Lawrence Hall of Science GEMS group (© 2002) In this 125 page GEMS guide, intriguing activities deepen student understanding of the electromagnetic spectrum, enabling students to detect and consider wavelengths other than visible light. One of the greatest mysteries of all is what causes gamma ray bursts. These bursts are the most powerful explosions in the Universe and occur about once a day! Their origin is unknown, although there are several theories. Students learn about NASA's Swift mission, a specially-equipped satellite to further explore the causes of gamma ray bursts. This is in use by over 6000 teachers nation-wide. Order online at: http://www.lhsgems.org/gemsInvUniv.html

2) Far Out Math – subcontract to Ron Marson, TOPS Learning System (© 2003) Far Out Math! is an inquiry-based math/science curriculum that explores the conceptual tools which have enabled scientists and engineers to launch satellites like GLAST into space, and to make sense of the data received. In this curriculum, students measure, scale, graph and problem solve, using examples derived from GLAST. They compare quantities as orders of magnitude, become familiar with scientific notation, and develop a concrete understanding of exponents and logarithms; all skills needed to understand the very large and very small quantities characteristic of astronomical observations. Far Out Math! instructs students in logarithms, preparing them for further physical and space science studies, and is in use by over 4000 teachers nationwide. Download from: http://fermi.sonoma.edu/teachers/topsmod1.pdf

3) Scale the Universe (grades 5-12) – subcontract to Ron Marson, TOPS Learning System (© 2005) TOPS learning systems created this 64 page educator unit with support from the GLAST mission.

This guide covers scientific notation, orders of magnitude, and plotting using both linear and log scales. Students determine the relative scales of objects in the Universe from the very small to the very large. This guide is in use by over 2500 teachers nationwide. Download from: http://fermi.sonoma.edu/teachers/scale_universe.pdf

4) Pi in the Sky (grades 5-12) – subcontract to Ron Marson, TOPS Learning System (© 2005) TOPS learning systems created this 80 page educator unit with support from the GLAST mission. This guide covers angular measure, including the meaning of Pi, radians to degrees conversion and the dependence of apparent angular size on distance. The angular sizes of astronomical objects are presented as extensions to learning about the angular sizes of every-day objects. This guide is in use by over 2500 teachers nationwide. Download from: http://fermi.sonoma.edu/teachers/pi in the sky.pdf

5) Active Galaxies (grades 9-12) – SSU E/PO group (2002) This guide accompanies an educational wallsheet that uses Active Galaxies as an engagement to each selected topics in physical science and mathematics. It was developed as part of the GLAST E/PO program. The AGN Educator Guide features three curriculum enhancement activities, background information, assessment information, student worksheets, extension and transfer activities, and detailed information about the physical science and mathematics content standards. This guide is in use by over 5000 teachers nationwide. See all the materials and download from: http://fermi.sonoma.edu/teachers/agn.php

6) Gamma-ray Bursts (grades 9-12) – SSU E/PO group (2004) This guide accompanies an educational wallsheet that uses Gamma-ray Bursts as an engagement to teach selected topics in physical science and mathematics. It was developed as part of the Swift E/PO program. The GRB Educator Guide features four curriculum enhancement activities, background information, assessment information, student worksheets, extension and transfer activities, and detailed information about the physical science and mathematics content standards. This guide is in use by over 5000 teachers nationwide. See all the materials and download from: http://swift.sonoma.edu/education/index.html

7) Dying Stars and the Birth of the Elements (grades 9-14) – subcontract to Project CLEA, Gettysburg College (2005). This interactive computer-based laboratory simulates the observation of a supernova remnant using an imaging X-ray telescope. Students explore the effects of changing the abundances of elements on the emergent x-ray spectrum, to try to match the observed data. Teacher and student manuals are provided, including background information, assessment information and detailed standards information. Download from: http://xmm.sonoma.edu/edu/clea/index.html

8) Active Galaxies Pop-up Book (grades 3-8) – SSU E/PO group (2006) The Active Galaxies popup book is a very large rectangular pop-up book with foldouts that was developed for use in classrooms for grades 3 and up and for special needs audiences. Active galaxies, a major scientific target for the Fermi mission, contain super-massive black holes at their cores, and sometimes emit jets of particles and light. When opened, a model of an active galaxy with jets pops up out of the center. One foldout contains explanatory information for the parts of the galaxy depicted in the central pop-up as well as a glossary, while the other contains a well-tested classroom activity "Tasty Active Galaxy." The back of the book features a whimsical cartoon story "How the Galaxy Got Its Jets." See illustrations and download text from: http://fermi.sonoma.edu/teachers/popup.php

9) Eyes Through Time (grades 5-8) – subcontract to Pennsylvania State University © 2007. These six activities use the Swift mission as a basis to teach the evolution of scientific thought and scientific processes. The activity set is available through download from the Internet (<u>http://teachersdomain.org</u>), along with accompanying narrated video segments that use Swift and Swift scientists to illustrate the lessons.

10) Newton's Laws of Motion and Gravitation Educational Wallsheet Set (grades 6-8) – SSU E/PO group (2007) This is a set of 4 posters depicting and explaining Newton's laws of motion

and gravitation. A set of classroom activities accompanies each poster. The activities were created to complement each other as an overall unit, whether in science or math. These activities are in use by over 5000 teachers nationwide. See all four posters and download from: http://swift.sonoma.edu/education/index.html

11) Supernovae (grades 9-12) – SSU E/PO group (2008). This guide accompanies an educational wallsheet that uses Supernovae as an engagement to teach selected topics in physical science and mathematics. It was developed as part of the XMM-Newton and Fermi E/PO programs. The Supernova Educator Guide features four curriculum enhancement activities, background information, assessment information, extension and transfer activities, and detailed information about the physical science and mathematics content standards. Download from: <u>http://xmm.sonoma.edu/edu/supernova/index.html</u>

12) Big Ideas in Cosmology (GE college) – Coble, McLin, Bailey, Metevier, Peruta and Cominsky (2014). This two-semester college curriculum is published by Great River Learning, for adoption nation-wide. Read more about it:

http://contentbuilder.merlot.org/toolkit/html/snapshot.php?id=16711931691237 And here: http://www.greatriverlearning.com/Cosmology

13) NuSTAR Educator's Guide: X-rays on Earth and from Space – SSU E/PO group (2014). This guide includes two curriculum enhancement activities, two scientific literacy activities, background information, assessment information, extension and transfer activities, and detailed information about the physical science and mathematics content standards.

http://www.nustar.caltech.edu/system/media_files/binaries/34/original/NustarGuide14b508.pdf? 1442355944

14) Direct Observation of Gravitational Waves – **SSU E/PO group (2016).** This guide is intended for students in grades 6 and higher and includes background information as well as two classroom activities and standards alignment. The guide explains LIGO's 2015 discovery of gravitational waves from merging black holes.

15) Learning by Making Integrated STEM Curriculum (2018). Download the latest lesson plans and more for this innovative and effective 9th-grade curriculum, funded by the US Department of Education. <u>http://lbym.sonoma.edu</u>

Informal Educational Materials developed by the SSU E/PO group.

These informal materials have been externally reviewed and tested for use as supplementary classroom materials or by the general public. Most of the materials below can be downloaded from: https://science.nasa.gov/learners/wavelength We distribute these products through our exhibit booths at national, regional and local educator and science conferences to thousands of participants each year.

1) Swift Brochure: Catching Gamma Ray Bursts on the Fly (2002) The Swift Brochure informs the public about the Swift mission. It describes in detail the science that Swift will do and how it will do it. The description includes the three on-board instruments and their parameters, background information on gamma ray bursts and detection methods. It also describes current thinking about the origin of the still-mysterious gamma-ray bursts - the biggest explosions in seen in the Universe today.

2) Seeing and Exploring the Universe Resource Guide (2002) This Resource Guide provides an overview of 16 current and near-future Structure and Evolution of the Universe theme missions. A description of the science and E/PO program for each mission is provided, along with a list of other relevant resources and mission and E/PO websites. The guides also provide an educator response form.

3) Active Galaxies Wallsheet (2002) The Active Galaxies Wallsheet was developed to illustrate the properties of distant galaxies with supermassive black holes in their cores. Active Galaxies are a major scientific target for the GLAST mission. The back of the wallsheet has one of the three activities in the accompanying Educator Guide.

4) GLAST Tri-Fold Brochure (2003) The GLAST Tri-Fold Brochure provides an overview of the GLAST mission. The brochure highlights the science goals of the mission: the investigation of gamma-ray sources from Active Galactic Nuclei to Pulsars.

5) Gamma-ray Burst Wallsheet (2004) The Gamma-ray Burst Wallsheet was developed to illustrate the properties of light emanating from a gamma-ray burst as seen by three distant satellites, including Swift. The back of the wallsheet has one (Angling for Gamma-ray Bursts) of the three activities in the accompanying Educator Guide.

6) Swift Model Booklet (2004) This booklet contains information on the Swift Gamma-ray Burst Explorer mission, its scientific objectives and its detectors and other hardware. It includes pages of printed parts that can be assembled into a paper model.

7) Swift Launch Fact Sheet (2004) This color brochure describes the science of NASA's Swift mission, as well as providing tables that summarize the instrumental parameters and the follow-up team participants. It was produced in September 2004 for distribution at the Swift launch.

8) GLAST Brochure: Exploring the High Energy Universe (2004, updated for launch in 2008) The GLAST Brochure informs the public about the Gamma-ray Large Area Space Telescope mission. It describes in detail the science that GLAST will do and how it will do it. The description includes the instruments, background information on gamma ray astronomy and detection methods. It also describes current thinking about active galaxies, gamma-ray bursts, solar flares, gamma-rays from dark matter and other highly energetic sources seen in the Universe.

9) XMM-Newton Mission Ruler (2004) This English/metric ruler showcases some of the X-ray images obtained using XMM-Newton, and provides descriptive captions on the reverse side. It inspired a middle-school teacher to develop classroom activities that are featured on the mission website.

10) Swift Fact Sheet - July 2004 (2004) This 2-page color fact sheet briefly describes the Swift mission, its instruments, and ground system. Also included are tables listing the instrument parameters and a listing of the major institutions involved.

11) Swift Launch Lithograph (2004) The Swift launch lithograph is a one-page litho that describes the science of NASA's Swift mission, as well as providing an activity for students to do on the back. It was produced in September 2004 for distribution at the Swift launch.

12) Swift Launch Sticker (2005) The Swift launch sticker features a colorful image of the satellite on the front along with text describing the mission on the back.

13) GLAST mission sticker (2005) The GLAST sticker features a colorful image of the satellite on the front along with text describing the mission on the back.

14) GLAST Tasty Active Galaxy Litho (2005) This one-page handout provides a short activity for students to do using food products to model an active galaxy. The goal is to eat the black hole before it eats you! It is adapted from the Active Galaxies Education Unit, and it also appears in the pop-up book.

15) Swift Glider (2005) A model airplane designed to resemble the Swift bird, which conveys information about NASA's Swift gamma-ray burst Explorer mission.

16) GLAST Mission Poster (2005) The GLAST Mission poster shows an artist's conception of the Gamma-ray Large Area Space Telescope in space, exploring the high-energy Universe.

17) Fermi Race Card Game (2005) The Fermi Race Card game challenges two teams of players to strategically maneuver to be the first to assemble the parts of the Gamma-ray Large Area Space Telescope satellite and then use it to observe five astronomical objects. As players build their telescopes they must overcome hurtles and obstacles thrown at them by their opponents while doing the same in order to slow their opponents down. To win, players must successfully have their operational GLAST satellite observe five mysterious, deep space, phenomena.

18) Magnetic Globe Demonstration Litho (2005) This one page lithograph explains how to use the foam earth globes with rare-earth magnets to model the magnetic field of both the Earth and a neutron star pulsar in three dimensions. It is adapted from the Supernovae Education Unit.

19) Black Holes Fact Sheet (2006) This illustrated fact sheet answers eight of the most commonly asked questions about black holes, and was created to distribute with the Black Hole planetarium show. It also highlights the potential observations by a future Black Hole Finder Probe – the Energetic X-ray Imaging Survey Telescope (EXIST). It is also available in Spanish.

20) Fermi Paper Model (2007) The GLAST paper model provides a short description of the scientific instruments on board the Gamma-ray Large Area Space Telescope, as well as links to other resources about the GLAST instruments. There is also a short description of how GLAST detects gamma-rays with the Large Area Telescope as well as the GLAST Burst Monitor detectors. The product includes three pages of parts that can be cut out and easily assembled using common household items.

21) Fermi Gamma-ray Space Telescope Launch Lithograph (2008) The Fermi Gamma-ray Space Telescope (previously called GLAST) launch lithograph is a one-page litho that describes the science of NASA's Fermi Gamma-ray Space Telescope mission, as well as providing an activity for students to do on the back. It was produced in April 2008 for distribution at the Fermi launch.

22) Fermi Gamma-ray Space Telescope Launch Fact Sheet (2008) The Fermi Gamma-ray Space Telescope (previously called GLAST) launch fact sheet is a four-page color brochure that describes the science of NASA's Fermi Gamma-ray Space Telescope mission, as well as providing tables that summarize the instrumental parameters and the mission participants. It was produced in April 2008 for distribution at the Fermi Gamma-ray Space Telescope launch.

23) Fermi Skymap with four years of discovery (2012) Ten major discoveries by the Fermi Gamma-ray Space Telescope are called out from the iconic image of the high-energy gamma-ray sky. This poster was created and distributed at the Fermi Symposium in 2012.

24) NuSTAR Fact Sheet (2012). This factsheet is a two-page color brochure that describes the science of NASA's NuSTAR mission, as well as providing tables that summarize the instrumental parameters and the mission participants. It was produced in 2012 for distribution with the NuSTAR launch.

NASA-supported Educational Web Sites Created and Maintained by EdEon

1) EdEon website (2020) has now replaced the SSU E/PO group Web Site (2000).

<u>http://edeon.sonoma.edu</u> This web site includes links to all current and some legacy EdEon projects and contact information.

2) Fermi Education and Public Outreach Website (2001, updated in 2020)

http://fermi.sonoma.edu

This Education and Public Outreach web site provides information on the Fermi Gamma-Ray Space Telescope mission. Fermi is a joint effort of NASA, the Department of Energy, and several different international partners. The main objective of the Fermi mission is to study the Universe at high-energy gamma-ray energies. The Fermi E/PO site explains the scientific objectives and the instruments for the mission, has downloadable classroom materials and other interesting information about the mission.

3) Swift Education and Public Outreach Website (2001, updated in 2020)

http://swift.sonoma.edu

This Education and Public Outreach website provides information on the NASA gamma-ray burst explorer mission, Swift. The purpose of Swift is to study gamma-ray bursts, the most energetic explosions seen in the Universe today. The web site contains downloadable classroom materials, as well as a description of the Swift E/PO program and the Swift satellite and science objectives.

4) Astronomy from Home <u>http://afh.sonoma.edu</u> (has now replaced the Global Telescope Network Website (2003) http://gtn.sonoma.edu)

The Astronomy from Home (AfH) website contains information on how to use small telescopes to obtain ground-based observations of objects of interest to NASA missions, as well as background information on variable objects and observing suggestions.

5) XMM-Newton Education and Public Outreach Web Site (2003) http://xmm.sonoma.edu

This web site is designed to inform the education community and the general public about the XMM-Newton mission and its scientific discoveries. XMM is an ESA (European Space Agency) mission with NASA instrumentation and support. The XMM-Newton satellite is named after Isaac Newton and for its Xray Multi-Mirror design. The site is aimed at the non-scientist and educator and contains information about the mission, x-ray astronomy, and discoveries resulting from XMM-Newton data. It also features standards-based classroom educational materials useful for teaching astronomical concepts. As of 2016, this site is no longer supported.

6) Epo's Chronicles (2008, updated in 2020) <u>https://epos.lbym.org/</u>

Join Epo, a sentient spaceship and its humanoid companion, Alkina, in this weekly webcomic as they explore the galaxy and try to discover their origins. Each weekly "eposode" is accompanied by links to resources, multi-media and scientific background information.

7) Small Satellites for Secondary Students (2013) <u>http://s4.sonoma.edu</u> This website contains information as to how to build the S4 Arduino-based payload that includes environmental sensors, as well as information about S4 rocketry competitions held in 2015 at Black Rock. Details of hardware, software and building instructions are included with the educator's guide.

8) Rising Data (2018) <u>https://risingdata.lbym.org/</u> Rising Data is a NASA MUREP program that developed a model rocketry, drone and payload building program for under-represented college students. Details of the required hardware, software downloads and how to videos are included with the educator's guide.

Other projects developed and supported by the SSU E/PO group during 1999-2015

1) GLAST Robotic Optical Telescope (GORT) at the Pepperwood Preserve. The SSU E/PO group has constructed a fully robotic 14-inch telescope, located at a dark site about 30 minutes north of campus. Entirely funded by NASA, this telescope is used within the Global Telescope Network by high-school and SSU college students to acquire ground-based visible-light data that will be used in conjunction with space-based x-ray and gamma-ray data acquired by the XMM-Newton, Swift and Fermi missions. Since 2020, this telescope has been used for observations with the Astronomy from Home program.

2) Global Telescope Network (GTN). The SSU E/PO group coordinates over a dozen different partners, including amateurs, high school observatories, and small college observatories who obtain data on scientific targets of interest to the XMM-Newton, Swift and Fermi missions. We provide archiving for all GTN data, in partnership with the American Association of Variable Star Observers (AAVSO.) The goal of the GTN is to partner space scientists and students to obtain multi-wavelength data suitable for use in scientific publications. (See Astronomy from Home.)

3) Educator Ambassador (EA) Program. The SSU E/PO group originated and coordinated this program, which now consists of 18 master educators in 17 different states and Canada. The EAs work with the science and E/PO teams from five different Astrophysics missions to help develop, test, and disseminate materials to achieve our educational goals of developing NSES-aligned educational materials, reaching underrepresented students, and encouraging STEM learning. Since the initial selection of EAs in a nation-wide competition in 2001 and together with SSU E/PO staff, we have directly trained over 68,000 teachers and students and members of the public.

4) What's in the News? was a news program, developed through a subcontract to Penn State University, that was seen by five million middle-school children across the country. It was accompanied by online classroom activities and other supplementary material. Swift E/PO supported the creation of 12 features for WITN. In 2004, the funding for WITN was eliminated by WPSX, the Penn State public television station. All the Swift segments are archived at http://swift.sonoma.edu/program/witn.html.

5) Black Holes: The Other Side of Infinity. This full-dome digital planetarium show was directed by Tom Lucas, with seed funding from GLAST E/PO, primary funding from the National Science Foundation, in association with the PBS science series NOVA. Prof. Cominsky was one of two science directors for the show which premiered 1/31/06 at the Denver Museum of Nature and Science. Narrated by actor Liam Neeson, this show provides a groundbreaking scientifically accurate perspective on black holes.

6) Monster of the Milky Way. The companion PBS NOVA show to the Black Holes planetarium show described above, this television program uses many of the same supercomputer simulations. It premiered 10/31/06. Prof. Cominsky also served as science director for this show, which was also directed by Tom Lucas.

7) Black Hole Rescue Game. This interactive game improves the science literacy of students in grades 4-12. After reading an article about black holes, the students "rescue" letters to form a vocabulary word that appears in a list, before the letters fall into a black hole. It was developed by NASA's JPL Space Place team, under subcontract from the SSU E/PO group, as part of the XMM-Newton E/PO program. It was available in both English (<u>http://spaceplace.nasa.gov/en/kids/blackhole/</u>) and Spanish (<u>http://spaceplace.nasa.gov/sp/kids/blackhole/index.shtml#</u>) but is no longer active.

8) NASA Exhibit Booths. We have created three exhibit booths: two are used at scientific conferences to represent Swift and Fermi. The third features Swift, Fermi and XMM-Newton and NuSTAR, and is used at educator conferences. These booths are staffed at several conferences each year, and are used to distribute various informal educational products, as well as to conduct demonstrations.

9) Cosmology Workshop for Teachers. This three-day course was developed in partnership with Prof. Caty Pilachowski and was piloted at Indiana University in June 2007. It was partly funded by SNAP E/PO. It is available for download from: <u>http://www.astro.indiana.edu/darkuniverse.shtml</u> It was reprised during the Educator Ambassador training in the Summer of 2008, with assistance from Chicago State University Prof. Kim Coble. Updated materials can be downloaded from: <u>http://epo.sonoma.edu/ea/training2008/index.php</u>

10) Roseland University Prep Summer Experience. This three-day college experience was organized and sponsored by the Fermi E/PO program to introduce the rising seniors of this predominantly low-income, first-generation college Hispanic public charter high school to college life. Included GLAST activities and telescope viewing. July 29-31, 2007. This was repeated during June 15-17, 2008.

11) Small Satellites for Secondary Students Educator Training. This week-long training involved 18 teachers and Girl Scout leaders. They learned how to build the S4 payloads, and launched them on high-powered rockets in July 2013.

Teacher Training Programs

Prof. Cominsky was the Faculty Advisor and Principal Investigator for the California Subject Matter Project called the North Bay Science Project. NBSP was active during 1999-2005, and taught over 100 teachers each year. It was merged with the Redwood Empire Science Project in 2005 due to lack of state funding. Prof. Cominsky also developed the following Californiastandards aligned courses to teach grade 3-9 teachers through the following workshops:

The Atom's Family regional workshop (November 3, 2001)

A one-day workshop focusing on the constituents of the atom, primarily aligned with science standards for grades 3 through 5: <u>http://nbsp.sonoma.edu/resources/teachers_materials/county_regionals/11-03-01/atoms.htm</u>

Electricity and Magnetism Summer Institute (July 2002)

Conducted Physical Science weeklong training institute focusing on the properties of electricity and magnetism, primarily aligned with science standards for grades 4 and 8, with special focus on English Language Learners. Workshop materials are online at: <u>http://nbsp.sonoma.edu/resources/teachers_materials/index2002.html</u>

Physical Science Leadership Institute (July 2003)

Conducted two week long training institute focusing on the California State Science standards, primarily for grades 3, 5 and 8 about the properties of matter, the periodic table of the elements, and basic physical chemistry. Special focus on English Language Learners. Workshop materials are online at: http://nbsp.sonoma.edu/resources/teachers_materials/index2003.html#physical

Other notable Teacher Training programs:

Learning by Making Teacher Training. This week-long training for 12 teachers is also accompanied by five in-service days each year for teachers from rural high-needs high schools in California counties. Repeated every year from 2014 through 2023.

Rising Data Teacher Training. This week-long training for 5 community college instructors provides instruction in how to build the latest version of the payload, plus rockets and Unmanned Aerial Vehicles (UAVs), which are then flown, and acquired data are analyzed. Piloted in 2016 and repeated in 2017.

RESEARCH ACTIVITIES

Publications in Refereed Journals, Conference Proceedings and Encyclopedia Articles

1) "Uhuru Observations of the Globular Cluster X-ray Source NGC6712", Cominsky, L., Forman, W., Jones, C., and Tananbaum, H., *Astrophysical Journal*, **211**, L9 (1977)

2) "Transient X-ray Sources in the Galactic Plane", Cominsky, L., Jones, C., Forman, W., and Tananbaum, H., *Astrophysical Journal*, **224**, 46 (1978) Also reprinted in *X-ray Astronomy*, *Selected Reprints*, ed. Claude R. Canizares, American Association of Physics Teachers, 1986.

3) "The Fourth Uhuru Catalog of X-ray Sources", Forman, W., Jones, C., Cominsky, L., Julien, P., Murray, S., Peters, G., Tananbaum, H., and Giacconi, R., *Astrophysical Journal (Supplements)*, **38**, "No. 4" (1978)

4) "Discovery of 3.6 Second X-ray Pulsations from 4U0115+63", Cominsky, L., Clark, G. W., Li, F., Mayer, W., and Rappaport, S., *Nature*, **273**, 367 (1978)

5) "Orbital Elements of 4U0115+63 and the Nature of the Hard X-ray Transients", Rappaport, S., Clark, G. W., Cominsky, L., Joss, P. C., and Li, F., *Astrophysical Journal*, **211**, L1 (1978)

6) "Discovery of Optical Bursts from an X-ray Burst Source, MXB1735-44", Grindlay, J. E., McClintock, J. E., Canizares, C., van Paradijs, J., Cominsky, L., Li, F., and Lewin, W. H. G., *Nature*, **274**, 567 (1978)

7) "A 3-s Delay in an Optical Burst from X-ray Burst Source MXB1735-44", McClintock, J. E., Canizares, C., van Paradijs, J., Cominsky, L., Li, F. K., Lewin, W. H. G., and Grindlay, J. E., *Nature*, **279**, 47 (1979)

8) "The Steady Emission from MXB1730-335 (Rapid Burster)", van Paradijs, J., Cominsky, L., and Lewin, W. H. G., *Monthly Notices of the Royal Astronomical Society*, **189**, 387 (1979)

9) "On the Persistent Emission from X-ray Burst Sources and the Nature of the Galactic Bulge X-ray Sources", van Paradijs, J., Joss, P. C., Cominsky, L., and Lewin, W. H. G., *Nature*, **280**, 375 (1979)

10) "Detection of an Optical Burst Coincident with an X-ray Burst from MXB1837+05 (Ser X-1),

Hackwell, J. A., Grasdalen, G. L., Gehrz, R. D., van Paradijs, J., Cominsky, L., and Lewin, W. H. G., *Astrophysical Journal*, **223**, L115 (1979)

11) "X-ray Observations of 4U/MXB1735-44", Lewin, W. H. G., van Paradijs, J., Cominsky, L., and Holzner, S., *Monthly Notices of the Royal Astronomical Society*, **193**, 15 (1980)

12) "A Search for Pulsations and Eclipses from X-ray Burst Sources", Cominsky, L., Jernigan, J. G., Ossmann, W., Doty, J., van Paradijs, J., and Lewin, W. H. G., *Astrophysical Journal*, **242**, 1102 (1980)

13) "A Simultaneous Infrared and X-ray Burst Observation of Ser X-1", Lewin, W. H. G., Cominsky, L. R., Walker, A. R., and Robertson, B. C., *Nature*, **287**, 27 (1980)

14) "Repeatable Multiple-Peaked Structure in Type I X-ray Bursts", Hoffman, J. A., Cominsky, L., and Lewin, W. H. G., *Astrophysical Journal*, **240**, L27 (1980)

15) "Very Long Type II X-ray Bursts from the Rapid Burster", Basinska, E., Lewin, W. H. G., Cominsky, L., van Paradijs, J., and Marshall, F. J., *Astrophysical Journal*, **241**, 787 (1980)

16) "A Search for Apsidal Motion in 4U0115+63, Kelley, R., Rappaport, S., Brodheim, M. J., Cominsky, L., and Stothers, R., *Astrophysical Journal*, **251**, 630 (1981)

17) "X-ray Observations of the Cygnus X-1 'High State'", Ogawara, Y., Mitsuda, K., Masai, K., Vallerga, J., Cominsky, L., Grunsfeld, J., Kruper, J., and Ricker, G., *Nature*, **295**, 675 (1982)

18) "Simultaneous Optical and X-ray Bursts from the 1980 Outburst of 4U/MXB1635-53", Pedersen, H., Lub, J., Inoue, H., Koyama, K., Makishima, K., Matsuoka, M., Mitsuda, K., Murakami, T., Oda, M., Ogawara, Y., Ohashi, T., Shibazaki, N., Tanaka, Y., Hayakawa, S., Kuneida, H., Makino, F., Masai, K., Nagase, F., Tawara, Y., Miyamoto, S., Tsunemi, H., Yamashita, K., Kondo, I., Jernigan, J., van Paradijs, J., Beardsley, A., Cominsky, L., Doty, J., and Lewin, W. H. G., *Astrophysical Journal*, **263**, 325 (1982)

19) "Optical Bursts from 4U/MXB1636-53", Pedersen, H., van Paradijs, J., Motch, C., Cominsky, L., Lawrence, A., Lewin, W. H. G., Oda, M., Ohashi, T., and Matsuoka, M., *Astrophysical Journal*, **263**, 340 (1982)

20) "The 1980 Outburst of 4U0115+63 (V635 Cassiopeiae)", Kriss, G. A., Cominsky, L. R., Remillard, R. A., Williams, G., and Thorstensen, J. R., *Astrophysical Journal*, **266**, 806 (1983)

21) "X-ray, Radio, and Infrared Observations of the Rapid Burster (MXB1730-335) During 1979 and 1980", Lawrence, A., Cominsky, L., Lewin, W. H. G., Oda, M., Ogawara, Y., Inoue, H., Koyama, K., Makishima, K., Matsuoka, M., Murakami, T., Ohashi, T., Shibazaki, N., Tanaka, Y., Kondo, I., Hayakawa, S., Kuneida, H., Makino, F., Masai, K., Nagase, F., Tawara, Y., Miyamoto, S., Tsunemi, H., Yamashita, K., Dashido, T., Oka, R., Ohkawa, T., Maruyama, T., Yokoyama, T., Nicholson, G., Balonek, T., Dent, W., Glass, I., Carter, B., Jones, A. W., Selby, M., Martenez Roger, C., Sanchez Magro, C., Giles, A. B., Duldig, M., Pramesh Rao, A., Venugopal, V., Haynes, R., Jauncey, D., Okuda, H., Sato, S., Kobayashi, Y., Jugaku, J., Backman, D., Pogge, R., Hodge, P., Aller, H., and van Paradijs, J., *Astrophysical Journal*, **267**, 301 (1983)

22) "X-ray Burst Observations of Serpens X-1", Sztajno, M., Basinska, E., Cominsky, L., Marshall, F. J., and Lewin, W. H. G., *Astrophysical Journal*, **267**, 713 (1983)

23) "Irregular X-ray Variability from the Transient X-ray Burst Source MXB1659-29", Cominsky, L., Ossmann, W., and Lewin, W. H. G., *Astrophysical Journal*, **270**, 226 (1983)

24) "Simultaneous U, B, V, and X-ray Measurements of a Burst from 4U/MXB1636-53", Lawrence, A., Cominsky, L., Engelke, C., Jernigan, J., Lewin, W. H. G., Matsuoka, M., Mitsuda, K., Oda, M., Ohashi, T., Pedersen, H., and van Paradijs, J., *Astrophysical Journal*, **271**, 793 (1983)

25) "Optical Radiation Associated with γ-ray Bursts", London, Richard A., and Cominsky, Lynn R., *Astrophysical Journal*, **275**, L59 (1983)

26) "Discovery of Eclipses from the X-ray Burst Source MXB1659-29", Cominsky, L. R., and Wood, K. S., in *High Energy Transients in Astrophysics, Santa Cruz*, ed. Stanford E. Woosley, American Institute of Physics: New York, p. 139 (1984).

27) "X-ray Observations of the Burst Source MXB1728-34", Basinska, E. M., Lewin, W. H. G., Sztajno, M., Cominsky, L. R., and Marshall, F. J., *Astrophysical Journal*, **281**, 337 (1984)

28) "Discovery of a 7.1h Period and Eclipses from MXB1659-29", Cominsky, L. R., and Wood, K. S., *Astrophysical Journal*, **283**, 765 (1984)

29) "Delays of Optical Bursts in Simultaneous Optical and X-ray Observations of MXB 1636-53",

Matsuoka, M., Mitsuda, K., Ohashi, T., Inoue, H., Koyama, K., Makino, F., Makishima, K., Murakami, T., Oda, M., Ogawara, T., Shibazaki, N., Tanaka, Y., Tsuno, K., Miyamoto, S., Tsunemi, H., Yamashita, K., Hayakawa, S., Kunieda, H., Masai, K., Nagase, F., Tawara, Y., Kondo, I., Cominsky, L., Jernigan, J. G., Lawrence, A., Lewin, W. H. G., Pedersen, H., Motch, C., and van Paradijs, J., *Astrophysical Journal*, **283**, 774 (1984)

30) "An Absorption Event from NGC6624", Cominsky, L., Simmons, J., and Bowyer, S., *Astrophysical Journal*, **298**, 581 (1985)

31) "Time-dependent X- and γ-ray Reprocessing", Cominsky, L., London, R. A. and Klein, R. I., *Astrophysical Journal*, **315**, 162 (1987)

32) "Further Observations of the Eclipsing Transient X-ray Burst Source MXB1659-29", Cominsky, L., and Wood, K., *Astrophysical Journal*, **337**, 485 (1989)

33) "Multi-mission Observations of 4U1538-52", Cominsky, L., and Moraes, F., *Astrophysical Journal*, **370**, 670 (1991)

34) "Detection of X-ray Emission from the PSR 1259-63/SS 2883 Binary System", Cominsky, L., Roberts, M., and Johnston, S., *Astrophysical Journal*, **427**, 978 (1994) (SLAC Pub #6404)

35) "Detection of X-ray Emission from the PSR 1259-63/SS 2883 Binary System",

Cominsky, L., Roberts, M., and Johnston, S., in the *Proceedings of the Astronomical Society of the Pacific Conference on Interacting Binary Stars*, ed. A. Shafter, Astronomical Society of the Pacific: San Francisco, p. 424 (1994)

36) "An April, 1991 Outburst from 4U0115+63 observed by BATSE", Cominsky, L., Roberts, M., and Finger, M., in the *Proceedings of the Second Compton Gamma Ray Observatory Symposium*, eds. C.E. Fichtel, N. Gehrels, and J. P. Norris, American Institute of Physics: New York, p. 294 (1994) (SLAC Pub #6406)

37) "The Evolutionary Status of PSR1259-63", Cominsky, L., in the *Proceedings of the 4th Annual Astrophysics Conference in Maryland*, eds. Stephen S. Holt and Charles S. Day, American Institute of Physics: New York, p. 291 (1994) (SLAC Pub #6405)

38) "ROSAT Measurement of the Evolving Orbital Period in the Low Mass X-ray Binary EXO0748-676", Hertz, P., Ly, Y., Wood, K. S., and Cominsky, L. R., in *the Proceedings of the 4th Annual Astrophysics Conference in Maryland*, eds. Stephen S. Holt and Charles S. Day, American Institute of Physics: New York, p. 363 (1994)

39) "Hard X-ray Observations of A0535+262", Finger, M. H., Cominsky, L. R., Wilson, R. B., Harmon, B. A., and Fishman, G. J., in the *Proceedings of the 4th Annual Astrophysics Conference in Maryland*, eds. Stephen S. Holt and Charles S. Day, American Institute of Physics: New York, p. 459 (1994)

40) "Evidence Against Secular Evolution in the Orbital Period of the Low Mass X-ray Binary EXO0748-676", Hertz, P., Ly, Y., Wood, K. S., and Cominsky, L. R., in *the Proceedings of the ROSAT Science Symposium*, eds. E. M. Schlegel and R. Petre, American Institute of Physics: New York, p. 80 (1994)

41) "The X-ray Emission of the Pulsar-Be Star Binary PSR 1259-63", King, Andrew and Cominsky, Lynn, *Astrophysical Journal*, **435**, 411 (1994) (SLAC Pub #6446)

42) "Eclipse Timings of the Low Mass X-ray Binary EXO 0748-676: Statistical Arguments against Orbital Period Changes", Hertz, Paul, Wood, Kent S. and Cominsky, Lynn, *Astrophysical Journal*, **438**, 385 (1995)

43) "Observations of 4U1700-37 with BATSE", Rubin, B. C., Finger, M. H., Harmon, B. A., Paciesas, W. S., Fishman, G. J., Wilson, R. B., Wilson, C. A., Brock, M. N., Briggs, M. S., Pendleton, G. N., Cominsky, L. R. and Roberts, M. S., *Astrophysical Journal*, **459**, 259 (1996)

44) "Black Hole Astrophysics", Bender, Peter, Bloom, Elliott, Cominsky, Lynn, Ford, Holland, Harmon, Alan, Michelson, Peter, Novikov, Igor, Postnov, Konstantin, Scargle, Jeffrey, Swank, Jean, Wheeler, J. Craig, and Wood, Kent, in the *Proceedings of the 1994 Snowmass Summer Study on High Energy Physics: Particle and Nuclear Astrophysics and Cosmology in the Next Millenium*, eds. E. W. Kolb and R. D. Peccei, World Scientific: Singapore, p. 277 (1995) (SLAC Pub 95-6915)

45) "Eclipse Timing of the Low-Mass X-ray Binary EXO 0748-676: II. Detection of an Apparent Orbital Period Change and of Orbital Period Noise", Hertz, Paul, Wood, Kent S., and Cominsky, Lynn R., *Astrophysical Journal*, **486**, 1000 (1997)

46) "Complex Outburst Behaviour from the Black Hole Candidate 4U 1630-47", Kuulkers, E., Parmar, A. N., Kitamoto, S., Cominsky, L. R. and Sood, R. K., *Monthly Notices of the Royal Astronomical Society*, **291**, 81 (1997)

47) "X-ray Emission from Compact Sources", Cominsky, L., in the Proceedings of the Stanford Linear Accelerator Center XXVI Summer Institute on Particle Physics, "*Gravity, from the Hubble Length to the Planck Length*" 55, (2001)

48) "X-ray/Gamma-ray Observations of the PSR B1259-63/SS2883 System near Apastron", Hirayama, M., Cominsky, L. R., Kaspi, V. M., Nagase, F., Tavani, M., Kawai, N. and Grove, J. E., *Astrophysical Journal*, **521**, 718 (1999)

49) "A Search for Aperiodic Millisecond Variability in Cygnus X-1", Chaput, C., Bloom, E., Cominsky, L., G. Godfrey, Scargle, J., Shabad, G., Wen, H., Wood, K., and Yentis, D., **541**, 1026 (2000).

50) "Astronomy and the News Media", S. P. Maran, L. R. Cominsky and L. A. Marshall, in *Information Handing in Astronomy*, ed. A. Heck, (Dordrecht:Kluwer), 13, (2000).

51) "Phase Dependent Spectral Variability in 4U1907+09", Roberts, M. S. E., Michelson, P. F., Leahy, D. A., Hall, T. A., Finley, J. P., Cominsky, L. R., and Srinivasan, R., *Astrophysical Journal*, **555**, 967 (2001).

52) "How X-ray Experiments See Black Holes: Past, Present and Future", L. Cominsky, in Cosmology and Elementary Particle Physics, Proceedings of the 30th Coral Gables Conference, ed. V. Kursonoglu, Steven L. Mintz, and Arnold Perlmutter, (AIP), p.112 (2002)

53) "Communicating Astronomy to the Media" S. P. Maran, L. R. Cominsky and L.A. Marschall, in "Astronomy Communication," ed. A. Heck and C. Madsen, (Dordrecht:Kluwer), p.19-29 (2003)

54) "The Swift Gamma-Ray Burst Mission" N. Gehrels and 72 authors including L. Cominsky, *Astrophysical Journal*, **611**, 1005 (2004)

55) "A short gamma-ray burst apparently associated with an elliptical galaxy at redshift z = 0.225", N. Gehrels and 77 authors including L. Cominsky, *Nature*, **437**, 851 (2005).

56) "Swift Panchromatic Observations of the Bright Gamma-Ray Burst GRB 050525a,"A. J. Blustin and 65 authors, including L. Cominsky, *Astrophysical Journal*, **637**, 901 (2006)

57) Articles on Fermi, Swift and XMM-Newton for *Space Exploration and Humanity: An Historical Encyclopedia*, published by ABC-CLIO and the American Astronomical Society, ed. Stephen B. Johnson. Published August, 2010. For more information, see: <u>http://www.abc-clio.com/products/overview.aspx?productid=109018&priceid=103202</u>

ISBN: 978-1-85109-514-8

58) Article on Gamma-ray Bursts for the McGraw Hill Encyclopedia of Science & Technology, 10th Edition, (2007). Updated in 2012 and 2018. Now called Access Science. https://www.accessscience.com/content/gamma-ray-burst/801000.

59) "Gamma-ray bursts: Huge explosions in the early Universe" G. Cusamano and 32 authors, including L. Cominsky, *32*, *Nature*, **440**, pp. 164 (2006).

60) "Swift observations of the prompt X-ray emission and afterglow from GRB050126 and GRB050219A" M. R. Goad and 35 authors, including L. Cominsky, A&A, **449**, pp.89-100 (2006)

61) "Swift and XMM-Newton observations of the dark GRB 050326" A. Moretti and 33 authors, including L. Cominsky, A&A, **451**, pp.777-787 (2006)

62) "The association of GRB 060218 with a supernova and the evolution of the shock wave" S. Campana and 39 authors, including L. Cominsky, *Nature*, **442**, pp. 1008-1010 (2006).

63) "Swift X-Ray Telescope Observations of the Deep Impact Collision" R. Willingale and 17 authors, including L. Cominsky, Ap. J., **649**, pp. 541-552 (2006)

64) "Swift observations of GRB 050904: the most distant cosmic explosion ever observed" G. Cusamano and 33 authors, including L. Cominsky, A&A, **462**, pp.73-80 (2007)

65) "The Fermi Gamma-Ray Space Telescope Discovers the Pulsar in the Young Galactic Supernova Remnant CTA 1" A. A. Abdo and 185 authors, including L. Cominsky, *Science*, **322**, pp. 1218-1221. (2008)

66) "Fermi Observations of High-Energy Gamma-Ray Emission from GRB 080916C" A. A. Abdo and 253 authors, including L. Cominsky, *Science*, **323**, pp. 1688- (2009)

67) "Discovery of Pulsed γ-Rays from the Young Radio Pulsar PSR J1028-5819 with the Fermi Large Area Telescope" A. A. Abdo and 172 authors, including L. Cominsky, Ap. J.L., **695**, pp. L72-L77 (2009)

68) "Fermi Large Area Telescope Observations of the Vela Pulsar" A. A. Abdo and 234 authors, including L. Cominsky, Ap. J., **696**, pp. 1084-1093 (2009)

69) "Measurement of the Cosmic Ray e^++e^- Spectrum from 20GeV to 1TeV with the Fermi Large Area Telescope" A. A. Abdo and 188 authors, including L. Cominsky, Phys. Rev. Let., 102, , issue18, id. 181101 (2009)

70) "Fermi Discovery of Gamma-ray Emission from NGC 1275" A. A. Abdo and 169 authors, including L. Cominsky, Ap. J., **699**, pp. 31-39 (2009)

71) "Early Fermi Gamma-ray Space Telescope Observations of the Quasar 3C 454.3" A. A. Abdo and 180 authors, including L. Cominsky, Ap. J., **699**, pp. 817-823 (2009)

72) "Pulsed Gamma Rays from the Millisecond Pulsar J0030+0451 with the Fermi Large Area Telescope" A. A. Abdo and 171 authors, including L. Cominsky, Ap. J., **699**, pp. 1171-1177 (2009)

73) "Bright Active Galactic Nuclei Source List from the First Three Months of the Fermi Large Area Telescope All-Sky Survey" A. A. Abdo and 192 authors, including L. Cominsky, Ap. J., **700**, pp. 597-622 (2009)

74) "Fermi/Large Area Telescope Bright Gamma-Ray Source List" A. A. Abdo and 209 authors, including L. Cominsky, Ap. J. Supp., **183**, pp. 46-66 (2009)

75) "Pulsed Gamma-rays from PSR J2021+3651 with the Fermi Large Area Telescope" A. A. Abdo and 186 authors, including L. Cominsky, Ap. J., **700**, pp. 1059-1066 (2009)

76) "Fermi LAT Observations of LS I +61°303: First Detection of an Orbital Modulation in GeV Gamma Rays" A. A. Abdo and 182 authors, including L. Cominsky, Ap. J. Lett., **701**, pp. L123-L128 (2009)

77) "A Population of Gamma-Ray Millisecond Pulsars Seen with the Fermi Large Area Telescope" A. A. Abdo and 201 authors, including L. Cominsky, *Science*, **325**, pp. 848- (2009).

78) "Fermi LAT Discovery of Extended Gamma-Ray Emission in the Direction of Supernova Remnant W51C" A. A. Abdo and 176 authors, including L. Cominsky, Ap. J. Lett., **706**, pp. L1-L6 (2009)

79) "Fermi/LAT observations of LS 5039" A. A. Abdo and 186 authors, including L. Cominsky, Ap. J. Lett., **706**, pp. L56-L61 (2009)

80) "Fermi Observations of GRB 090902B: A Distinct Spectral Component in the Prompt and Delayed Emission" A. A. Abdo and 205 authors, including L. Cominsky, Ap. J. Lett., **706**, pp. L138-L144 (2009)

81) "A limit on the variation of the speed of light arising from quantum gravity effects" A. A. Abdo and 208 authors, including L. Cominsky, Nature, **462**, pp. 331-334 (2009)

82) "Fermi Observations of High-energy Gamma-ray Emission from GRB 080825C" A. A. Abdo and 180 authors, including L. Cominsky, Ap. J., **707**, pp. 580-592 (2009)

83) "Fermi Observations of TeV-Selected Active Galactic Nuclei" A. A. Abdo and 179 authors, including L. Cominsky, Ap. J., **707**, pp. 1310-1333 (2009)

84) "Modulated High-Energy Gamma-Ray Emission from the Microquasar Cygnus X-3" A. A. Abdo and 179 authors, including L. Cominsky, *Science*, **326**, pp. 1512- (2009)

85) "Fermi Large Area Telescope Observations of the Crab Pulsar And Nebula" A. A. Abdo and 191 authors, including L. Cominsky Ap.J., **708**, pp. 1254-1267 (2010)

86) "Gamma-ray and Radio Properties of Six Pulsars Detected by the Fermi Large Area Telescope" A. A. Abdo and 191 authors, including L. Cominsky, Ap.J., **708**, pp. 1254-1267 (2010)

87) "Fermi Observations of Cassiopeia and Cepheus: Diffuse Gamma-ray Emission in the Outer Galaxy" P. Weltevrede and 153 authors, including L. Cominsky, Ap.J., **708**, pp. 1426-1441 (2010).

88) "A change in the optical polarization associated with a γ -ray flare in the blazar 3C279" The Fermi LAT Collaboration and 265 authors, including L. Cominsky, *Nature*, , **463**, 7283, pp. 919-923 (2010).

89) "Gamma-Ray Emission from the Shell of Supernova Remnant W44 Revealed by the Fermi LAT" A. A. Abdo and 181 authors, including L. Cominsky, *Science*, **327**, pp. 1103- (2010).

90) "Observations of the Large Magellanic Cloud with Fermi" A. A. Abdo and 179 authors, including L. Cominsky, Astronomy and Astrophysics, Volume 512, id.A7 (2010)

91) "PSR J1907+0602: A Radio-Faint Gamma-Ray Pulsar Powering a Bright TeV Pulsar Wind Nebula" A. A. Abdo and 180 authors, including L. Cominsky, Ap. J., **711**, pp. 64-74 (2010).

92) "Observation of Supernova Remnant IC 443 with the Fermi Large Area Telescope" A. A. Abdo and 172 authors, including L. Cominsky, Ap. J., **712**, pp. 459-468 (2010)

93) "Fermi Detection of Delayed GeV Emission from the Short Gamma-Ray Burst 081024B" A. A. Abdo and 208 authors, including L. Cominsky, Ap. J., **712**, pp. 558-564 (2010).

94) "Spectrum of the Isotropic Diffuse Gamma-Ray Emission Derived from First-Year Fermi Large Area Telescope Data" A. Abdo and 183 authors, including L. Cominsky, Phys. Rev. Lett., **104**, id. 101101 (2010).

95) "The First Fermi Large Area Telescope Catalog of Gamma-ray Pulsars" A. Abdo and 217 authors, including L. Cominsky, Ap. J. Supp., **187**, pp. 460-494 (2010).

96) "Constraints on dark matter annihilation in clusters of galaxies with the Fermi large area telescope" M. Ackermann and 141 authors, including L. Cominsky, Journal of Cosmology and Astroparticle Physics, Issue 05, pp. 025 (2010).

97) "Fermi Gamma-Ray Imaging of a Radio Galaxy" A. Abdo and 182 authors, including L. Cominsky, Science, **328**, Issue 5979, pp. 725- (2010).

98) "The Spectral Energy Distribution of Fermi Bright Blazars" A. Abdo and 257 authors including L. Cominsky, Ap.J., **716**, pp. 30-70 (2010).

99) "GeV Gamma-ray Flux Upper Limits from Clusters of Galaxies" M. Ackermann and 169 authors, including L. Cominsky, Ap.J.L., **717**, pp. L71-L78 (2010).

100) "Fermi Large Area Telescope View of the Core of the Radio Galaxy Centaurus A" A. Abdo and 198 authors, including L. Cominsky, Ap.J., **719**, pp. 1433-1444 (2010).

101) "Gamma-ray Light Curves and Variability of Bright Fermi-detected Blazars" A. Abdo and 171 authors, including L. Cominsky, Ap.J., **722**, pp. 520-542 (2010).

102) "Fermi Large Area Telescope Observation of a Gamma-ray Source at the Position of Eta Carinae" A. Abdo and 168 authors, including L. Cominsky, Ap.J. **723**, pp. 649-657 (2010).

103) "Discovery of High-energy Gamma-ray Emission from the Binary System PSR B1259–63/LS 2883 around Periastron with Fermi" A. Abdo and 171 authors, including L. Cominsky, Ap.J., **736**, p. L15 (2011).

104) "Fermi Detection of a Luminous γ-Ray Pulsar in a Globular Cluster," P. Freire and 151 authors, including L. Cominsky, Science, Volume 334, Issue 6059, pp. 1107- (2011)

105) "Fermi Large Area Telescope Second Source Catalog" P. Nolan and 226 authors, including L. Cominsky, Ap. J. Supp., **199**, p. 31 (2012)

106) "A Multi-Institutional Investigation of Students' Preinstructional Ideas About Cosmology" Janelle M. Bailey, Roxanne Sanchez, Kim Coble, Donna Larrieu, Geraldine Cochran & Lynn R. Cominsky, Astronomy Education Review, 2012, AER, 11 (1), 010302, doi: <u>http://dx.doi.org/10.3847/AER2012029</u>

107) "Detection of the Characteristic Pion-Decay Signature in Supernova Remnants" Ackermann, M. and 168 authors, including L. Cominsky, Science, Volume 339, Issue 6121, pp. 807-811 (2013)

108) "Investigating Student Ideas about Cosmology I: Distances, Structure, and Composition of the Universe" Kim Coble, Carmen T. Camarillo, Melissa D. Nickerson, Laura E. Trouille, Janelle M. Bailey, Geraldine L. Cochran, & Lynn R. Cominsky, Astronomy Education Review, 2013, AER, 12 (1), 010102, doi:<u>http://dx.doi.org/10.3847/AER2012038</u>

109) "The Nuclear Spectroscopic Telescope Array (NuSTAR) High-energy X-Ray Mission" Fiona Harrison and 80 authors, including L. Cominsky, Ap.J. **770**, 103, 19 (2013).

110) "Investigating Student Ideas about Cosmology II: Composition of the Universe" Kim Coble, Melissa D. Nickerson, Carmen T. Camarillo, Janelle M. Bailey, Laura E. Trouille, Geraldine L. Cochran, & Lynn R. Cominsky, Astronomy Education Review 2013, AER, 12 (1), 010111, doi:<u>http://dx.doi.org/10.3847/AER2012039</u>

111) "Investigating Student Ideas about Cosmology III: Big Bang Theory, Expansion, Age and History of the Universe" Laura E. Trouille, Kim Coble, Carmen T. Camarillo, Melissa D.

Nickerson, Geraldine L. Cochran, Janelle M. Bailey, & Lynn R. Cominsky, Astronomy Education Review 2013, AER, 12 (1), 010110, doi:<u>http://dx.doi.org/10.3847/AER2013016</u>

112) "Associating Long-term γ -Ray Variability with the Superorbital Period of LS I +61°303" Ackermann, M.. and 128 co-authors including L. Cominsky, The Astrophysical Journal Letters, Volume 773, Issue 2, article id. L35, 7 pp. (2013)

113) "The Second Fermi Large Area Telescope Catalog of Gamma-Ray Pulsars" Abdo, A. and 154 co-authors including L. Cominsky, The Astrophysical Journal Supplement, Volume 208, Issue 2, article id. 17, 59 pp. (2013).

114) "The First Fermi-LAT Catalog of Sources above 10 GeV" Ackermann, M. and 158 coauthors including L. Cominsky, The Astrophysical Journal Supplement, Volume 209, Issue 2, article id. 34, 34 pp. (2013)

115) "The First Pulse of the Extremely Bright GRB 130427A: A Test Lab for Synchrotron Shocks" Preece, R. and 158 co-authors including L. Cominsky, Science, Volume 343, Issue 6166, pp. 51-54 (2014).

116) "Fermi-LAT Observations of the Gamma-Ray Burst GRB 130427A" Ackermann, M. and 181 co-authors including L. Cominsky, Science, Volume 343, Issue 6166, pp. 42-47 (2014)

117) "Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005-2010" Aasi, J. and 853 coauthors including L. Cominsky, Physical Review D, Volume 89, Issue 10, id.102006 (2014)

118) "The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations" Aasi, J. and 888 coauthors including L. Cominsky, Classical and Quantum Gravity, Volume 31, Issue 11, article id. 115004 (2014)

119) "Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run" Aasi, J. and 850 coauthors including L. Cominsky, Physical Review D, Volume 89, Issue 12, id.122003 (2014)

120) "Impulsive and Long Duration High-energy Gamma-Ray Emission from the Very Bright 2012 March 7 Solar Flares" Ajello, M. and 159 co-authors including L. Cominsky, The Astrophysical Journal, Volume 789, Issue 1, article id. 20, 15 pp. (2014).

121) "Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors" Aasi, J. and 893 co-authors including L. Cominsky, Phys. Rev. D., Volume 89, Issue 12, id.122004 (2014)

122) "Search for Gravitational Waves Associated with γ -ray Bursts Detected by the Interplanetary Network" Aasi, J. and 901 co-authors including L. Cominsky, Phys. Rev. Lett., Volume 113, Issue 1, id.011102 (2014)

123) "Implementation of an F-statistic all-sky search for continuous gravitational waves in Virgo VSR1 data" Aasi, J. and 848 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 31, Issue 16, article id. 165014 (2014)

124) "First all-sky search for continuous gravitational waves from unknown sources in binary systems" Aasi, J. and 851 co-authors including L. Cominsky, Phys. Rev. D., Volume 90, Issue 6, id.062010 (9/2014)

125) "Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data" Aasi, J. and 898 co-authors including L. Cominsky, Phys. Rev. D, Volume 91, Issue 2, id.022004 (1/2015)

126) "Advanced LIGO" Aasi, J. and 702 co-authors including L. Cominsky Classical and Quantum Gravity, Volume 32, Issue 7, article id. 074001 (4/2015).

127) "Directed Search for gravitational waves from Scorpius X-1 with initial LIGO data" Aasi, J. and 901 co-authors including L. Cominsky, Physical Review D, Volume 91, Issue 6, id.062008 (3/2015)

128) "The LIGO Scientific Collaboration" Aasi, J. and 702 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 32, Issue 7, article id. 074001 (2015) 2015CQGra..32g4001T (4/2015)

129) "Fermi Large Area Telescope Third Source Catalog" Acero, F. and 171 co-authors including L. Cominsky, The Astrophysical Journal Supplement, Volume 218, Issue 2, article id. 23, 41 pp. (6/2015)

130) "The Third Catalog of Active Galactic Nuclei Detected by the Fermi Large Area Telescope" Ackermann, M. and 147 co-authors including L. Cominsky, The Astrophysical Journal, Volume 810, Issue 1, article id. 14, 34 pp. (8/2015).

131) "Searches for Continuous Gravitational Waves from Nine Young Supernova Remnants", Aasi, J. and 893 co-authors including L. Cominsky, Ap. J., 813, Issue 1, article id. 39, 16 pp. (10/2015).

132) "2FHL: The Second Catalog of Hard Fermi-LAT Sources," Ackermann, M. and 153 coauthors including L. Cominsky, Ap. J. Suppl. Volume 222, Issue 1, article id. 5, 19 pp. (1/2016)

133) "Astrophysical Implications of the Binary Black-hole Merger GW150914" Abbott, B.P. and 964 co-authors including L. Cominsky, Ap. J. Volume 818, Issue 2, article id. L22, 15 pp. (2/2016)

134) "Observation of Gravitational Waves from a Binary Black Hole Merger" Abbott, B. P. and 1003 co-authors including L. Cominsky, Phys. Rev. Lett., Volume 116, Issue 6, id.061102 (2/2016)

135) "Fermi-LAT Observations of High-Energy Gamma-Ray Emission toward the Galactic

Center" Ajello, M. and 113 co-authors including L. Cominsky, Ap. J. V olume 819, Issue 1, article id. 44, 30 pp. (2/2016).

136) "GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes" Abbott, B. P. and 949 co-authors including L. Cominsky, Phys. Rev. Lett., Volume 116, Issue 13, id.131102 (3/2016)

137) "GW150914: The Advanced LIGO Detectors in the Era of First Discoveries" Abbott, B. P. and 951 co-authors including L. Cominsky, Phys. Rev. Lett., Volume 116, Issue 13, id.131103 (3/2016)

138) "Resolving the Extragalactic γ -Ray Background above 50 GeV with the Fermi Large Area Telescope" Ackermann, M. and 128 co-authors including L. Cominsky, Physical Review Letters, Volume 116, Issue 15, id.151105 (4/2016)

139) "Fermi-LAT Observations of the LIGO Event GW150914" Ackermann, M. and 166 coauthors including L. Cominsky, Ap. J. L., Volume 823, Issue 1, article id. L2, 13 pp. (5/2016).

140) "The First Fermi LAT Supernova Remnant Catalog", Acero, F. and 160 co-authors including L. Cominsky, Ap. J. S., Volume 224, Issue 1, article id. 8, 50 pp. (5/2016)

141) "GW150914: First results from the search for binary black hole coalescence with Advanced LIGO" Abbott, B. P. and 981 co-authors including L. Cominsky, Physical Review D, Volume 93, Issue 12, id.122003 (6/2016)

142) "Observing gravitational-wave transient GW150914 with minimal assumptions" Abbott, B. P. and 969 co-authors including L. Cominsky, Physical Review D, Volume 93, Issue 12, id.122004 (6/2016)

143) "Search for transient gravitational waves in coincidence with short-duration radio transients during 2007-2013" Abbott, B. P. and 999 co-authors including L. Cominsky, Physical Review D, Volume 93, Issue 12, id.122008 (6/2016)

144) "High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube" Adrián-Martínez, S.. and 1400 co-authors including L. Cominsky, Physical Review D, Volume 93, Issue 12, id.122010 (6/2016)

145) "Tests of General Relativity with GW150914" Abbott, B. P. and 981 co-authors including L. Cominsky, Physical Review Letters, Volume 116, Issue 22, id.221101 (6/2016)

146) "Properties of the Binary Black Hole Merger GW150914" Abbott, B. P. and 989 co-authors including L. Cominsky, Physical Review Letters, Volume 116, Issue 24, id.241102 (6/2016)

147) "GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence" Abbott, B. P. and 978 co-authors including L. Cominsky, Physical Review Letters, Volume 116, Issue 24, id.241103 (6/2016)

148) "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" Abbott, B. P. and 1573 co-authors including L. Cominsky, Ap. J. L., Volume 826, Issue 1, article id. L13, 8 pp. (7/2016)

149) "Supplement: "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" (2016, ApJL, 826, L13)" Abbott, B. P. and 1573 co-authors including L. Cominsky, Ap. J. S., Volume 225, Issue 1, article id. 8, 15 pp. (7/2016).

150) "Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914" Abbott, B. P. and 965 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 33, Issue 13, article id. 134001 (7/2016).

151) "Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data" Abbott, B. P. and 965 co-authors including L. Cominsky, Physical Review D, Volume 94, Issue 4, id.042002 (8/2016)

152) "Binary Black Hole Mergers in the First Advanced LIGO Observing Run" Abbott, B. P. and 974 co-authors including L. Cominsky, Physical Review X, Volume 6, Issue 4, id.041015 (10/2016)

153) "First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors" Abbott, B. P. and 968 co-authors including L. Cominsky, Physical Review D, Volume 94, Issue 10, id.102001 (11/2016)

154) "Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project" Abbott, B. P. and 957 co-authors including L. Cominsky, Physical Review D, Volume 94, Issue 10, id.102002 (11/2016)

155) "Upper Limits on the Rates of Binary Neutron Star and Neutron Star-Black Hole Mergers from Advanced LIGO's First Observing Run" Abbott, B. P. and 959 co-authors including L. Cominsky, Astrophysical Journal Letters, Volume 832, Issue 2, article id. L21, 15 pp. (12/2016)

156) "The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914" Abbott, B. P. and 966 co-authors including L. Cominsky, Astrophysical Journal Letters, Volume 833, Issue 1, article id. L1, 8 pp. (12/2016)

157) "Supplement: "The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914" (2016, ApJL, 833, L1) Abbott, B. P. and 966 co-authors including L. Cominsky, Astrophysical Journal Supplement, Volume 227, Issue 2, article id. 14, 11 pp. (12/2016)

158) "Exploring the sensitivity of next generation gravitational wave detectors" Abbott, B. P. and 722 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 34, Issue 4, article id. 044001 (2/2017)

159) "All-sky search for short gravitational-wave bursts in the first Advanced LIGO run"

Exploring the sensitivity of next generation gravitational wave detectors" Abbott, B. P. and 987 co-authors including L. Cominsky, Physical Review D, Volume 95, Issue 4, id.042003 (2/2017)

160) "Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run" Abbott, B. P. and 996 co-authors including L. Cominsky, Physical Review Letters, Volume 118, Issue 12, id.121101 (3/2017)

161) "Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run" Abbott, B. P. and 997 co-authors including L. Cominsky, Physical Review Letters, Volume 118, Issue 12, id.121102 (3/2017)

162) "First Search for Gravitational Waves from Known Pulsars with Advanced LIGO" Abbott,B. P. and 1005 co-authors including L. Cominsky, Ap. J., Volume 839, Issue 1, article id.12, 19 pp. (4/2017)

163) "Effects of waveform model systematics on the interpretation of GW150914" Abbott, B. P. and 1003 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 34, Issue 10, article id. 104002 (5/2017)

164) "Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B" Abbott, B. P. and 1005 co-authors including L. Cominsky, Ap. J., 841, article id. 89, 18 pp., (6/2017)

165) "GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2" Abbott, B. P. and 1050 co-authors including L. Cominsky, Physical Review Letters, Volume 118, Issue 22, id.221101 (6/2017)

166) "Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO" Abbott, B. P. and 1042 co-authors including L. Cominsky, Physical Review D, Volume 96, Issue 2, id.022001, (7/2017)

167) "Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube" Albert, A.. and 1416 co-authors including L. Cominsky, Physical Review D, Volume 96, Issue 2, id.022005, (7/2017)

168) "Fermi Observations of the LIGO Event GW170104" Goldstein, A. and 148 co-authors including L. Cominsky, Ap. J. L. Volume 846, Issue 1, article id. L5, 6 pp. (9/2017)

169) "Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Crosscorrelation Search in Advanced LIGO Data" Abbott, B. P. and 1048 co-authors including L. Cominsky, Ap. J., Volume 847, Issue 1, article id. 47, 14 pp. (9/2017)

170) "All-sky search for periodic gravitational waves in the O1 LIGO data" Abbott, B. P. and 1048 co-authors including L. Cominsky, Physical Review D, Volume 96, Issue 6, id.062002 (9/2017)

171) "Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817

and GRB 170817A" Abbott, B. P. and 1155 co-authors including L. Cominsky, Ap. J. (Lett), Volume 848, Issue 2, article id. L13, 27 pp/ (10/2017)

172) "Multi-messenger Observations of a Binary Neutron Star Merger" Abbott, B. P. and 3673 co-authors including L. Cominsky, Ap. J. (Lett), Volume 848, Issue 2, article id. L12, 59pp. (10/2017)

173) "GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral"Abbott, B. P. and 1125 co-authors including L. Cominsky, Physical Review Letters, Volume 119, Issue 16, id.161101 (10/2017)

174) "GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence"B. P. and 1109 co-authors including L. Cominsky, Physical Review Letters, Volume 119, Issue 14, id.141101 (10/2017)

175) "A gravitational-wave standard siren measurement of the Hubble constant" Abbott, B. P. and 1313 co-authors including L. Cominsky, Nature, Volume 551, Issue 7678, pp. 85-88 (11/2017).

176) "Investigating Undergraduate Students' Ideas About the Fate of the Universe" Conlon, M., Coble, K., Bailey, J. M., and Cominsky, L. R. 2017. Physical Review Physics Education Research, Volume 13, Issue 2, id.020128 (12/2017)

177) "Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory" Albert, A. and 1944 co-authors including L. Cominsky, <u>2017ApJ...850L..35A</u> (12/2017)

178) "Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817" Abbott, B. P. and 1102 co-authors including L. Cominsky, <u>2017ApJ...850L..39A</u> (12/2017)

179) "On the Progenitor of Binary Neutron Star Merger GW170817" Abbott, B. P. and 1097 coauthors including L. Cominsky, <u>2017ApJ...850L..40A</u> (12/2017)

180) "Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817" Abbott, B. P. and 1107 co-authors including L. Cominsky, <u>2017ApJ...851L..16A</u> (12/2017)

181) "GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence" Abbott, B. P. and 1104 co-authors including L. Cominsky, <u>2017ApJ...851L..35A</u> (12/2017)

182) "First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data" Abbott, B. P. and 1041 co-authors including L. Cominsky, 2017PhRvD..9612004A (12/2017)

183) "First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data" Abbott, B. P. and 1098 co-authors including L. Cominsky, 2017PhRvD..9612006A (12/2017)

184) "Education and public outreach in astronomy and beyond" Lynn R. Cominsky, Nature Astronomy, Volume 2, p. 14-15 (1/2018)

185) "First Search for Nontensorial Gravitational Waves from Known Pulsars" Abbott, B. P. and 1053 co-authors including L. Cominsky, <u>2018PhRvL.120c1104A</u> (1/2018)

186) "All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run" Abbott, B. P. and 990 co-authors including L. Cominsky, <u>2018CQGra..35f5009A</u> (3/2018)

187) "Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run" Abbott, B. P. and 959 co-authors including L. Cominsky, 2018CQGra..35f5010A (3/2018)

188) "Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA" Abbott, B. P. and 1099 co-authors including L. Cominsky, Living Reviews in Relativity, Volume 21, Issue 1, article id. 3, 57 (4/2018)

189) "Constraints on cosmic strings using data from the first Advanced LIGO observing run" Abbott, B. P. and 1044 co-authors including L. Cominsky, Physical Review D, Volume 97, Issue 10, id.102002, <u>2018PhRvD.97j2002A</u> (5/2018)

190) "Full band all-sky search for periodic gravitational waves in the O1 LIGO data" Abbott, B. P. and 1044 co-authors including L. Cominsky, Physical Review D, Volume 97, Issue 10, id.102003 <u>2018PhRvD.97j2003A</u> (5/2018)

191) "Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background" Abbott, B. P. and 1100 co-authors including L. Cominsky, Physical Review Letters, Volume 120, Issue 20, id.201102 <u>2018PhRvL.120t1102A</u> (5/2018)

192) "Fermi-LAT Observations of LIGO/Virgo Event GW170817" Ajello, M. and 135 coauthors including L. Cominsky, The Astrophysical Journal, Volume 861, Issue 2, article id. 85, 10 pp. <u>2018ApJ...861...85A</u> (7/2018)

193) "Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run" Abbott, B. P. and 1138 co-authors including L. Cominsky, Physical Review Letters, Volume 121, Issue 23, id.231103 <u>2018PhRvL.121w1103A</u> (12/2018)

194) "Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube" Albert, A. and 1593 co-authors including L. Cominsky, The Astrophysical Journal, Volume 870, Issue 2, article id. 134, 16 pp. <u>2019ApJ...870..134A</u> (1/2019).

195) "A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run" Burns, E. and 1163 co-authors including L. Cominsky, The Astrophysical Journal, Volume 871, Issue 1, article id. 90, 12 pp. <u>2019ApJ...871...90B</u> (1/2019)

196) "Constraining the p -Mode-g -Mode Tidal Instability with GW170817" Abbott, B. P. and 1140 co-authors including L. Cominsky, Physical Review Letters, Volume 122, Issue 6, id.061104, 10.1103/PhysRevLett.122.061104 (2/2019)

197) "Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run" Abbott, B. P. and 1120 co-authors including L. Cominsky, The Astrophysical Journal, Volume 874, Issue 2, article id. 163, 14 pp. 2019ApJ...874..163A (4/2019)

198) "Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO" Abbott, B. P. and 1132 co-authors including L. Cominsky, The Astrophysical Journal, Volume 875, Issue 2, article id. 122, 15 pp. <u>2019ApJ...875..122A</u> (4/2019).

199) "Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817" Abbott, B. P. and 1141 co-authors including L. Cominsky, The Astrophysical Journal, Volume 875, Issue 2, article id. 160, 19 pp. <u>2019ApJ...875..160A</u> (4/2019).

200) "Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run" Abbott, B. P. and 1131 co-authors including L. Cominsky, The Astrophysical Journal, Volume 875, Issue 2, article id. 161, 20 pp. 2019ApJ...875..161A (4/2019).

201) "First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binary–Black-hole Merger GW170814" Abbott, B. P. and 1204 co-authors including L. Cominsky, The Astrophysical Journal Letters, Volume 876, Issue 1, article id. L7, 15 pp. <u>2019ApJ...876L...78</u> (5/2019).

202) "All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run" Abbott, B. P. and 113 co-authors including L. Cominsky, Physical Review D, Volume 99, Issue 10, id.104033, <u>10.1103/PhysRevD.99.104033</u> (5/2019)

203) "Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run" Abbott, B. P. and 1137 co-authors including L. Cominsky, Physical Review D, Volume 99, Issue 12, id.122002, <u>10.1103/PhysRevD.99.122002</u> (6/2019)
204) "Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015-2017 LIGO Data" Abbott, B. P. and 1153 co-authors including L. Cominsky, The Astrophysical Journal, Volume 879, Issue 1, article id. 10, 28 pp. (7/2019).

205) "All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data" Abbott, B. P. and 1141 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 2, id.024004 doi:10.1103/PhysRevD.100.024004 (7/2019)

206) "All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run" Abbott, B. P. and 1141 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 2, id.024017 <u>10.1103/PhysRevD.100.024017</u> (7/2019)

207) "Tests of General Relativity with GW170817" Abbott, B. P. and 1149 co-authors including L. Cominsky, Physical Review Letters, Volume 123, Issue 1, id.011102, doi:10.1103/PhysRevLett.123.011102 (7/2019)

208) "GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs" Abbott, B. P. and 1150 coauthors including L. Cominsky, Physical Review X, Volume 9, Issue 3, id.031040 <u>10.1103/PhysRevX.9.031040</u> (7/2019)

209) "Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo" Abbott, B. P. and 1140 co-authors including L. Cominsky, The Astrophysical Journal Letters, Volume 882, Issue 2, article id. L24, 30 pp. (9/2019)

210) "Search for the isotropic stochastic background using data from Advanced LIGO's second observing run" Abbott, B. P. and 1135 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 6, id.061101 <u>10.1103/PhysRevD.100.061101</u> (9/2019)

211) "Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs" Abbott, B. P. and 1134 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 6, id.062001 <u>10.1103/PhysRevD.100.062001</u> (9/2019)

212) "Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network" Abbott, B. P. and 1198 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 6, id.064064 <u>10.1103/PhysRevD.100.064064</u> (9/2019)

213) "Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs" Abbott, B. P. and 1185 co-authors including L. Cominsky, The Astrophysical Journal, Volume 883, Issue 2, article id. 149, 10 pp. (10/2019).

214) "Search for Subsolar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run" Abbott, B. P. and 1189 co-authors including L. Cominsky, Physical Review Letters, Volume 123, Issue 16, id.161102 <u>10.1103/PhysRevLett.123.161102</u> (10/2019)

215) "Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo" Abbott, B. P. and 1198 co-

authors including L. Cominsky, The Astrophysical Journal, Volume 886, Issue 1, article id. 75, 15 pp. (11/2019)

216) "Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1" Abbott, B. P. and 1144 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 10, id.104036, <u>10.1103/PhysRevD.100.104036</u> (11/2019)

217) "Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model" Abbott, B. P. and 1136 co-authors including L. Cominsky, Physical Review D, Volume 100, Issue 12, id.122002 <u>10.1103/PhysRevD.100.122002</u> (12/2019)

218) "Model comparison from LIGO–Virgo data on GW170817's binary components and consequences for the merger remnant" Abbott, B. P. and 1199 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 37, Issue 4, id.045006 (2/20)

219) "A guide to LIGO-Virgo detector noise and extraction of transient gravitational-wave signals" Abbott, B. P. and 1137 co-authors including L. Cominsky, Classical and Quantum Gravity, Volume 37, Issue 5, id.055002 (3/20)

220) "Fermi Large Area Telescope Fourth Source Catalog" Abdollahi, S. and 168 co-authors including L. Cominsky, The Astrophysical Journal Supplement Series, Volume 247, Issue 1, id.33 (3/20)

221) "GW190425: Observation of a Compact Binary Coalescence with Total Mass ~ $3.4 M_{\odot}$ " Abbott, B. P. and 1199 co-authors including L. Cominsky, The Astrophysical Journal Letters, Volume 892, Issue 1, id.L3 (3/20)

222) "Utilizing Small Telescopes Operated by Citizen Scientists for Transiting Exoplanet Follow-up" Zellem, R. and 43 co-authors including L. Cominsky, PASP, Volume 132, Issue 1011, id.054401 (5/20)

223) "Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA" Abbott, B. P. and 1321 co-authors including L. Cominsky, Living Reviews in Relativity, Volume 23, Issue 1, article id.3, (9/20)

224) "Gamma-Ray Universe" by Lynn Cominsky, Sky and Telescope, Vol. 140, No. 4, p.22, (10/20).

225) "A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo" Abbott, B. P. and 1182 co-authors including L. Cominsky, The Astrophysical Journal, Volume 909, Issue 2, id.218, 18 pp (3/21).

226) VizieR Online Data Catalog: Search for GW signals associated with GRBs Abbott, B. P. and 1190 co-authors including L. Cominsky, VizieR On-line Data Catalog: J/ApJ/886/75. Originally published in: 2019ApJ...886...75A (4/21)

227) "Using Scientific and Engineering Practices with Education Technology in the Science Classroom" Cominsky, L., Lewiston, C., Peticolas, L. and Hellman, H. (2023) https://stem.educationtechnologyinsights.com/cxoinsights/using-scientific-and-engineering-practices-with-education-technology-in-the-science-classroom-nid-2265.html

228) "Teaching for Tomorrow: Science Literacy in The Classroom" The Science Teacher (2024), Hellman, H., Peticolas, L., and Cominsky, L. (2024) in press.

Invited Talks or Colloquia to Scientific or General Audiences

1) Baltimore, Maryland (1981), *Recent Observations of X-Ray Burst Sources*, invited talk presented at the Symposium of the American Physical Society, Division of Cosmic Physics and American Astronomical Society High Energy Astrophysics Division on Cosmic Xray sources, April 21, 1981.

2) Berkeley, California (1981), *X-Ray Bursts and the Eddington Limit Problem*, Theoretical Astrophysics Seminar, University of California, Berkeley, October 20, 1981.

3) San Francisco, California (1981), *X-Ray Bursts and the Eddington Limit Problem*, Physics Colloquium, San Francisco State University, November 23, 1981.

4) Rohnert Park, California (1982), *X-Ray Bursts and the Eddington Limit*, invited lecture in the What Physicists Do public lecture series, Sonoma State University, March 8, 1982.

5) Sacramento, California (1982), *X-Ray Bursts and the Eddington Limit*, Physics and Astronomy Department Colloquium, California State University at Sacramento, March 1982.

6) San Francisco, California (1982), *X-Ray Astronomy*, invited lecture to the San Francisco Amateur Astronomers, California Academy of Sciences, August 18, 1982.

7) Rohnert Park, California (1983), *Galactic X-Ray Sources*, guest lecture in Astronomy 305 Sonoma State University, April 11, 1983.

8) Sacramento, California (1983), *X-Ray Astronomy*, invited lecture to the Sacramento Valley Astronomical Society, June 18, 1983.

9) Greenbelt, Maryland (1983), *Periodic Intensity Dips from the X-ray Burst Source MXB1659-29*, invited lecture at the NASA Goddard Space Flight Center Laboratory for High Energy Astrophysics, August 8, 1983.

10) Berkeley, California (1983), *Remote Observing with the U. C. Ten Meter Telescope*, invited lecture to the Astronomy Journal Club, University of California, Berkeley, September 9, 1983.

11) Berkeley, California (1983), *Eclipses and Physical Parameters of an X-ray Burst Source*, Astronomy Department Colloquium, University of California, Berkeley, September 29, 1983.

12) La Jolla, California (1983), *A Low Cost Approach to EUVE Mission Operations*, invited lecture at the California Space Institute Conference on "Low Cost Approaches to Space Exploitation", October 4, 1983.

13) Seattle, Washington (1983), *Eclipses and Physical Parameters of the X-ray Burster MXB1659-29*, Astronomy Department Colloquium, University of Washington, November 16, 1983.

14) Cambridge, Massachusetts (1984), *Discovery of Periodicity in the X-ray Burster MXB1659-29*, High Energy Astrophysics Division Colloquium, Harvard-Smithsonian Center for Astrophysics, February 8, 1984.

15) Davis, California (1984), *Eclipses and Physical Parameters of an X-ray Burst Source,* Physics Department Colloquium, University of California, Davis, May 1, 1984.

16) Davis, California (1985), *X-ray Burst Sources*, guest lecture in Astronomy class at University of California, Davis, May 13, 1985.

17) Rohnert Park, California (1986), *Extreme Ultra-Violet Astronomy*, invited lecture in the What Physicists Do public lecture series, Sonoma State University, February 10, 1986.

18) Rohnert Park, California (1986), *Black Holes and Quasars: X-ray Visions from the Edges of the Universe*, Sonoma State University Science Night, November 5, 1986.

19) Rohnert Park, California (1987), *Visions of the Universe from Space: X-ray Astronomy*, Association of North Bay Scientists Annual Meeting, Sonoma State University, May 2, 1987.

20) Rohnert Park, California (1987), *Basic Physics of Nuclear Bombs and Missiles*, invited lecture in the War and Peace public seminar series, Sonoma State University, September 29, 1987.

21) Santa Rosa, California (1987), *X-ray Astronomy*, invited lecture to the Sonoma County Astronomical Society, December 8, 1987.

22) Huntsville, Alabama (1988), *Observations and Calculations of X-ray and γ-ray Burst Reprocessing*, High Energy Astrophysics Colloquium, NASA Marshall Space Flight Center, January 15, 1988.

23) Noordwijk, Holland (1988), *The Eclipsing X-ray Burst Source MXB1659-29*, EXOSAT Colloquium, European Space Agency ESTEC, March 29, 1988.

24) Santa Rosa, California (1988), Arms Control and Disarmament, United Nations Day, Santa Rosa Junior College, May 7, 1988.

25) Rohnert Park, California (1988), *Basic Physics of Nuclear Bombs and Missiles*, invited lecture in the War and Peace public seminar series, Sonoma State University, September 27, 1988.

26) Fresno, California (1988), *X-ray Visions from the Edge of the Universe*, invited lecture for the California State University Fresno Open House, CSU Fresno, October 16, 1988.

27) Fresno, California (1988), Arms Control and Disarmament, Physics Department Colloquium, California State University Fresno, October 16, 1988.

28) Santa Rosa, California (1989), *SSU Radio Interferometer Telescope*, invited lecture to the Sonoma County Astronomical Society, December 13, 1989.

29) Foster City, California (1989), X-ray Visions of the Universe, invited lecture to the San Mateo County Astronomical Society, April 6, 1989.

30) Rohnert Park, California (1989), *Basic Physics of Bombs and Missiles*, invited lecture in the War and Peace public seminar series, October 3, 1989.

31) Oakland, California (1989), *X-ray Visions of the Universe*, invited lecture to the East Bay Astronomical Society, Chabot Observatory, December 2, 1989.

32) Moscow, Idaho (1990), *An Overview of X-ray Binary Systems*, Leonard Halland Guest Lecturer, Physics Department Colloquium, University of Idaho, January 25, 1990.

33) Mount Tamalpais, California (1990), *X-ray Visions of the Universe*, invited lecture to the Mount Tamalpais Astronomical Society public lecture series, June 23, 1990.

34) Rohnert Park, California (1990), *Nuclear Weapons Systems*, invited lecture in the War and Peace public seminar series, Sonoma State University, October 16, 1990.

35) Rohnert Park, California (1990), *Binary X-ray Pulsars*, invited lecture in the What Physicists Do public lecture series, Sonoma State University, October 29, 1990.

36) Rohnert Park, California (1991), *Nuclear Weapons Systems*, invited lecture in the War and Peace public seminar series, Sonoma State University, October 22, 1991.

37) San Francisco, California (1992), *X-ray Visions of the Universe*, invited lecture in the Exploring the Universe public seminar series, Morrison Planetarium, May 19, 1992.

38) Rohnert Park, California (1992), *Nuclear Weapons Systems*, invited lecture in the War and Peace public seminar series, Sonoma State University, October 6, 1992.

39) Huntsville, Alabama (1992), *What We Can Learn about High Energy X-ray Transients Using BATSE*, invited lecture at the Space Sciences Laboratory, NASA Marshall Space Flight Center, October 29, 1992.

40) Pasadena, California (1993), *What We Can Learn about High Energy X-ray Transients Using BATSE*, invited lecture at the California Institute of Technology, January 12, 1993.

41) Stanford, California (1993), *An X-ray Emitting Radio Pulsar in a Be-binary system*, Center for Space Sciences and Astrophysics Colloquium, Stanford University, November 11, 1993.

42) Berkeley, California (1993), *An X-ray Emitting Radio Pulsar in a Be-binary system*, invited lecture at the Center for Extreme Ultra-violet Astrophysics, University of California, Berkeley, November 12, 1993.

43) Stanford, California (1994), *X-ray Binary Pulsars*, Stanford Linear Accelerator Center Colloquium, Stanford University, February 7, 1994.

44) Snowmass, Colorado (1994), *Dynamic Measurements of Stellar Mass Black Hole Candidates*, invited lecture at the Snowmass Summer Institute on Particle Physics, Astrophysics and Cosmology, July 8, 1994.

45) Stanford, California (1994), *X-ray Emission from Be-binaries*, invited lecture at the 7th annual Marcel Grossman Conference on General Relativity, July 26, 1994.

46) San Francisco, California (1995), *Astrophysics at the Stanford Linear Accelerator Center*, invited lecture to the Physics and Astronomy department of San Francisco State University, February 10, 1995.

47) Rohnert Park, CA (1995), *Nuclear Weapons, Nuclear Power and the Environment*, invited lecture in the War and Peace public seminar Series, Sonoma State University, October 10, 1995.

48) Rohnert Park, CA (1996), X-ray and Gamma-ray Visions of the Universe, invited lecture to the

Sonoma County Superintendents of Schools, Sonoma State University, May 9, 1996.

49) Stanford, CA (1996), *The Gamma-ray Large Area Space Telescope*, invited lecture to the Stanford Linear Accelerator Center User's Organization Annual Meeting, Stanford University, June 6, 1996.

50) Rohnert Park, CA (1996), *Nuclear Weapons, Nuclear Power and the Environment*, invited lecture in the War and Peace public seminar Series, Sonoma State University, October 8, 1996.

51) Rohnert Park, CA (1997), GLAST: a Keener Eye for the Gamma-ray Sky, invited lecture in the

What Physicists Do public lecture series, Sonoma State University, September 22, 1997.

52) Santa Rosa, CA (1997), *Tapestry of Women's Lives*, invited presentation to the Sonoma County

Commission on the Status of Women and the League of Women Voters, November 20, 1997.

53) Berkeley, CA (1998), *GLAST: the Quest for the Ultimate Sources of Energy in the Universe*, invited lecture at the Lawrence Berkeley National Laboratory, March 6, 1998.

54) Stanford, CA (1998), *X-ray Emission from Compact Sources*, XXVI SLAC Summer Institute on Particle Physics, *Gravity: From the Hubble Length to the Planck Length*, two invited lectures on August 3 – 4, 1998.

55) Rohnert Park, CA (1998), *Using X-ray Emission from Compact Objects to Study Gravity*, two lectures in the What Physicists Do public lecture series, September 21 and 28, 1998.

56) Rohnert Park, CA (1998), *Weapons of Mass Destruction*, invited lecture in the War and Peace public seminar series, Sonoma State University, October 13, 1998.

57) Mt. Tamalpais, CA (1998), *The New Gamma-ray Astronomy*, invited lecture in the Mt. Tamalpais Astronomical Society public lecture series, October 17, 1998.

58) Santa Rosa, CA (1998), Women in Tapestry Project, invited lecture to Sonoma County Commission on the Status of Women, October 28, 1998.

59) San Francisco, CA (1999) *The New Gamma-ray Astronomy*, invited lecture at the San Francisco Amateur Astronomers, August 18, 1999.

60) Stanford, CA (1999), *Gamma-ray Visions of the Universe*, invited lecture to the Women's Interchange at SLAC, September 28, 1999.

61) Rohnert Park, CA (1999), *Nuclear, Biological and Chemical Weapons,* invited lecture in the War and Peace public seminar series, Sonoma State University, October 5, 1999.

62) Rohnert Park, CA (1999) *NASA Education and Public Outreach at Sonoma State University*, invited talk in the EPO session at Cosmic Genesis and Fundamental Physics Conference, October 28, 1999.

63) Sacramento, CA (1999), Using X-ray Emission from Compact Objects to Test General Relativity, invited lecture to the CSUS Physics Department, November 11, 1999

64) Greenbelt, MD (1999) NASA Education and Public Outreach at Sonoma State University, invited talk in the SEU Forum Town Meeting, December 14, 1999.

65) Rohnert Park, CA (2000) *Nuclear, Biological and Chemical Weapons,* invited lecture in the War and Peace public seminar series, Sonoma State University, October 3, 2000.

66) Eugene, OR (2001) *GLAST: Exploring the High Energy Universe where Particle Physics and Astrophysics Collide,* physics colloquium at the University of Oregon, February 22, 2001

67) Santa Rosa, CA (2001) Keynote address to Sonoma County Office of Education's Astronomy and Space Symposium, March 2, 2001.

68) Berkeley, CA (2001) *Gamma-ray Astronomy Missions and their use of a Global Telescope Network*, invited lecture at the Global Hands On Universe conference, July 27, 2001

69) Rohnert Park, CA (2001) *Nuclear, Biological and Chemical Weapons,* invited lecture in the War and Peace public seminar series, Sonoma State University, October 9, 2001.

70) Bowling Green, KY (2001) *GLAST: Exploring the High Energy Universe where Particle Physics and Astrophysics Collide*, physics colloquium at Western Kentucky University, November 9, 2001

71) Los Altos, CA (2001) *Exploding Stars, Blazing Galaxies and Giant Black Holes: the Extreme Universe of Gamma-ray Astronomy*, invited lecture in the Silicon Valley Astronomy Lecture Series, Foothill College, November 14, 2001

72) Coral Gables, FL (2001) *How X-ray Experiments See Black Holes: Past, Present and Future,* invited lecture at the 30th Coral Gables Conference on Cosmology and Particle Physics, December 14, 2001.

73) Santa Rosa, CA (2002) *Exploding Stars, Blazing Galaxies and Giant Black Holes: the Extreme Universe of Gamma-ray Astronomy,* invited lecture to the Sonoma County Astronomical Society, February 13, 2002

74) San Francisco, CA (2002) *Exploding Stars, Blazing Galaxies and Giant Black Holes: the Extreme Universe of Gamma-ray Astronomy,* invited lecture to the San Francisco Amateur Astronomers, August 21, 2002

75) Rohnert Park, CA (2003) *Physics of Nuclear Weapons,* invited lecture to the Northern California-Nevada section of the American Association of Physics Teachers, April 4, 2003

76) Rohnert Park, CA (2003) *Weapons of Mass Destruction,* invited lecture in the War and Peace public seminar series, Sonoma State University, September 30, 2003.

77) Rohnert Park, CA (2003) "The Extreme Universe of Gamma-ray Astronomy" public lecture at Sonoma State University, October 3, 2003.

77) Rohnert Park, CA (2003) "Things My Mother Never Told Me About the Universe" invited focus lecture in the What Physicists Do Series, October 6, 2003.

78) Long Beach, CA (2003) "Things My Mother Never Told Me About the Universe" invited focus lecture at the California Science Teacher's Association Meeting, October 11, 2003.

79) Gilbert, Arizona (2004) "Einstein's Universe and Beyond" invited lecture in the Mission and Technology Series, Spectrum Astro Inc., January 15, 2004.

80) San Francisco, CA (2005) "Exploding Stars, Blazing Galaxies and Monstrous Black Holes: The Extreme Universe of Gamma-ray Astronomy" Benjamin Dean Lecture for California Academy of Sciences, January 24, 2005

81) San Francisco, CA(2005) "A Swift View of the Universe" invited physics colloquium at University of San Francisco, February 23, 2005

82) Las Cruces, NM (2005) "A Swift View of the Universe" invited keynote address at the Third HEA/AAVSO Workshop, March 20, 2005

83) Holton, Kansas (2005) "Exploding Stars, Blazing Galaxies and Monstrous Black Holes: the Extreme Universe of Gamma-ray Astronomy" public lecture at Holton High School, Kansas, April 16, 2005.

84) San Francisco, CA (2005) "A Swift View of the Universe" invited physics colloquium at San Francisco State University, April 25, 2005.

85) San Francisco, CA (2005) "A Swift View of the Universe" invited talk to San Francisco Amateur Astronomers meeting at the Randall Museum, (June 15, 2005)

86) Santa Rosa, CA (2005) "Swift View of the Universe" invited talk to Santa Rosa Kiwanis Club, (July 5, 2005)

87) Santa Rosa, CA (2005) "Einstein's Universe and Beyond" Invited lecture at Santa Rosa Junior College Arts and Lecture Series, (October 10, 2005)

88) Rohnert Park, CA (2005) "Weapons of Mass Destruction"Invited lecture in the War and Peace seminar series, Sonoma State University, (October 18, 2005)

89) Rohnert Park, CA (2006) "A High-Energy Life" Invited lecture at Osher Lifelong Learning Institute course on Notable Women Scientists of the 20th Century and Beyond, (January 18, 2006)

90) Rohnert Park, CA (2006) "Einstein's Universe and Beyond" What Physicists Do lecture series (March 13. 2006)

91) Rohnert Park, CA (2006) "Weapons of Mass Destruction" Invited lecture in the War and Peace seminar series, Sonoma State University, (October 17, 2006)

92) Santa Cruz, CA (2006) "High-Energy Education and Public Outreach" at the Santa Cruz Institute for Particle Physics, UC Santa Cruz, (November 28, 2006)

93) San Francisco, CA (2006) "Bringing Real-time Astronomical Observations into the Classroom," invited lecture at the American Geophysical Union Conference, (December 11, 2006)

94) Napa, CA (2007) "A High-Energy Life," invited lecture to Zonta International (April 28, 2007)

95) Rohnert Park, CA (2007) "Weapons of Mass Destruction and Global Climate Change," invited lecture in "On Common Ground" lecture series, Sonoma State University, (May 10, 2007)

96) Sebastopol, CA (2007) "Black Holes: Up Close and Personal." invited lecture/demonstration at the Science Buzz Café, (July 19, 2007)

97) Chicago, IL (2007) "Making of Black Holes: The Other Side of Infinity" invited lecture at the Adler Planetarium during the Astronomical Society of the Pacific Education and Public Outreach conference, (September 7, 2007)

98) Rohnert Park, CA (2007) "Physics of Nuclear Weapons," Invited lecture in the War and Peace seminar series, Sonoma State University, (October 2, 2007)

99) Portland, Oregon (2007) "Einstein's Universe and Beyond" Invited lecture at Reed College, (October 3, 2007)

100) Santa Rosa, CA (2007) "Einstein's Universe and Beyond" Invited lecture to the Sonoma County Astronomical Society (December 12, 2007)

101) Mountain View, CA (2008) "Exploring the Extreme Universe with GLAST Fermi" Invited lecture to the SETI Institute (August 27, 2008)

102) Palo Alto, CA (2008) "Exploring the Extreme Universe with GLAST Fermi" Invited lecture to the Women's Interchange at SLAC (September 24, 2008)

103) Rohnert Park, CA (2008) "Weapons of Mass Destruction" Invited lecture in the War and Peace seminar series, Sonoma State University (October 7, 2008)

104) Santa Rosa, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture to the Santa Rosa Kiwanis Club (March 17, 2009)

105) San Francisco, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture in Astronomy Lecture Series: City College of San Francisco (March 18, 2009)

106) Rohnert Park, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture in What Physicists Do Colloquium Series: Sonoma State University (March 23, 2009)

107) Santa Rosa, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture to the Sons in Retirement (Oakmont) Club (April 22, 2009)

107) Mill Valley, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture in Mt. Tamalpais Lecture Series (June 27, 2009)

108) Sebastopol, CA (2009) "Exploring the Extreme Universe with Fermi" Invited lecture in "Women of Science & Culture" series (August 13, 2009)

109) Venice, Italy (2009) "Exploring the Extreme Universe with Fermi" Invited public lecture following the "Shocking Universe meeting" (September 19, 2009)

110) "Weapons of Mass Destruction" invited lecture in the War and Peace seminar series, Sonoma State University (October 9, 2009)

111) San Francisco, CA (2009) "Exploring the Extreme Universe with Fermi" Benjamin Dean lecture at the California Academy of Sciences (October 19, 2009)

112) Healdsburg, CA (2010) "Exploring the Extreme Universe with Fermi" invited lecture at Healdsburg High School (March 29, 2010)

113) San Quentin, CA (2010) "Seeing the Invisible" invited lecture to New Leaf program, San Quentin Prison (May 28, 2010).

114) Rohnert Park, CA (2010) "How do we know?" invited lecture to the Hutchins School, Sonoma State University (September 17, 2010)

115) Rohnert Park, CA (2010) "Weapons of Mass Destruction" invited lecture in the War and Peace seminar series, Sonoma State University (October 5, 2010)

116) San Francisco, CA (2010) "Exploring the Extreme Universe with Fermi" invited lecture at San Francisco Amateur Astronomers, Randall Museum (November 17, 2010)

117) Santa Rosa, CA (2010) "What do we know about the Universe?" invited lecture to the Oakmont Sunday Symposium Series, (December 12, 2010)

118) San Francisco, CA (2011) "Exploring the Extreme Universe with Fermi" invited lecture at University of San Francisco (February 9, 2011)

119) Santa Rosa, CA (2011) "Exploring the Extreme Universe with Fermi" invited lecture at Sonoma County Amateur Astronomers (April 13, 2011)

120) Petaluma, CA (2011) "Exploring the Extreme Universe with Fermi" invited lecture at Petaluma Historical Museum BEYOND exhibit (June 11, 2011)

121) Santa Rosa, CA (2011) "Things my mother never told me about the Universe" invited lecture to the No Name Women's group (June 15, 2011)

122) Rohnert Park, CA (2011) "What do we know about the Universe?" invited lecture to the Hutchins School, Sonoma State University (September 2, 2011)

123) Rohnert Park, CA (2011) "Weapons of Mass Destruction" invited lecture in the War and Peace seminar series, Sonoma State University (October 11, 2011)

124) Fresno, CA (2011) "Exploring the Extreme Universe with Fermi" invited lecture at CSU Fresno Physics Colloquium (December 2, 2011)

125) Santa Rosa, CA (2011) "Things My Mother never told me about the Universe" Benefit lecture for the Children's Museum of Sonoma County (December 8, 2011)

126) Stanford, CA (2012) Panel on Communicating Science to the Public, invited participation at Undergraduate Women in Physics conference (January 14, 2012)

127) Rohnert Park, CA (2012) "Weapons of Mass Destruction" invited lecture in the War and Peace seminar series, Sonoma State University (September 25, 2012)

128) Rohnert Park, CA (2012) "NASA Education and Public Outreach at SSU" invited lecture in the What Physicists Do series, Sonoma State University (October 8, 2012)

129) Santa Clara, CA (2013) "Small Satellites for Secondary Students" invited lecture at the West Coast National Association of Rocketry conference (Feb. 22, 2013) http://www.youtube.com/watch?v=eAfH1QC7VFQ

130) Terra Linda, CA (2013) "Exploring the Extreme Universe with Fermi" invited lecture as part of the Marin Science Seminar Series, (March 6, 2013)

131) Corte Madera (2013) "Exploring the Extreme Universe with Fermi" invited lecture as part of the "Read Marin" series (March 7, 2013)

132) Santa Rosa, CA (2013) "Extreme X-ray Astronomy with NuSTAR" invited lecture to the Sonoma County Astronomical Society (May 7, 2013)

133) Rohnert Park, CA (2013) "Leadership of Complex Organizations" invited talk to University 238 class, SSU, (March 11, 2013)

134) Online (2013) "High Energy Astronomy" invited webinar to the Night Sky Network (May 21, 2013)

135) Rohnert Park, CA (2013) "Weapons of Mass Destruction" invited lecture in the War and Peace seminar series, Sonoma State University (September 23, 2013)

136) Concord, CA (2013) "S4: Small Satellites for Secondary Students" Keynote talk at AAPT/NCN section at Carondelet High School, Concord, (November 16, 2013)

137) San Francisco, CA (2013) "NuSTAR's Sharp View of the Universe" invited talk to San Francisco Amateur Astronomers (December 18, 2013).

138) Washington, DC (2014) "Blazars and Gamma Rays" invited talk to Amateur astronomers at the Winter AAS meeting (Jan. 7, 2014)

139) Mountain View, CA (2014) "Rockets, Balloons and Satellites" invited talk at the California Space Grant Consortium meeting at NASA Ames Research Center (March 28, 2014)

140) Rohnert Park, CA (2014) "Learning by Making: Rockets, Satellites and More" invited talk at the Osher Lifelong Learning Institute Science Club (April 15, 2014)

141) Sebastopol, CA (2014) "Learning by Making: Rockets, Satellites and More" invited talk at the Science Buzz Cafe (April 17, 2014)

142) Santa Rosa, CA (2014) "Blazing Galaxies, Exploding Stars and Monstrous Black Holes: High Energy Visions of the Universe" invited talk at the Oakmont Symposium (May 8, 2014) http://www.oaksunsym.org/2014/140508_cominsky/cominsky.html

143) Internet lecture "Learning by Making: Rockets, Satellites and More" invited talk at the AAPT-AOK meeting, Arkansas (September 26, 2014)

144) Mt. Tamalpais, CA (2014) "NuSTAR's Sharper View of the Universe" invited lecture in the Mt. Tamalpais Astronomy program series (September 27, 2014)

145) Rohnert Park, CA (2014) "Science of War (and Peace)" invited lecture in the War and Peace seminar series, Sonoma State University (September 30, 2014)

146) Terra Linda, CA (2014) "NuSTAR's Sharper View of the Universe" invited lecture in the Marin Science Seminar series (November 12, 2014)

147) Greenbelt, MD (2015) "Learning by Making: Rockets, Satellites and More" invited talk at NASA Goddard Space Flight Center (February 18, 2015)

148) Santa Rosa, CA (2015) "Next Generation Science Standards and Learning by Making" invited talk at "No-Name" Women's group (March 12, 2015)

149) Rohnert Park, CA (2015) "Science of War (and Peace)" invited lecture in the War and Peace seminar series, Sonoma State University (September 29, 2015)

150) Rohnert Park, CA (2015) "High Energy Life" invited lecture in the Outstanding Women in Science course for Osher Lifelong Learning Institute (October 6, 2015)

151) San Francisco, CA (2015) "High Energy Visions of the Universe" invited physics colloquium at University of San Francisco (October 8, 2015)

152) Santa Rosa, CA (2015) "High Energy Visions of the Universe" invited talk at Evening Rotary Club of Santa Rosa (October 13, 2015)

153) New Orleans, LA (2016) "Big Ideas and Big Science in the Classroom" invited talk at AAPT (January 12, 2016).

154) Sacramento, CA (2016) "Gravitational Waves from Merging Black Holes" invited talk at CSU Sacramento (February 25, 2016).

155) Rohnert Park, CA (2016) "Gravitational Waves from Merging Black Holes" invited talk at What Physicists Do (March 21, 2016). https://www.youtube.com/watch?v=5TpKXeTYBMg&t=1472s

156) Santa Rosa, CA (2016) "High Energy Life" invited lecture at the Star Seekers STEAM awards presentation at the Sixth Street Playhouse, Santa Rosa, CA (April 1, 2016)

157) Santa Rosa, CA (2016) "Art and Science of the Environment" invited panel discussion at the Sonoma County History Museum, Santa Rosa, CA (April 19, 2016)

158) Hayward, CA (2016) "Gravitational Waves from Merging Black Holes" invited talk at CSU East Bay (April 22, 2016).

159) Ukiah, CA (2016) "Extreme Visions of the Universe" invited talk at the Ukiah Civic Center, (May 6, 2016) – advertised in the Ukiah Daily Journal http://www.ukiahdailyjournal.com/lifestyle/20160503/sonoma-state-astronomers-bring-science-to-ukiah

160) Newport, RI (2016) "Exploring Gravitational Waves in the Classroom" invited talk at the Gordon Research and Education Conference (June 6, 2016)

161) Santa Rosa, CA "Learning by Making", invited talk at reMake Education conference (August 4, 2016)

161) Santa Rosa, CA – "Spacetime Symphony: Gravitational Waves from Merging Black Holes," invited talk to Sonoma County Amateur Astronomers (September 14, 2016)

162) San Francisco, CA – "Spacetime Symphony: Gravitational Waves from Merging Black Holes,"invited talk to San Francisco Amateur Astronomers (September 20, 2016) <u>https://slideslive.com/38898414/spacetime-symphony-gravitational-waves-from-merging-black-holes</u>

163) Rohnert Park, CA (2016) "Science of War (and Peace)" invited lecture in the War and Peace seminar series, Sonoma State University (September 27, 2016)

164) Los Altos Hills, CA (2016) "Spacetime Symphony: Gravitational Waves from Merging Black Holes" Invited lecture in the Silicon Valley Lecture Series (November 2, 2016) <u>https://www.youtube.com/watch?v=mbiCbBXVD-</u> U&list=PLeZsNwyz9KyG5zY2GTzrBGgul55f cNnL

165) "Spacetime Symphony: APOD and Gravitational Waves" Cominsky, Lynn R., Simonnet, Aurore and the LIGO-Virgo Scientific Collaboration, American Astronomical Society, Invited lecture in special APOD session, AAS Meeting #229, id.421.04, <u>2017AAS...22942104C</u> (1/2017)

166) Oakland, CA (2017) " Gravitational Waves from Merging Binaries: Invited talk at the East Bay Astronomical Society, Chabot Space Center, (February 11, 2017)

167) Boston, MA (2017) "Exploring Gravitational Waves in the Classroom" Invited talk at the AAAS meeting in the "Communicating the Wonder and Excitement of LIGO" session (February 19, 2017) <u>https://aaas.confex.com/aaas/2017/meetingapp.cgi/Paper/18866</u>

168) Santa Barbara (2017) "Exploring Gravitational Waves in the Classroom" Invited talk at the Kavli Institute for Theoretical Physics (March 25, 2017)

169) Santa Rosa, CA "Learning by Making", invited talk at reMake Education conference (August 3, 2017)

170) Adelaide, Australia, "Building the STEM Pipeline with Rockets, UAVs and CubeSats" Frank J. Malina Education prize lecture at the International Astronautical Congress (September 14, 2017)

171) Rohnert Park, CA (2017) "Nuclear Weapons and North Korea" invited lecture in the War and Peace seminar series, Sonoma State University (September 19, 2017)

172) Cotati, CA (2017) "Gravitational Waves from Merging Binaries" invited lecture at the sitting room, (November 11, 2017)

173) Chico, CA (2018) "Gravitational Waves from Merging Binaries" invited lecture at Chico State University (Feb 23, 2018)

174) Ukiah, CA (2018) "Gravitational Waves from Merging Binaries" invited lectures to four classes at Ukiah High School State (March 1, 2018)

175) Rohnert Park, CA (2018) "Gravitational Waves from Merging Binaries" invited lecture at Sonoma State (March 26, 2018)

176) Arcata, CA (2018) "Gravitational Waves from Merging Binaries" invited lecture at Humboldt State University (April 19, 2018)

177) Walnut Creek, CA (2018) "Gravitational Waves from Merging Binaries" invited lecture at Mt. Diablo Astronomical Society (April 24, 2018)

178) Taipei, Taiwan, "Learning by Making, Rockets, Satellites and More", invited public lecture at the Academia Sinica Institute for Astronomy and Astrophysics (May 15, 2018).

179) Kinmen, Taiwan, "High Energy Views of the Universe", invited education keynote lecture at the annual meeting of the Astronomical Society of the Republic Of China (May 20, 2018)

180) Santa Rosa, CA "Learning by Making", invited talk at reMake Education conference (August 2, 2018)

181) Pacific Grove, CA "Spacetime Symphony: Gravitational Waves from Merging Compact Binaries" invited talk at Phi Beta Kappa Northern California meeting (Feb. 16, 2019)

182) Washington, DC "How Working on Uhuru Changed My Life" invited talk at the Riccardo Giacconi Memorial Symposium in DC, May 30, 2019

183) Greenbelt, MD "XMM-Newton Education and Public Outreach" invited talk at the 20th anniversary celebration of the launch of XMM-Newton (October 21, 2019)

184) Rohnert Park, CA "An Introduction to the Science of Nuclear Weapons" keynote lecture at the Northern California MENSA annual meeting (November 23, 2019)

185) Online: "Spacetime Symphony: Gravitational Waves from Merging Compact Binaries" invited and recorded talk for the National Science Olympiad https://chandra.harvard.edu/edu/olympiad.html (August 2020)

186) Online: "How Working on Uhuru Changed My Life" invited talk at the Uhuru 50th Anniversary Symposium (December 11, 2020)

187) Online: "Spacetime Symphony: Gravitational Waves from Merging Compact Binaries" for the Robert Ferguson Observatory/Valley of the Moon Observing Association (July 9, 2021)

188) Jamestown, NY "Spacetime Symphony: Gravitational Waves from Merging Compact Binaries" for the Martz/Kohl Observatory (October 16, 2021)

189) Online: Gravitational Waves: The Discovery that won the 2017 Nobel Prize, for the University of San Francisco (February 16, 2022)

190) Online: Gravitational Waves: The Discovery that won the 2017 Nobel Prize, for the Mt. Tam Astronomical Society via zoom on June 4, 2022.

191) Online: Video presentation in session: Innovations in Rural Education: EIR Grants at Work in a Community Near You, Cominsky, L., Peticolas, L. and Rohde, C., National Rural Educators Association, October 2022 <u>https://youtu.be/KPCjhTXKN78</u>

192) Online: Panelist in STEM for All Multiplex Webinar "Embracing Neurodiversity in STEM" January 24, 2023 archived at: <u>https://multiplex.videohall.com/month_themes/24</u>

193) Online: Presenter in Stanford University's Neurodiversity Network for Education and Advocacy Seminar series, February 9, 2023, archived at: <u>https://youtu.be/6_R7cZy3gfs</u>

194) Online: "Gravitational Waves: The Discovery that won the 2017 Nobel Prize", for the University of Michigan Osher Lifelong Learning Institute via zoom on April 6, 2023.

195) Online: Presenter to Astronomers without Borders "Learning about Neurodiversity and NASA's Neurodiversity Network, April 19, 2023, archived at: <u>https://youtu.be/tvk_3gG0nXk</u>

196) Online: Presenter to the Wisconsin Multi-messenger Diversity Network "Neurodiversity in the Workplace" April 21, 2023, archived at: https://drive.google.com/file/d/1Ag--EX8iUCYJbMQy084VoB7i0A_UcFPf/view

197) Online: Presenter to Peer One-to-one Network, "NASA's Neurodiversity Network" July 17, 2023

198) Online: "Science of War and Peace" for the University of Michigan Osher Lifelong Learning Institute via zoom on November 30, 2023. https://drive.google.com/file/d/1y2AVj9wD3JBlpRfl-0Ro9tYGixJhEuAE/view?usp=drive_link

Conference Presentations

1) "Transient X-ray Sources in the Galactic Plane", L. Cominsky, C. Jones, and W. Forman, *Bulletin of the American Astronomical Society*, **9**, 318, 1977.

2) "SAS-3 Observations of 4U0115+63", S. Rappaport, G. W. Clark, L. Cominsky, P. Joss, and F. Li, *Bulletin of the American Astronomical Society*, **10**, 434, 1978.

3) "Recent Observational Results on X-Ray Burst Sources", H. Marshall, L. Cominsky, J. van Paradijs, J. Hoffman, G. Jernigan, W. Wheaton, and W. H. G. Lewin, *Bulletin of the American Astronomical Society*, **10**, 420, 1978.

4) "Search for Eclipses and Periodicities in the 'Steady' Emission from X-ray Sources", L. Cominsky, H. Marshall, F. Li, J. van Paradijs, and W. H. G. Lewin, *Bulletin of the American Astronomical Society*, **10**, 516, 1978.

5) "Search for Spectral Changes in the 'Steady' Emission of X-ray Burst Sources", J. van Paradijs, L. Cominsky, and W. H. G. Lewin, *Bulletin of the American Astronomical Society*, **10**, 515, 1978.

6) "SAS-3 Observations of the Transient X-ray Burst Source MXB1659-29", W. H. G. Lewin, J. van Paradijs, L. Cominsky, and W. Ossmann, *Bulletin of the American Astronomical Society*, **10**, 515, 1978.

7) "Discovery of Optical Bursts from an X-ray Burst Source, MXB1735-44", J. McClintock, J. Grindlay, C. Canizares, J. van Paradijs, L. Cominsky, F. Li, and W. H. G. Lewin, *Bulletin of the American Astronomical Society*, **10**, 514, 1978.

8) "Optical/X-ray Bursts from MXB1636-53", L. Cominsky, W. H. G. Lewin, J. G. Jernigan, J. Doty, H. Pedersen, M. Oda and the Hakucho Team, and J. van Paradijs, *Bulletin of the American Astronomical Society*, **11**, 720, 1980.

9) "Extremely Similar Multiple Peaked Burst Structure from Three X-ray Burst Sources", J. Hoffman and L. Cominsky, *Bulletin of the American Astronomical Society*, **11**, 719, 1980.

10) "Very Long Type II Bursts from the Rapid Burster", E. Basinska, W. Lewin, L. Cominsky, J. van Paradijs, and F. Marshall, *Bulletin of the American Astronomical Society*, **11**, 720, 1980.

11) "The 1980 Optical Outburst of 4U0115+63", L. Cominsky, G. Kriss, S. Rappaport, R. Remillard, G. Williams, and J. Thorstensen, *Bulletin of the American Astronomical Society*, **13**, 900, 1982.

12) "Optical Radiation Associated with Cosmic γ-ray Bursts", R. A. London and L. R. Cominsky, *Bulletin of the American Astronomical Society*, **14**, 867, 1982.

13) "Simultaneous Optical and X-ray Burst Observations from 4U/MXB1636-53", H. Inoue et al., *Bulletin of the American Astronomical Society*, **14**, 891, 1982.

14) "Calculations of Time-dependent X-ray and γ -ray Reprocessing", L. Cominsky, R. I. Klein, and R. A. London, *Bulletin of the American Astronomical Society*, **16**, 468, 1984.

15) "Science Operations and Data Analysis for the Extreme Ultra-Violet Explorer" L. R. Cominsky, H. L. Marshall and C. A. Dobson, *Bulletin of the American Astronomical Society*, **17**, 900, 1986.

16) "Further Observations of MXB 1659-29", L. R. Cominsky and K. S. Wood, *Bulletin of the American Astronomical Society*, **18**, 919, 1987.

17) Taos, New Mexico (1987), "Applications of the Reprocessing Code to X-ray and Optical Bursts", presented at the Conference on Multi-wavelength Astrophysics, sponsored by the Los Alamos National Laboratory, August, 1987.

18) "Virtual Microprocessor Applications", presented at the Northern California Section meeting of the American Association of Physics Teachers, October 29, 1988.

19) "Multi-mission Observations of 4U1538-52", L. Cominsky, *Bulletin of the American Astronomical Society*, **20**, 1044, 1989.

20) "The Sonoma State University Very Small Array", G. Sprehn and L. Cominsky, *Bulletin of the American Astronomical Society*, **23**, 1451, 1991.

21) "Motorization and Computer Control of the Sonoma State University Very Small Array", G. Sprehn, B. Owen and L. Cominsky, *Bulletin of the American Astronomical Society*, **25**, 810, 1993.

22) "An April 1991 Outburst from 4U0115+63 Observed by BATSE", M. Roberts, L. Cominsky, and M. Finger, *Bulletin of the American Astronomical Society*, **25**, 911, 1993.

23) "Detection of X-rays from the Be-star/Radio Pulsar PSR 1259-63", L. Cominsky, M. Roberts and S. Johnston, *Bulletin of the American Astronomical Society*, **25**, 912, 1993.

24) "Observations of Neutron Stars with EUVE", H. Marshall, and L. Cominsky, *Bulletin of the American Astronomical Society*, **25**, 918, 1993.

25) "The Orbital Period of EXO0748-676: Secular Change or Stochastic Jitter?", P. Hertz, K. Wood and L. R. Cominsky, *Bulletin of the American Astronomical Society*, **25**, 1380, 1993.

26) "Yes, There Are Jobs in Astronomy", J. S. Tenn, L. R. Cominsky and G. G. Spear, *American Assocation of Physics Teachers Announcer*, **23**, 50, 1993.

27) "The Very Small Array Sky Survey", M. Roberts, N. Owen, G. Spear and L. Cominsky, *Bulletin of the American Astronomical Society*, **26**, 859, 1994.

28) "HEAO A-1 Archival Observations of Galactic X-ray Binaries", L. Cominsky, M. Roberts, A. Lee and D. Segel, *Bulletin of the American Astronomical Society*, **26**, 872, 1994.

29) "The 1994 Large Outburst from 4U0115+63 Observed with BATSE", L. Cominsky, M. Roberts and M. Finger, *Bulletin of the American Astronomical Society*, **27**, 1434, 1995.

30) "Detection of an Apparent Orbital Period Change in the Low Mass X-ray Binary EXO 0748-676", P. Hertz, K. Wood and L. Cominsky, *Bulletin of the American Astronomical Society*, **28**, 1328, 1996.

31) "ASCA Observations of 4U 1907+09", M. Roberts, P. Michelson and L. Cominsky, *Bulletin of the American Astronomical Society*, **29**, 731, 1997.

32) "ASCA observations of the radio pulsar/be star binary system PSR B1259-63", V. M. Kaspi, M. M. Hirayama, F. Nagase, L. Cominsky and M. Tavani, *Advances in Space Research*, Volume **21**, 223, 1998.

33) "Initial Results from the USA Experiment on ARGOS", K. S. Wood, G. Fritz, P. L. Hertz, W. N. Johnson, M. N. Lovellette, P. S. Ray, M. T. Wolff, R. Bandyopadhyay, E. D. Bloom, C. Chaput, G. Godfrey, P. Saz Parkinson, G. Shabad, P. Michelson, M. Roberts, D. A. Leahy, L. Cominsky, J. Scargle, J. Beall, D. Chakrabarty, and Y. Kim, *Bulletin of the American Astronomical Society*, **31**, 740 and 1001, 1999.

34) "Early Science Results from the USA Experiment", P. Hertz, K. S. Wood, G. Fritz, M. Kowalski, W. N. Johnson, M. N. Lovellette, P. S. Ray, M.T. Wolff, D. Yentis, R. M. Bandyopadhyay, E. D. Bloom, B. Giebels, G. Godfrey, K. Reilly, P. Saz Parkinson, G. Shabad, P. Michelson, M. Roberts, D.A. Leahy (Calgary), L. Cominsky, J. Scargle, J. Beall, and D. Chakrabarty, Y. Kim, *Bulletin of the American Astronomical Society*, **32**, 1425, 1999.

35) "The Swift MIDEX Education and Public Outreach Program", E. D. Feigelson, L. R. Cominsky and L. A. Whitlock, *Bulletin of the American Astronomical Society*, **32**, 1526, 1999.

36) "The Teacher Ambassador Program for NASA's GLAST Mission", Lynn R. Cominsky & Laura A. Whitlock, *AAPT Announcer*, **30**, 89, 2000

37) "Space Mysteries for Science Education", Lynn R. Cominsky, Laura A. Whitlock, Tim Graves and Sarah Silva, *AAPT Announcer*, **30**, 89, 2000

38) "High-energy Bursts of Math and Science," Laura A. Whitlock, Eric Feigelson, Lisa Brown and Lynn Cominsky, *AAPT Announcer*, **30**, 89, 2000

39) "Space Mysteries: Making Science and Astronomy Learning Fun," P. Plait, T. Graves and L. Cominsky, *Eos Trans. AGU, 82*(47), Fall Meet. Suppl., Abstract ED32A-02, 2001

40) "The GLAST Telescope Network," John Mattox, Gordon Spear and Lynn Cominsky, *Bulletin of the American Astronomical Society*, **33**, 1222, 2001

41) "Space Mysteries: Innovative Web-based Games for Teaching Math and Science," Lynn Cominsky and Philip Plait, presented at the National Science Teacher's Association Meeting, March 29, 2002.

42) "GLAST Educator Ambassadors" Lynn Cominsky and Philip Plait, presented at the NASA Office of Space Science Education Conference, June 11-14, 2002

43) "Space Mysteries: Innovative Web-based Games for Teaching Math and Science," Lynn Cominsky, presented at the California Science Teacher's Association Meeting, October, 2002.

44) "GEMS Invisible Universe from Radio Waves to Gamma Rays," L. Cominsky, S. Silva and T. Graves, presented at the AAPT-NCN meeting, November 2, 2002

45) "The GTN-AAVSO Blazar Program," G. Spear, J. Mattei, A. Price, T. Graves, T. Borders, G. Slater, and L. Cominsky, *Bulletin of the American Astronomical Society*, 2002AAS...201.5309S

46) "NASA GLAST EPO," L. Cominsky and S. Silva, presented at the AAPT-NCN meeting, April 5, 2002

47) "Far Out Math," L. Cominsky and M. Ford, presented at the National Council for Teachers of Mathematics, April 12, 2003

48) "NASA's Swift Education and Public Outreach Program," P. Plait, S. Silva, T. Graves, A. Simonnet, and L. Cominsky, *Bulletin of the American Astronomical Society*, 2003AAS...202.1017P

49) "GEMS: Invisible Universe from Radio Waves to Gamma-rays" workshop at the California Science Teacher's Association Meeting, October 11, 2003 (with Sarah Silva.)

50) "Sorting Out the Cosmic Zoo" workshop at the California Science Teacher's Association Meeting, October 11, 2003 (with Phil Plait.)

51) "The Utilization of the RCT Telescope for Studies of Blazar Continuum Emission during the GLAST Gamma-Ray Mission," J. R. Mattox, L. Cominsky, G. Spear, M. Carini, R. Gelderman, C.H. McGruder, E. Guinan, S. Howell, D. R. Davis, M. Everett, and D. K. Walter, *Bulletin of the American Astronomical Society*, 2003AAS...202.4305M

52) "XMM-Newton Education and Public Outreach Program," P. Plait, S. Silva, T. Graves, A. Simonnet, G. Spear, G. Slater, T. Borders, and L. Cominsky, *Bulletin of the American Astronomical Society*, 2003AAS...20311812P

53) "Observing Blazar Variability: The GTN-AAVSO Collaboration," G. Spear, A. Price, P. Plait, T. Graves, L. Cominsky, J. Mattei, *Bulletin of the American Astronomical Society*, 2004AAS...204.3513S

54) "Swift and the GTN" at the Swift team meeting, held in New Orleans in conjunction with the HEAD meeting,

55) "NASA's Swift Education and Public Outreach Program" Lynn Cominsky, Phil Plait, Tim Graves, Sarah Silva, and Aurore Simonnet. *Bulletin of the American Astronomical Society*, 2004HEAD....8.2703C

56) "The SEU Educator Ambassador Program." S. Silva, L. Cominsky, P. Plait, J. Lochner, and N. Leon, *Bulletin of the American Astronomical Society*, 2004HEAD....8.2707S

57) "The GTN-AAVSO Blazar Program" L. R. Cominsky, G. G. Spear, T. Graves, G. Slater and A. Price, *Bulletin of the American Astronomical Society*, 2004HEAD8.2702C

58) "XMM-Newton Education and Public Outreach Program" P. Plait, S. Silva, T. Graves, A. Simonnet and L. Cominsky, *Bulletin of the American Astronomical Society*, 2004HEAD8.2701P

59) "DUO: the Dark Universe Observatory" R. Griffiths and 35 co-authors including L. Cominsky, Proceedings of the SPIE, Volume 5488, pp. 209-221 (2004).

60) "The GLAST Education and Public Outreach Program" P. Plait, T. Graves, S. Silva, A. Simonnet, G. Spear and L. Cominsky, *Bulletin of the American Astronomical Society*, 2004AAS...205.9606P

61) "A Comparison of several commonly available software systems for aperture photometry with applications to photometry of blazers" T. Graves, G. Spear, K. McLin, P. Plait, L. Cominsky, GLAST Education and Public Outreach Team, *Bulletin of the American Astronomical Society*, 2005AAS...207.2904G

62) "GRB 050904: the oldest cosmic explosion ever observed in the Universe" G. Cusamano and 32 authors including L. Cominsky in Gamma-Ray Bursts in the Swift Era, Sixteenth Maryland Astrophysics Conference, held 29 November - 2 December, 2005 in Washington, DC. Edited by S.S. Holt, N. Gehrels, and J.A. Nousek. AIP Conference Proceedings, Vol. 836. Melville, NY: American Institute of Physics, 2006., p.564-569

63) "Dying Stars And The Birth Of The Elements: A Laboratory Exercise From Project Clea And XMM-Newton" L. Marschall, G. Snyder, P. Cooper, P. Plait, L. Cominsky, T. Graves and S. Silva, *Bulletin of the American Astronomical Society*, 2006AAS...208.1701M

64) "The SNAP Education and Public Outreach Program" L. Cominsky, P. Plait, S. Silva on behalf of the SNAP Collaboration, *Bulletin of the American Astronomical Society*, 2006AAS...209.9406C

65) "The eXtreme Universe: A Portable Planetarium Program", P. Plait, S. Silva, T. Graves, J. Reed and L. Cominsky, *Bulletin of the American Astronomical Society*, 2006AAS...209.9604P

66) "Beyond the Event Horizon: Education with Black Holes," S. Silva, P. Plait and L. Cominsky, *Bulletin of the American Astronomical Society*, 2006AAS...20915314S

67) "Teaching In-Service and Pre-Service Teachers Modern Cosmology, Part I: A Concept Inventory", Kevin M. McLin, & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2007AAS...211.3106M

68) "High School Observations of AGN Using the GTN," Kevin M. McLin, R. Jordon, A. Perkins, J. Adkins & L. Cominsky, *Bulletin of the American Astronomical Society*, 2008HEAD...10.2631M

69) "The Global Telescope Network," K. McLin, G. Spear & L. Cominsky, in *EPO and a Changing World: Creating Linkages and Expanding Partnerships ASP Conference Series, Vol. 389,* proceedings of the conference held 5-7 September 2007, in Chicago, Illinois, USA. Edited by Catharine Garmany, Michael G. Gibbs, and J. Ward Moody. San Francisco: Astronomical Society of the Pacific, 2080., p.89, 2008ASPC..389...89M

70) "A Proposed Student Built and Operated Satellite: The Gamma Ray Burst Polarization Observer (PolOSat)," B. Malphrus et al. including L. Cominsky and 12 other co-authors, *Bulletin of the American Astronomical Society*, 2009AAS...21347603M

71) "Epo's Chronicles: A Weekly Webcomic That Teaches Space Science," L. Cominsky, K. Prasad, A. Simonnet, K. John, K. McLin & L. Hill, *Bulletin of the American Astronomical Society*, 2009AAS...21346407C

72) "Transforming Introductory Astronomy in the Urban University," Kimberly A. Coble, M. Sabella, D. Larrieu, J. McDowell, R. Orlanzino, L. Cominsky & K. McLin, *Bulletin of the American Astronomical Society*, 2009AAS...21346206C

73) "Undergraduate Research Experiences with the Global Telescope Network," K. McLin, K. Wyman, N. Broughton, K. Coble, & L.R. Cominsky, *Bulletin of the American Astronomical Society*, 2009AAS...21346102M

74) "Photometry Of The Semi-regular Variable Tx Tau" Katherine Wyman, G. Spear, K. McLin, L. Cominsky, L. Mankiewicz, D. Reichart & K. Ivarsen, *Bulletin of the American Astronomical Society*, 2009AAS...21360205W

75) "Probing Student Understanding of Cosmology," Kimberly A. Coble, G. Cochran, D. Larrieu, J. Bailey, R. Sanchez, L. Cominsky, & K. McLin, *Bulletin of the American Astronomical Society*, 2010AAS...21546614C

76) "The NuSTAR Education and Public Outreach Program" L. Cominsky, K. McLin and the NuSTAR team, *Bulletin of the American Astronomical Society*, 2010AAS...21546506C

77) "The NuSTAR Education and Public Outreach Program" L. Cominsky, K. McLin and the NuSTAR team, *Bulletin of the American Astronomical Society*, 2010AAS...HEAD

78) "Using the Big Ideas in Cosmology to Teach College Students" K. Coble, J. Bailey, G. Cochran, V. Hayes, D. Larrieu, R. Sanchez, K. McLin and L. Cominsky, *Bulletin of the American Astronomical Society*, 2010AAS...21641605C.

79) "The Nuclear Spectroscopic Telescope Array (NuSTAR)" Fiona Harrison, and 33 authors including L. Cominsky, Space Telescopes and Instrumentation 2010: Ultraviolet to Gamma Ray. Edited by Arnaud, Monique; Murray, Stephen S.; Takahashi, Tadayuki. Proceedings of the SPIE, Volume 7732, pp. 77320S-77320S-8 (2010).

80) "Using Telescopic Observations to Explore the Science of AGN with High School Students" K. M. McLin & L.R. Cominsky, American Geophysical Union Fall Meeting, 2010AGUFMED53A0528M.

81) "Investigating Student Understanding of the Universe: Perceptions of Astronomical Sizes and Distances" C. Camarillo, K. Coble, V. Hayes, M. Nickerson, G.L. Cochran, J. M. Bailey, K. M. McLin & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2011AAS...21833305C.

82) "Investigating Student Understanding of the Universe: Structure" V. Hayes, K. Coble, M. Nickerson, G. Cochran, C.T. Camarillo, J. M. Bailey, K. M. McLin, & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2011AAS...21833304H.

83) "Investigating Student Understanding of the Universe: Age and Expansion" K. Coble, G. Cochran, V. Hayes, M. Nickerson, C. Camarillo, J. M. Bailey, K. M. McLin & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2011AAS...21833303C.

84) "Investigating Student Understanding of the Universe: Dark Matter" M. Nickerson, K. Coble, G. Cochran, V. Hayes, C. Camarillo, J. M. Bailey, K. M. McLin, & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2011AAS...21833302N.

85) "Dark Energy is "Dying" and Other Student Ideas About Cosmology" J. M. Bailey, K. Coble, G. Cochran, R. Sanchez, D. Larrieu, V. L. Hayes, M. Nickerson, L. R. Cominsky, L. R. & K. M. McLin, *Bulletin of the American Astronomical Society*, 2011AAS...21833301B.

86) "The Big Ideas in Cosmology: a Curriculum for College Students" K. Coble, K. M. McLin, A. Metevier, J. M. Bailey, & L. R. Cominsky, *Bulletin of the American Astronomical Society*, 2011AAS...21821507C.

87) "Using the Big Ideas in Cosmology to Teach College Students" L. R. Cominsky, K. M. McLin, K. Coble, J. M. Bailey, & A. J. Metevier, *Bulletin of the American Physical Society*, BAPS.2011.APR.R12.4.

88) "Dark energy is "dying," and other student ideas about cosmology" Bailey, J. M.,
Coble, K., Cochran, G., Sanchez, R., Larrieu, D., Hayes, V. L., Nickerson, V., McLin, K.
M., & Cominsky, L. R., Invited talk at the 2011 Winter Meeting of the American
Association of Physics Teachers, Jacksonville, FL, 10 January 2011.

89) "The big ideas in cosmology: a curriculum for college students" Coble, K., McLin, K. M., Metevier, A. J., Bailey, J. M., & Cominsky, L. R. Invited talk at the 2011 Winter Meeting of the American Association of Physics Teachers, Jacksonville, FL, 10 January 2011.

90) "Investigating student understanding of the universe: Age and expansion" Cochran, G. L., Coble, K., Hayes, V. L., Nickerson, M., Bailey, J. M., McLin, K. M., & Cominsky, L. R. Poster at the 2011 Winter Meeting of the American Association of Physics Teachers, Jacksonville, FL, 10 January 2011.

91) "Investigating student understanding of the universe: Structure" Hayes, V. L., Coble, K., Nickerson, M., Cochran, G. L., Bailey, J. M., McLin, K. M., & Cominsky, L. R., Poster at the 2011 Winter Meeting of the American Association of Physics Teachers, Jacksonville, FL, 10 January 2011.

92) "Investigating student understanding of the universe: Dark Matter," Nickerson, M., Coble, K., Cochran, G. L., Hayes, V. L., Bailey, J. M., McLin, K. M., & Cominsky, L. R., Poster at the 2011 Winter Meeting of the American Association of Physics Teachers, Jacksonville, FL, 10 January 2011.

93) "Investigating student understanding of cosmology," Coble, K., Bailey, J. M., Cochran, G. L., Hayes, V. L., Nickerson, M. D., Larrieu, D., Sanchez, R., Metevier, A. J., McLin, K. M., & Cominsky, L. R., Poster at the 4th IUPAP International Conference on Women in Physics, Stellenbosch, Western Cape, South Africa, 4-8 April 2011

94) "Investigating student understanding of the universe: Age and expansion" Cochran, G. L., Coble, K., Hayes, V. L., Nickerson, M., Bailey, J. M., McLin, K. M., & Cominsky, L. R., Poster at the American Association of Physics Teachers Chicago Section Spring Meeting, Niles West High School, Skokie, IL 60077, 9 April 2011

95) "Investigating student understanding of the universe: Structure," Hayes, V. L., Coble, K., Nickerson, M. D., Cochran, G. L., Camarillo, C. T., Bailey, J. M., McLin, K.M., & Cominsky, L. R., Poster at the American Association of Physics Teachers Chicago Section Spring Meeting, Niles West High School, Skokie, IL 60077, 9 April 2011

96) "Investigating student understanding of the universe: Dark Matter" Nickerson, M. D., Coble, K., Cochran, G. L., Hayes, V. L., Camarillo, C. T., Bailey, J. M., McLin, K.M., & Cominsky, L. R., Poster at the American Association of Physics Teachers Chicago Section Spring Meeting, Niles West High School, Skokie, IL 60077, 9 April 2011

97) "Investigating student understanding of the universe: Age and expansion" Cochran, G. L., Coble, K., Hayes, V. L., Nickerson, M., Bailey, J. M., McLin, K. M., & Cominsky, L. R., Poster at the National Society of Black Physicists/National Society of Hispanic Physicists joint meeting, Austin, TX, 21 - 24 Sept 2011

98) "Investigating student understanding of the universe: Perceptions of astronomical sizes and distances," Camarillo, C. T., Coble, K., Hayes, V. L., Nickerson, M. D., Cochran, G. L., Bailey, J. M., McLin, K.M., & Cominsky, L. R., Poster at the National Society of Black Physicists/National Society of Hispanic Physicists joint meeting, Austin, TX, 21 - 24 Sept 2011

99) "Investigating student understanding of the universe: Structure," Hayes, V. L., Coble, K., Nickerson, M. D., Cochran, G. L., Camarillo, C. T., Bailey, J. M., McLin, K.M., &

Cominsky, L. R., Poster at the National Society of Black Physicists/National Society of Hispanic Physicists joint meeting, Austin, TX, 21 - 24 Sept 2011

100) "Investigating student understanding of the universe: Dark Matter," Nickerson, M. D., Coble, K., Cochran, G. L., Hayes, V. L., Camarillo, C. T., Bailey, J. M., McLin, K.M., & Cominsky, L. R., Poster at the National Society of Black Physicists/National Society of Hispanic Physicists joint meeting, Austin, TX, 21 - 24 Sept 2011.

101) The NuSTAR Education and Public Outreach Program, American Astronomical Society, Cominsky, Lynn R.; McLin, K. M.; NuSTAR Science Team; 2011HEAD...12.4301C

102) Using Telescopic Observations to Mentor High School Students in STEM, McLin, K. M.; Cominsky, L. R., in *Earth and Space Science: Making Connections in Education and Public Outreach.* Proceedings of a conference held at the University of Colorado, Boulder, Colorado, USA 31 July-4 August 2010. Edited by Joseph B. Jensen, James G. Manning, and Michael G. Gibbs. San Francisco: Astronomical Society of the Pacific, 2011., p.284, 2011,

103) "Using the Big Ideas in Cosmology to Teach College Students," Coble, K., Bailey, J., Cochran, G., Hayes, V., Larrieu, D., Sanchez, R., McLin, K., & Cominsky, L. Poster at the American Association of Physics Teachers Chicago Section/ Prairie Section of the American Physical Society Joint Fall Meeting, Illinois Institute of Technology, Chicago, IL 60616, 18-20 Nov. 2011

104) "Student Ideas About Cosmological Concepts: Age, Expansion, and the Big Bang," Trouille, Laura; Coble, K.; Camarillo, C.; Bailey, J.; Nickerson, M.; Cochran, G.; Hayes, V.; McLin, K.; Cominsky, L., *Bulletin of the American Astronomical Society*, 2012AAS...22010803C

105) "Student Ideas about Cosmological Concepts: Structure and Distances" Camarillo, Carmelita; Coble, K.; Trouille, L. E., Bailey, J. M.; Nickerson, M. D.; Cochran, G. L.; Hayes, V. L.; Hayes, V. L.; McLin, K. M.; Cominsky, L. R., *Bulletin of the American Astronomical Society*, 2012AAS...22010802C

106) "Investigating Undergraduate Student Ideas about Cosmological Concepts," Coble, Kimberly A.; Trouille, L. E.; Bailey, J. M.; Camarillo, C. T.; Nickerson, M. D.; Cochran, G. L.; Hayes, V. L.; McLin, K. M.; Cominsky, L. R., *Bulletin of the American Astronomical Society*, 2012AAS...22010801C

107) "The *NuSTAR* Education and Public Outreach Program," Cominsky, Lynn R., McLin, K.M., Boggs, S., Christensen, F., Craig, W., Hailey, C.J., Harrison, F., Stern, D., Zhang, W. and the NuSTAR Team, *Bulletin of the American Astronomical Society*, 2013AAS...22124425C

108) "From Uhuru at CfA to SAS-3 at MIT: Looking for X-Ray Binaries in all the Right Places," Cominsky, L., *Bulletin of the American Astronomical Society*, 2013AAS...22111303C

109) "Twelve Years of the Fermi Education and Public Outreach Program" Cominsky, Lynn,

McLin, Kevin, Simonnet, Aurore and the Fermi E/PO team arXiv:1303.0042

110) Using the Big Ideas in Cosmology to Teach College Students, McLin, Kevin M., Cominsky, Lynn R., Metevier, Anne J., Coble, Kimberly, Bailey, Janelle M. in the 2012 Fermi Symposium proceedings - eConf C121028, <u>arXiv:1303.1768</u>

111) "The *NuSTAR* Education and Public Outreach Program," Cominsky, Lynn R., McLin, K.M., Boggs, S., Christensen, F., Craig, W., Hailey, C.J., Harrison, F., Stern, D., Zhang, W. and the NuSTAR Team, American Astronomical Society, HEAD meeting #13, #123.05

112) "Twelve Years of the Fermi Education and Public Outreach Program" Cominsky, Lynn, McLin, Kevin, Simonnet, Aurore and the Fermi E/PO team, American Astronomical Society, HEAD meeting #13, #123.04

113) "Fourteen Years of the Swift Education and Public Outreach Program" Cominsky, Lynn R., McLin, Kevin, Simonnet, Aurore and the Swift E/PO team, GRB 2013, Nashville, TN, April 2013. <u>http://arxiv.org/abs/1405.2104</u>

114) "Using the Big Ideas in Cosmology to Teach College Students" McLin, K. M., Coble, K., Metevier, A.J., Bailey, J. M., & Cominsky, L. R., in "Communicating Science: A National Conference on Science Education and Public Outreach". Proceedings of a Conference held at Tucson, Arizona, USA 4-8 August 2012. Edited by J. Barnes, C. Shupla, J.G. Manning and M.G. Gibbs. San Francisco: Astronomical Society of the Pacific, 2013., p.109"

115) "Astro4Girls and Their Families: Sharing Science via Public Libraries" Sharma, M.; Smith, D.; Eisenhamer, B.; Ryer, H.; Dussault, M.; Braswell, E.; Cominsky, L.; Apple, N.; Della, T.; Whiffen, P., Harman, P., Mitchell, S., Eyermann, S., Brandehoff, S.& Dominiak, J.in "Communicating Science: A National Conference on Science Education and Public Outreach". Proceedings of a Conference held at Tucson, Arizona, USA 4-8 August 2012. Edited by J. Barnes, C. Shupla, J.G. Manning and M.G. Gibbs. San Francisco: Astronomical Society of the Pacific, 2013., p.385

116) "The PockeQube T-LogoQube: a Prototype Approach for Future Spaced Based Astronomy Experiments" Owen, Aaron, Zack, Kevin, Jernigan, J. Garrett, Twiggs, Bob James, Cominsky Lynn R., Malphrus, Benjamin K., McNeil, S., Roach-Barrette, W., American Astronomical Society, AAS Meeting #224, #122.23, <u>2014AAS...224122230</u>

117) "NASA Astrophysics Educator Ambassador Program" McLin, K. M. and Cominsky, L. R., in *Ensuring Stem Literacy: A National Conference on STEM Education and Public Outreach*. ASP Conference Series, Vol. 483, proceedings of a conference held 20-24 July 2013 at San Jose State University, San Jose, California, USA. Edited by James G. Manning, Mary Kay Hemenway, Joseph B. Jensen, and Michael G. Gibbs. San Francisco: Astronomical Society of the Pacific, 2014., p.401

118) "Fermi Communications and Public Outreach" Cominsky, L., Simonnet, A. and the Fermi E/PO team. Presented at the Fifth International Fermi Symposium, Nagoya Japan, Oct 20-22, 2014. <u>http://arxiv.org/abs/1502.07284</u>

119) "Swift Communications and Public Outreach" Cominsky, L., Simonnet, A. and the Swift E/PO team. Presented at Swift: 10 Years of Discovery, Rome Italy, Dec. 3-5, 2014. http://pos.sissa.it/archive/conferences/233/130/SWIFT%2010_130.pdf

120) "NASA Astrophysics E/PO Impact: The Astrophysics Educator Ambassador Program" Cominsky, L., McLin, K. and the SSU E/PO team, American Astronomical Society, AAS Meeting #225, #410.07, <u>2015AAS...22541007C</u>

121) "Investigating Student Ideas About the Fate of the Universe" Conlon, Mallory; Coble, Kimberly A.; Bailey, Janelle M.; Cominsky, Lynn R., American Astronomical Society, AAS Meeting #225, #327.01, <u>2015AAS...22532701C</u>

122) "Preliminary Evaluation of a New Cosmology Curriculum" Coble, Kimberly A.; Martin, Dominique; Hayes, Patrycia; Targett, Tom; Bailey, Janelle M.; Cominsky, Lynn R, American Astronomical Society, AAS Meeting #225, #245.04, <u>2015AAS...22524504C</u>

123) "Big Ideas in Cosmology: A Digital First Curriculum for College Students" Cominsky, Lynn, Coble, Kim, McLin, Kevin, Bailey, Janelle, Metevier, Anne, Peruta, Carolyn, IAU General Assembly, Meeting #29, #2245310, <u>2015IAUGA..2245310C</u>

124) "Exploring Gravitational Waves in the Classroom" Cominsky, Lynn R.; McLin, Kevin M.; Peruta, Carolyn; Simonnet, Aurore, American Astronomical Society, HEAD meeting #15, id.113.04, 2016HEAD...1511304C (4/2016)

125) "NASA's Universe of Learning: Engaging Learners in Discovery", Smith, Denise A., Lestition, Kathleen, Squires, Gordon, Greene, Michael T., Cominsky, Lynn R., and Eisenhamer, Bonnie, and the Universe of Learning Team, American Astronomical Society, AAS Meeting #228, id.112.04, 2016AAS...22811204S (6/2016)

126) "NASA's Universe of Learning: Engaging Learners in Discovery" Meinke, Bonnie K., Smith, Denise A., Lestition, Kathleen, Greene, Michael T., Squires, Gordon, and the Universe of Learning Team, DPS meeting #48, id.#406.09, <u>2016DPS....4840609M</u> (10/2016)

127127) "NASA's Universe of Learning: Engaging Learners in Discovery" Cominsky, Lynn R., Smith, Denise A., Lestition, Kathleen, Greene, Michael T., and Squires, Gordon AGU Fall 2016, abstract

ED43B-0864 (12(12/16)

128) "NASA's Universe of Learning: Connecting Scientists, Educators, and Learners" Smith, Denise A.; Lestition, Kathleen; Squires, Gordon K.; Greene, W. M.; Biferno, Anya A.; Cominsky, Lynn R.; Goodman, Irene; Walker, Allyson; Universe of Learning Team, American Astronomical

Society, AAS Meeting #229, id.411.04, <u>2017AAS...22941104S</u> (1/2017)

129) "Learning by Making for STEM Success" Lynn Cominsky, Carolyn Peruta, Susan Wandling, Betsy McCarthy, Linlin Li, Proceedings of the 2017 Conference on Interaction Design and Children, Stanford, California, June 27-30, 2017, ACM, New York, NY, ISBN: 978-1-4503-4921-5, doi 10.1145/3078072.3081315, Pages 773-776, 2017.

130) "NASA's Universe of Learning: Girls STEAM Ahead" Marcucci, Emma, Meinke, Bonnie K., Smith, Denise, A., Ryer, Holly, Slivinski, Carolyn, Kenney, Jessica, Arcand, Kimberly K., Cominsky, Lynn R., Girls STEAM Ahead with NASA Team, American Astronomical Society, DPS meeting #49, id.101.05 (10/2017)

131) "Learning by Making" workshop at the California STEAM Symposium, December 10, 2017.

132) "Overview of NASA's Universe of Learning: An Integrated Astrophysics STEM Learning and Literacy Program" Smith, Denise; Lestition, Kathleen; Squires, Gordon; Biferno, Anya A.; Cominsky, Lynn; Manning, Colleen; NASA's Universe of Learning Team, <u>2018AAS...23113103S</u> (1/2018)

133) "NASA's Universe of Learning: Providing a Direct Connection to NASA Science for Learners of all Ages with ViewSpace", Lawton, Brandon, L; Rhue, Timothy; Smith, Denise A., Squires, Gordon K; Biferno, Anya A., Lestition, Kathleen; Cominsky, Lynn R;, Godfrey, John; Lee, Janice C; Manning, Colleen, American Astronomical Society, AAS Meeting #232, id. 115.01, 2018AAS...23211501L (6/2018)

134) "NASA's Universe of Learning: Engaging Subject Matter Experts to Support Museum Alliance Science Briefings" Marcucci, Emma, Slivinski, Carolyn; Lawton, Brandon, L; Smith, Denise A., Squires, Gordon K; Biferno, Anya A., Lestition, Kathleen; Cominsky, Lynn R;, Lee, Janice C; Rivera, Thalia; Walker, Allyson; Spisak, Marilyn; American Astronomical Society, AAS Meeting #232, id. 115.02, <u>2018AAS...23211502M</u> (6/2018)

135) "Evaluation of an Interactive Undergraduate Cosmology Curriculum" White, Aaron; Coble, Kimberly Al., Martin, Dominique; Hayes, Patrycia; Targett, Tom, Cominsky, Lynn R., American Astronomical Society, AAS Meeting #232, id. 209.04, <u>2018AAS...23220904W</u> (6/2018)

136) "Impacts of a Course-based Undergraduate Research Experience in Introductory Astronomy Using Robotic Telescopes" Dobaria, Archana S.; Coble, Kimberly A.; Alejandra, Le; Berryhill, Katie, McLin, Kevin M.; Cominsky, Lynn R. American Astronomical Society, AAS Meeting #232, id. 118.04 2018AAS...23211804D (6/2018)

137) "NASA's Universe of Learning: Enabling Learners to Explore Exoplanets" Marcucci, Emma; Rivera, Thalia; Smith, Denise A., Biferno, Anya A., Squires, Gordon K; Lestition, Kathleen; Cominsky, Lynn R;, and the NASA's Universe of Learning Team,; American Astronomical Society, DPS meeting #50, id.202.02 <u>2018DPS....5020202M</u> (10/2018)

138) "Learning by Making" workshop at the California STEAM Symposium, October 29, 2018

139) "Learning by Making" short course at the California Science Teachers Association annual meeting, November 30, 2018

140) "The Universe of Learning's Authentic Ground-based Observing and Research Experience" Zellem, Robert Thomas; Dussault, Mary E.; Lawton, Brandon; Peticolas, Laura; Zimmerman-Brachman, Rachel; Smith, Denise; Squires, Gordon K.; Biferno, Anya A.; Lestition, Kathy; Cominsky, Lynn, American Astronomical Society, AAS Meeting #233, id.#352.11, 2019AAS...23335211Z(1/2019)

141) "Engaging General Education Astronomy Students with Internet-Based Robotic Telescopes" Coble, Kimberly; Dobaria, Archana; Le, Alejandra; Katie, Berryhill; McLin, Kevin; Cominsky, Lynn, American Astronomical Society, AAS Meeting #233, id.#214.01, <u>2019AAS...23321401C</u> (1/2019)

142) "NASA's Universe of Learning: Connecting Learners with the Discoveries and Scientists of NASA Astrophysics" Lee, Janice; Lawton, Brandon; Marucci, Emma; Smith, Denise; Squires, Gordon; Manning, Colleen; Cominsky, Lynn; Lestition, Kathy; Biferno, Anya A., American Astronomical Society, AAS Meeting #233, id.#212.07, <u>2019AAS...2321207L</u> (1/2019)

143) "Engaging Learners in Astrophysics via NASA's Universe of Learning Online Engagement, Partnerships, and Pathways" Peticolas, Laura and 11 coauthors including L. Cominsky, American Astronomical Society, AAS Meeting #233, id.#212.06, <u>2019AAS...23321206P</u> (1/2019)

144) "Dream, Make and Innovate: A service-learning class" Lynn Cominsky and Edward Lyon, CSU Teaching and Learning Symposium, March 9, 2019

145) "Dream, Make and Innovate: A service-learning class" Lynn Cominsky, Maker Convening, SSU, May 31, 2019.

146)" Engaging Citizen Scientists to Keep Transit Times Fresh and Ensure the Efficient Use of Transit Exoplanet Characterization Missions", Zellem, Robert and 11 coauthors including L. Cominsky, Amer Astronomical Society white paper, May 2019.

147) "NASA's Universe of Learning: Connecting Learners to the Subject Matter Experts of NASA Astrophysics" Marcucci, E. E., Lawton, B., Lee, J., Smith, D. A., Squires, G., Biferno, A., Lestition, K. and Cominsky, L., American Astronomical Society Meeting #234, id. 224.01. Bulletin of the American Astronomical Society, Vol. 51, No. 4 (6/2019)

148) "Connecting the Great American Eclipse to NASA Astrophysics" Lawton, B. and 11 other authors including L. Cominsky, Celebrating the 2017 Great American Eclipse: Lessons Learned from the Path of Totality. ASP Conference Series, Vol. 516. Edited by Sanlyn R. Buxner, Linda Shore, and Joseph B. Jensen. San Francisco: Astronomical Society of the Pacific, 2019, p.307 (6/2019)

149) "Enabling Science Learning: Effectively Providing a Direct Connection to the Science" Smith, D., Marcucci, E., Squires, G., Lee, J., Lestition, K., Biferno, A. and Cominsky, L., American Astronomical Society white paper, September 2019.

150) "NASA's Pre-Service Teacher Faculty Support by SSU" Bartolone, L., Cominsky, L., Peticolas, L., Biferno, A., Lestition, K., Smith, D., and Squires, G., Advancing Astronomy for All: ASP 2018 ASP Conference Series, Vol. 524, proceedings of a conference held (10-13 October 2018) in the California Wine Country, Sonoma Valley, California, USA. Edited by Greg Schultz, Jonathan Barnes, and Linda Shore., p.147, (11/2019)

151) "Authentic Research Pathways with Robotic Telescopes: Observing Objects That Go Bump in the Night" Spear, G., Cominsky, L., Peticolas, L., Bartolone, L., Dussault, M. and NASA's Universe of Learning Team, Advancing Astronomy for All: ASP 2018 ASP Conference Series, Vol. 524, proceedings of a conference held (10-13 October 2018) in the California Wine Country, Sonoma Valley, California, USA. Edited by Greg Schultz, Jonathan Barnes, and Linda Shore., p.315 (11/2019)

152) "Aliens and Habitable Planets: Engaging the Public in scientific practices characterizing exoplane orbits" Peticolas, L. M., Spear, G., Cominsky, L. and 9 other authors. American Geophysical Union, Fa Meeting 2019, abstract #ED11B-0859

153) "Utilizing Small Telescopes Operated by Citizen Scientists for Transiting Exoplanet Followup" Zellem, R. T. and 33 coauthors including L. Cominsky, American Astronomical Society meeting #235, id. 337.07. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)

154) "Authentic Research with NASA's Universe of Learning Global Telescope Network" Cominsky, L. R.; Peticolas, L.; Spear, G.; Lawton, B.; Dussault, M.; Zellem, R.; Zimmerman-Brachman, R.; Smith, D.; Squires, G.; Biferno, A.; Lestition, K.. American Astronomical Society meeting #235, id. 337.06. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)

155) "NASA's Astrophoto Challenges: Experiences with real data for lifelong science learners" Dussault, M. and 10 coauthors including L. Cominsky, American Astronomical Society meeting #235, id. 337.04. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)

156) "Authentic Experiences Using Data with NASA's Universe of Learning" Lawton, B. and 9 coauthors including L. Cominsky, American Astronomical Society meeting #235, id.
337.04. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)
157) "NASA's Universe of Learning: Connecting Historically Underserved Audiences with NASA Astrophysics" Marcucci, E., Smith, D., Lestition, K., Squires, G., Biferno, A., Cominsky L. and NASA's Universe of Learning, American Astronomical Society meeting #235, id. 33 7.03. Bulletin of American Astronomical Society, Vol. 52, No. 1 (1/2020)

158) "The Integral Role of Research Astronomers in NASA's Universe of Learning: Broadening the Network of Connections between Subject Matter Experts and Learners" Lee, J. C. and 12 coauthors including L. Cominsky. American Astronomical Society meeting #235, id. 33 7.03. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)

159) "NASA's Universe of Learning: Framework and Evaluation Findings" Smith, D., Squires, G., Lestition, K., Biferno, A., Cominsky L., Marcucci, E. and NASA's Universe of Learning Team,

American Astronomical Society meeting #235, id. 337.01. Bulletin of the American Astronomical Society, Vol. 52, No. 1 (1/2020)

160) "NASA's Universe of Learning: Explore Exoplanets with ViewSpace" Marcucci, E., Rhue, T., Smith, D., Squires, G., Biferno, A., Lestition, K., Cominsky, L., Godfrey, J. and the ViewSpace Team, AAS Division of Planetary Science meeting #52, id. 410.05. Bulletin of the American Astronomical Society, Vol. 52, No. 6 e-id 2020n6i410p05 (10/20)

161) "Astronomy from Home: Informal Learning with Robotic Telescopes" Cominsky, L., Peticolas, I Bartolone, G.S.L., Dussault, M., Zellem, R., Smith, D., Squires, G., Biferno, A., and Lestition, K., ASI Embracing the Future: Astronomy Teaching and Public Engagement ASP Conference Series, Vol. 531 proceedings of a virtual conference held 3-December 2020. Edited by Greg Schultz, Jonathan Barnes, Andrew Fraknoi, and Linda Shore. San Francisco: Astronomical Society of the Pacific, (11/21)

162) "NASA'S Neurodiversity Network (N3)" Cominsky, L., Riccio, A., Martin, W., Peticolas, L., Mendez, B., Perez, S., Williams, G., Grillo-Hill, A., and Valcarcel, J., Proceedings of the Second Workshop on Astronomy Beyond the Common Senses for Accessibility and Inclusion (2WAI) Virtual Conference, Editors: Santiago Vargas, Beatríz García, Gery Hemming, Sonia Duffau, Nicolas Vázquez and Angela Pérez, pp. 34-38 (11/21)

163) "3U3: The IMAP Student Collaboration CubeSat Project Evaluation Strategies and Early Findings", Bartolone, L. and 34 additional authors including L. Cominsky, AGU Fall Meeting 2021, held in New Orleans, LA, 13-17 December 2021, id. ED25B-0582 (12/21)

164) "3U3 CubeSat Electronics Designs to Study Oxygen Upwelling in the Cusp", Foster, W. and 12 other authors including L. Cominsky, AGU Fall Meeting 2021, held in New Orleans, LA, 13-17 December 2021, id. SA35G-1959 (12/21)

165) "NASA's Neurodiversity Network (N3): Creating Inclusive Learning Activities Across the Spectrum", Cominsky, L., Peticolas, L., Riccio, A., Martin, W., Mendez, B., Perez, S., Grillo-Hill, A., and Valcarcel, J., ASP 2021: Sharing Best Practices – Astronomy Teaching and Public Engagement ASP Conference Series, Vol. 533, Proceedings of a virtual conference held 18-20 Nov 2021. Edited by Greg Schultz, Joseph B. Jensen, and Linda Shore. San Francisco: Astronomical Society of the Pacific, 2022, p.173 (2022)

166) "Multi Multi-messenger Astrophysics Master Class: Gamma Rays", Cominsky, Lynn, Gill, Holden, Maheso, D.J., and Simonnet, Aurore. Poster at the 10th International Fermi Symposium, October 11, 2022.

167) "NASA's Neurodiversity Network (N3): Creating Inclusive Learning Activities Across the Spectrum", Cominsky, L. Mendez, B., Peticolas, L., Martin, W., Riccio, A., Williams, G., Grillo-Hill, A., and Valcarcel, J., American Astronomical Society Meeting #241, id. 221.07. Bulletin of the American Astronomical Society, Vol. 55, No. 2 e-id 2023n2i221p07, (1/23).

Grant Funding

1) March 1980, "World Wide Coordinated Observations of X-ray Sources", National Science Foundation, W. H. G. Lewin (P. I.), C. Canizares, L. Cominsky, G. Jernigan, J. McClintock, S. Rappaport (Co-I.), \$50,342 for 24 months.

2) September 1982, "Studies of Highly Variable Galactic X-ray Sources with HEAO-1", NASA Space Astrophysics Data Analysis Program, NAG 8-446, P. B. Price (P. I.), L. Cominsky (Lead Experimenter), \$10,200 for 12 months.

3) April 1982, "Feasibility Study for an Space Sciences Laboratory-Based Project Operations Control Center for the Extreme Ultraviolet Explorer Satellite", California Space Institute, P. B. Price (P. I.), L. Cominsky (Project Manager), \$25,000 for 12 months.

4) June 1983, "Time Dependent Radiative Transfer Calculations of the Reprocessing of X-ray and γ -ray Bursts", Institute for Geophysics and Planetary Physics, P. B. Price (P. I.), L. Cominsky (Project Manager), and R. A. London (Lawrence Livermore National Laboratory Collaborator), \$8,000 for 12 months.

5) March 1984, "Studies of Highly Variable Galactic X-ray Sources with HEAO-1", NASA Space Astrophysics Data Analysis Program, continuation of NAG 8-446, C. McKee (P. I.), L. Cominsky (Lead Experimenter), \$20,100 for 12 months.

6) September 1986, "Visiting Scholar for the Sonoma State University Radio Telescope Project", SSU Lottery Funding, L. Cominsky, Project Advisor, \$500 for 12 months.

7) October 1986, "The Sonoma State University Radio Telescope Project", Society of Physics Students Allied Awards Program, L. Cominsky, Project Advisor, \$1600 to purchase dishes and other miscellaneous parts.

8) December 1987, "The Eclipsing X-ray Burst Source MXB1659-29", American Astronomical Society Small Research Grants Program, L. Cominsky, Principal Investigator, \$1955 for 12 months

9) June 1987, "Multi-mission Studies of Massive X-ray Binaries", NASA Space Astrophysics Data Analysis Program, NAG8-649, L. Cominsky, Principal Investigator, \$53,000 for 24 months

10) June 1987, "Motors for the SSU Radio Telescope Project", Parker-Hannifin Foundation, D. Poland, Department Chair and L. Cominsky, Project Advisor, \$3816 to purchase stepper motors and encoders.

11) October 1987, "Cable for the SSU Interferometer Radio Telescope Project", Sonoma State University Enterprises, Inc., L. Cominsky, Project Advisor and Gordon Spear, SSU Observatory Director, \$1674 to purchase low loss cable.

12) December 1988, "High Time Resolution Studies of Binary X-ray Pulsars", NASA Astrophysics Data Program, NAG 5-1260, L. Cominsky, Principal Investigator, \$116,020 for three years.

13) January 1989, "Teaching with Sun Computers at Sonoma State University", Sun Microsystems, Inc., L. Cominsky, Principal Investigator and Gordon Spear, Co-investigator, \$27,800 equipment grant for Sun 3/60 Workstation.

14) April 1989, CSU High School/ University Research Collaboration Initiative, L. Cominsky, Principal Investigator, \$1200 for Sonoma State University, \$2600 to Analy High School collaborators Jay Goldberg and Sarah Hurley.

15) May 1989, "ROSAT Observations of MXB1659-29 and EXO 0748-676", NASA ROSAT Guest Investigator Program, NAG 5-1684, K. Wood, Principal Investigator, L. Cominsky, Co-investigator, \$7200 for Sonoma State University for 12 months.

16) December 1989, "Microprocessor Applications Laboratory Development", Instructional Development and Technology Program, Sonoma State University Lottery Funds, L. Cominsky, Project Director, \$5652 for released time and equipment.

17) December 1990, "The Sonoma State University Interferometer Radio Telescope", SSU Enterprises, Inc., L. Cominsky, Project Advisor and Ildgoz Modeer, Student Manager, \$2820 to purchase disk drive for Sun Workstation to support Radio Telescope project.

18) October, 1991, "Motorization and Computer Control of the Very Small Array Radio Interferometer at Sonoma State University", National Society of Physics Students, L. Cominsky, Advisor and H. Jessop, SPS President, \$2000 for motorizing dishes of Very Small Array project.

19) July, 1992, "Tracking Observations with the Very Small Array", National Science Foundation Research Experiences for Undergraduates, L. Cominsky Principal Investigator, and Greg Sprehn, \$4470 for student stipend and travel expenses to American Astronomical Society Meeting to present work.

20) August, 1992, "Long Term Monitoring of Neutron Star Binary Systems using BATSE", NASA Gamma Ray Observatory Guest Observer Program, NAG 5-2032, L. Cominsky, Principal Investigator, \$58,000 for 12 months.

21) October, 1992, "ROSAT Observations of the Binary Be-star/Radio Pulsar PSR1259-63", NASA ROSAT Guest Observer Program, continuation of NAG 5-1684, L. Cominsky, Principal Investigator, \$20,000 for 12 months.

22) March, 1993, "Improving Research and Educational Opportunities at the SSU Observatory", CSU Research, Scholarship and Creative Activities Program, L. Cominsky, Principal Investigator, \$3192.

23) April, 1995, "Periastron Observations of A0535+26 = GRO J0542+26?", NASA CGRO Guest Investigator Program, Cycle 4, continuation of NAG 5-2032, L. Cominsky, Principal

Investigator, K. Wood and P. Hertz, Co-investigators, \$35943 for SSU, \$10,000 for NRL for 12 months.

24) May, 1995, "Magnetospheric Accretion in PSR 1259-63", NASA ASCA Guest Investigator Program, Cycle 3, NAG 5-2948, L. Cominsky, Principal Investigator, \$16476 for 12 months.

25) September, 1995, "OSSE Observations of PSR 1259-63 near Apastron", NASA CGRO Guest Investigator Program, Cycle 5, continuation of NAG 5-2032, L. Cominsky, Principal Investigator, J. Eric Grove, Co-investigator, \$30,000.

26) August, 1996, "Investigation of X-ray Variability from 4U1755-33", NASA RXTE Guest Investigator Program, Cycle 1, NAG 5-3324, P. Michelson, Principal Investigator, M. Roberts, L. Cominsky, Co-investigator, \$4000 for SSU for 12 months.

27) August, 1996, "Lack of Orbital Period Evolution in EXO0748-676", NASA RXTE Guest Investigator Program, Cycle 1, NAG 5-3324, Paul Hertz, Principal Investigator, Kent Wood, L. Cominsky, Co-investigators, \$5009 for SSU for 12 months.

28) September, 1996, "Probing the Matter Distribution in the 4U1907+09 System", NASA ASCA Guest Investigator Program, Cycle 4, continuation of NAG 5-2948, P. Michelson, Principal Investigator, M. Roberts and L. Cominsky, Co-investigators, \$5656 for SSU for 12 months.

29) February, 1997, "XTE Observations of PSR 1259-63 at Apastron", NASA RXTE Guest Investigator Program, Cycle 2, NAG 5-3702, L. Cominsky, Principal Investigator, V. Kaspi, F. Nagase, B. Giles, Co-investigators, \$23,000 for SSU, \$3000 for V. Kaspi for 12 months.

30) February, 1997, "A Test of Spin-Orbit Coupling in the 4U0115+63 System", NASA RXTE Guest Investigator Program, Cycle 2, NAG 5-3702, L. Cominsky, Principal Investigator, V. Kaspi, Co-investigator, \$13,000 for SSU, \$3000 for V. Kaspi for 12 months.

31) May, 1997, "Continued Eclipse Timing of EXO 0748-676", NASA RXTE Guest Investigator Program, Cycle 2, NAG 5-4403, P. Hertz, Principal Investigator, K. Wood and L. Cominsky, Co-investigators, \$5000 for SSU for 12 months.

32) September, 1997, "High Energy Physics with the Gamma-ray Large Area Space Telescope", NSF Career Advancement Award Program, PHYS-9722126, L. Cominsky, Principal Investigator, \$57,420 for 12 months.

33) May, 1998, "GLAST Mission Concept Studies and Public Outreach", NASA Goddard Space Flight Center, NAG5-7267, L. Cominsky, Principal Investigator, \$45,000 for 9 months.

34) June, 1999, "Swift Education and Public Outreach", NASA Goddard Space Flight Center, NAG5-8603, L. Cominsky, Principal Investigator, \$10,000 for 6 months. Supplemented in October, 1999 by \$31,950, and in January, 2000 by \$20,000.

35) October, 1999, "Space Mysteries: Inquiry-driven Web Explorations that Teach Physical Science and Mathematics Standards", NASA LEARNERS Program, NCC5-429, L. Cominsky, Principal Investigator, \$665,802 for three years.

36) January, 2000, "Swift Education and Public Outreach", NASA Goddard Space Flight Center, L. Cominsky, Principal Investigator, \$920,782 for 6 years. Supplemented to total \$2.2 million.

37) April, 2000, "*GLAST Education and Public Outreach*", NASA through Stanford University, L. Cominsky, Principal Investigator. Total allocated: \$7,071,272 through 8/10/2013.

38) May, 2000, *North Bay Science Project*, State of California Subject Matter Program through the UC President's Office, \$179,332 for 1 year (annually renewable)

39) July, 2000, *Swift Public Relations Grant*, NASA GSFC, L. Cominsky, Principal Investigator, \$27,898 through 9/30/01.

40) April, 2001, *Structure and Evolution of the Universe Educational Forum Support*, NASA through Harvard-Smithsonian Center for Astrophysics, L. Cominsky, Principal Investigator, \$95,737 through 12/31/01. Augmented by \$87,271 in January, 2002.

41) May 2001, *North Bay Science Project*, State of California Subject Matter Program through the UC President's Office, \$195,000 for 1 year (annually renewable), L. Cominsky Faculty Advisor.

42) November, 2001, *Augmentation to Swift and GLAST Public Relations*, NASA GSFC, L. Cominsky, Principal Investigator, \$209,853 through 9/30/06.

43) June, 2002, Change of PI on *Swift Education and Public Outreach Program*, NASA GSFC, to L. Cominsky, Principal Investigator, \$1,429,683 for 5/1/00-1/31/07 (included in 36 above)

44) August, 2002, *XMM-Newton Education and Public Outreach Program*, NASA GSFC, L. Cominsky, Principal Investigator, \$597,000 for 9/1/02- 9/30/06

45) October 2002, *North Bay Science Project*, State of California Subject Matter Program through the UC President's Office, L. Cominsky Principal Investigator and Faculty Advisor, awarded \$207,550 for July 1, 2002-June 30, 2003.

46) February 2004, *Educator Ambassador Support*, NASA's Goddard Space Flight Center L. Cominsky Principal Investigator, \$78,000 through 9/30/06.

47) February 2004, *Educator Ambassador Support*, Jet Propulsion Laboratory, L. Cominsky, Principal Investigator, \$ 13,095 from 10/01/2003 to 09/30/2004 for GALEX, and \$ 13,095.00 from 10/01/2003 to 9/30/2004 for LISA.

48) February 2004, *Phase A SMEX Studies*, L. Cominsky Principal Investigator E/PO portion, \$10,000 for NuSTAR

49) February 2004, *Phase A SMEX Studies*, L. Cominsky Principal Investigator E/PO portion, \$10,000 for DUO.

50) May 2004, *North Bay Science Project*, State of California Subject Matter Program through the UC President's Office, L. Cominsky Principal Investigator and Faculty Advisor, awarded \$180,000 for July 1, 2003 - September 30, 2004.

51) October 2004, *EXIST Concept Study for Black Hole Finder Probe*, NASA through Harvard University, L. Cominsky, Principal Investigator, \$30,000 through 9/30/2006.

52) January 2005, Beaumont Foundation of America, 30 laptops, 12 digital cameras, and 2 printers for Roseland University Prep Charter School. Estimated value: \$65,000, L. Cominsky led NASA partnership effort with RUP, helped write proposal and letter of support. SSU's E/PO Group is a member of Roseland University Prep's Project Team. The E/PO Group is providing technical assistance to Roseland's Project Team members, including the Science Teacher implementing the Beaumont Technology Project. We also provide curricula instruction materials that support GLAST investigation, such as "Far Out Math" and "Scale the Universe" available for use in the classroom. We are providing limited in-class staff support to the Science Teacher as this staff person is learning to teach the project materials. We will also direct the Project Team to on-line resources that support students' participation in GLAST.

53) April 2005, *NuSTAR Education and Public Outreach*, NASA through California Institute of Technology, L. Cominsky, Principal Investigator, \$45,000 through 2/30/2006.

55) October 2005, *Supernova Acceleration Probe Education and Public Outreach*, University of California, Berkeley, L. Cominsky, Principal Investigator, \$15,000 through 9/30/2006.

56) January 2007, *GLAST and Swift Public Relations*, NASA, L. Cominsky, Principal Investigator, \$48,929 through January 2011. Augmented by \$56,364 in January 2008 and by \$71,142 in August, 2008. Augmented by \$58,000 in December, 2008; \$59,658 in February 2010, and \$60,000 in April 2011.

57) March 2007, *XMM-Newton Education and Public Outreach (extended mission)*, NASA, L. Cominsky, Principal Investigator, \$158,778 through March 2011. Augmented by \$159,900 in June 2008, \$153,222 in April 2009, \$152,870 in September 2009, \$74,704 in December 2010, and \$78,296 in April 2011.

58) June 2007, *Swift Education and Public Outreach (extended mission)*, NASA, L. Cominsky, Principal Investigator, \$188,094 through June 2011. Augmented by \$189,286 in May 2008, \$177,237 in June 2009, \$184,391 in June 2010 and \$160,000 in July 2011

59) September 2007, *SNAP Education and Public Outreach*, UC Berkeley, L. Cominsky, Principal Investigator, \$30,004 through January, 2008.

60) March 2008, *NuSTAR Education and Public Outreach*, NASA through CalTech, L. Cominsky, Principal Investigator, \$70,000 through November 2009. Augmented by \$47,000 through January 2012. Augmented by \$350,000 through August 2013.

61) March 2009, Visions of the Universe exhibits in conjunction with the International Year of Astronomy 2009, NASA HQ, L. Cominsky, Principal Investigator, \$10,000 through February 2010.

62) March 2010, Using The Big Ideas In Cosmology To Teach College Students: Curriculum Development, NASA EPOESS, L. Cominsky, Principal Investigator, \$499,596, 3/1/2010-2/28/2014 (one year no-cost extension).

63) March 2011, *Improving the STEM Pipeline at Sonoma State University*, California Space Grant, L. Cominsky, Principal Investigator, \$8000, through August 26, 2011. Augmented by \$10,000 in May 2012, augmented by \$10,000 in May 2013.

64) September 2011, S³: STEPping up STEM at SSU, NSF-STEP, L. Stauffer Principal Investigator, L. Cominsky Co-PI, \$987,153 for five years

65): January 2012, S⁴: Small Satellites for Secondary Students, NASA EPOESS, L. Cominsky Principal Investigator. \$549,308 for three years.

66) January 2012, *Fermi and Swift Public Relations*, NASA, L. Cominsky, Principal Investigator, \$180,000 through January 2016.

67) May 2012, XMM-Newton Education and Public Outreach (extended mission), NASA, L. Cominsky, Principal Investigator, \$120,000 through May 2016

68) May 2012, *Swift Education and Public Outreach (extended mission)*, NASA, L. Cominsky, Principal Investigator, \$240,000 through May 2016

69) July 2013, *Promising Course Redesign for Astro 100*, Chancellor's Office, L. Cominsky, Principal Investigator, \$40,268 for AY13-14.

70) August 2013, *Fermi Education and Public Outreach (extended mission)*, NASA, L. Cominsky, Principal Investigator, \$200,000 in 12/2013, augmented by \$166,865 in 6/2014, by \$197,000 in 2/2015 and by \$170,000 in 6/2015.

71) November 2013, *Learning by Making: STEM Success for Mendocino County*, Department of Education i3 program, Susan Wandling PI and L. Cominsky Co-PI, 1/1/14 – 12/31/18, \$2,930,459 plus \$454,500 in required matching funds.

72) October 2013, *Teaching Einstein's Universe at Community Colleges*, National Science Foundation, L. Cominsky, Principal Investigator, 210,000 for 7/1/14 - 6/30/17 and supplement of \$29,836 in February 2016.

73) April 2014, *Rockets and CubeSats in the STEM Pipeline*, California Space Grant, L. Cominsky Principal Investigator, \$9975. Additional funding of \$9979 in February 2015, \$3000 in 2017.

74) June 2015, *Fermi and Swift Communications and Outreach*, NASA, L. Cominsky, Principal Investigator, \$300,000 for 6/1/2015 – 5/31/2018

75) October 2015, *Rising Data: Flight Project Curriculum for Community College Students*, NASA Minority University Research and Education Program Community College Curriculum Improvement, E. Quealy, Principal Investigator (Napa Valley College), L. Cominsky Co-investigator, \$749,922 total for three years, including \$268,645 to SSU.

76) January 2016, *NASA's Universe of Learning*, NASA Science Mission Directorate Cooperative Agreement, D. Smith, Principal Investigator (Space Telescope Science Institute), L. Cominsky Co-investigator, \$1,564,824 to SSU for five years.

77) April 2016, *EdgeCube: A 1U Global Monitor for Earth's Ecosystem*, SMD and SpaceGrant, L. Cominsky Principal Investigator, \$200,000 for two years.

78) July 2016, *STEM Education Through Sophomore Innovation (SETSI)*, Jeremy Qualls, Principal Investigator, L. Cominsky, Co-PI, NSF IUSE program, \$584,705 for three years. Cominsky became PI after Qualls left SSU in July 2018. One year NCE.

79) July 2018, Fermi Gamma-ray Space Telescope and Neil Gehrels Swift Observatory Communications and Outreach, 7/23/2018 -7/22/2021, \$260,000 for three years.

80) October 2018, *Developing a Student-Driven STEM and Computer Science Curriculum for Rural Schools*, L. Cominsky, Principal Investigator, Department of Education - Education Innovation and Research program, 10/01/2018 - 09/30/2023, \$3,927,476.00 for five years plus \$400,000 in matching funds.

81) September 2020, *Expanding STEM Ethics Education to Reduce Gender Bias and Sexual Harassment*, M. Paolucci, PI, L. Cominsky, Co-PI, NSF Ethical and Responsible Research, 9/1/2020 – 8/31/2023, \$320,803 for three years.

82) January 2021, *NASA's Neurodiversity Network*, L. Cominsky, Principal Investigator, NASA's Science Activation Program, 1/1/2021 – 12/31/2025, \$4,962,523 for five years. Augmented in January 2023: additional \$523,521.

83) January 2022, Communications and Outreach for the Fermi Gamma-ray Space Telescope and Neil Gehrels Swift Observatory, 10/1/2021 – 9/30/2024, \$300,000 for three years.

84) May 2023, Engaging Autistic STEM Undergraduates in Creating Supportive Learning Environments at California State Universities, 5/18/2023-5/31/2025. Ariana Riccio (EDC) PI, L. Cominsky, Co-PI, NSF IUSE, \$359,877 for two years.

85) January 2024, *Scaling an innovative STEM And Computing Education Support (STEMACES) Model for Improved Science Learning,* Laura Peticolas PI, L. Cominsky, Co-PI, Department of Education - Education Innovation and Research program, , 1/1/2024 – 12/31/2029, \$7,904,722.

SERVICE ACTIVITIES

Professional Activities Outside Sonoma State University

- Sigma Xi Distinguished Lecturer 2023-2024
- Member of NSF Third Generation GW Detector Advisory Committee 2023
- NASA Bridge Program DEIA Committee Co-Chair 2022
- Reviewer for NASA Student Collaborations 2022, 2024
- Ombudsperson, LIGO Scientific Collaboration, 2019 December 2021
- Roseland District Charter Board member, June 2019 December 2021
- External Reviewer, Humboldt State University Physics Department, April 2018
- Hosted LIGO-Virgo Scientific Collaboration Meeting at SSU, March 2018
- Scientific Organizing Committee for IAU Symposium 338 Gravitational Wave Astrophysics, October 2017
- External Reviewer, Cal Poly San Luis Obispo Physics Department, February 2017
- External Reviewer, San Jose State Physics Department, November 2016
- Advisory Board, NASA Aerospace Academy at CSUF, 2016
- Board of Directors, Astronomical Society of the Pacific, 2016 2019
- Board of Directors, Contemporary Physics Education Project, 2016 present
- AAAS/PHYS division Executive Committee member, 2015 2019
- Vice Chair, NSF Committee of Visitors to Astronomical Sciences Division, 2014
- External Reviewer, CSU San Bernardino Physics Department, February 2014
- Nominating Committee, HEAD 2013
- Chair, Local Organizing Committee, Far West Section of APS annual meeting, November 2013
- Past Chair, California-Nevada Section of the American Physical Society, 2013-2014
- Chair, California-Nevada Section of the American Physical Society, 2012-2013
- Chair, Formal Education Working Group, LIGO Scientific Collaboration 2012-present
- LIGO Scientific Collaboration, Member 2011 present
- Chair Elect, California-Nevada Section of the American Physical Society, 2011-2012
- External Reviewer, CSU East Bay Physics Department, March 2011
- Executive Committee member, Astrophysics Division, American Physical Society, Feb. 2010 April, 2012.
- External Reviewer, Northern Arizona University Physics & Astronomy Department, March 2010
- Vice Chair, California Section of the American Physical Society, 2010-2011
- Education Prize Committee, American Astronomical Society, January 2009 2012, Chair 2010-2011
- Member, E/PO Infrastructure Study Group for Astro2010, 2009
- External Reviewer, SUNY Geneseo Physics and Astronomy Department, April 2008
- Nominating committee, Astronomy Division of the AAAS, February 2008 Feb. 2010
- Symposium Organizer, "World-Wide Hunt for Gamma-ray Bursts" AAAS, February 2008
- LIGO Program Advisory Committee member, December 2007 December 2010

- External Physics Department Program Review, St. Mary's College, March 2007
- Friends of the Federated Indians of the Graton Rancheria Board Member, 2006 -2010
- Roseland University Prep High School Advisory Board Member, 2006 December 2021
- Symposium Organizer, "A Giant Flare from a Magnetar: Blitzing the Earth from Across the Galaxy" AAAS, February 2006
- Sonoma County Women's "No Name" group, member, 2005 2020
- NASA Education and Public Outreach Lead, Supernova Acceleration Probe (SNAP) Mission Concept, October 2005 – September 2008
- NASA Scientific Co-investigator and Education and Public Outreach Lead, Nuclear Spectroscopic Telescope Array (NuSTAR), October 2005 present
- NASA Education and Public Outreach Lead, Energetic X-ray Imaging Space Telescope (EXIST) Mission Concept, October 2004 -2010
- Scientific Organizing Committee and Teacher's Workshop, Beyond Einstein meeting at Stanford University, May 2004
- Independent reviewer for QuarkNet Program, DOE/NSF, March 2004
- Symposium Co-organizer, "New Findings on the Evolution of the Universe," AAAS, February 2004
- Scientific Organizing Committee and Session Co-organizer, ISMD 2004, December 2003

 August 2004 <u>http://physics.ucr.edu/ismd2004/</u>
- NASA Education and Public Outreach Lead, XMM-Newton mission, October 2002 present
- Main Scientific Organizer "Quarks to the Cosmos" Session, COSPAR, October 2002
- Education and Public Outreach Lead, NASA Swift Mission, June 2002 January 2015
- NASA Structure and Evolution of the Universe sub-committee Member, December 2001
 – 2004
- Stanford University Kavli Institute Director Search Committee, September 2001 April 2002
- Press Officer, Chandra Science Symposium, September, 2001
- Press Officer, Gamma 2001 Symposium, April, 2001
- SLAC Experimental Program Advisory Committee November 2000 November, 2002
- Chair, Schramm Award for HEA Science Journalism Committee, 2000
- SLAC Communications Committee, Spring 2000
- Director, NASA Education and Public Outreach at SSU 1999 present (renamed to EdEon in 2017.
- Organizing Committee, Cosmic Genesis and Fundamental Physics, October 1999 http://www.quarkstothecosmos.org/history.html
- Connections: Quarks to the Cosmos Interdisciplinary Study Group, 1999 2001
- Press Officer, scientific co-investigator and Education and Public Outreach Lead, NASA's Gamma-ray Large Area Space Telescope (Fermi) mission 1999 present
- Press Officer and co-investigator, NASA Swift Mission 1999 present
- Deputy Press Officer, American Astronomical Society 1998 2008
- Chair, Gamma-ray Large Area Space Telescope Public Affairs Working Group 1997 1999
- Press Officer, Fourth CGRO Symposium April 1997
- SLAC User's Organization Executive Committee 1996 1999, Secretary 1997 1998

- Press Officer, HEAD/AAS 1996 2002
- NASA Gamma-ray Large Area Space Telescope Facility Science Team Member 1996 1999
- Executive Committee, AAS High Energy Astrophysics Division 1995 1997
- Local Organizing Committee, High Energy Astrophysics Division meeting 1994
- Organizing Committee, Towards the Next Generation High Energy Gamma Ray Telescope 1994
- NASA Science Operations/Mission Operations Working Group 1994 1995
- NASA Peer Review Committee for ASCA Guest Observer Proposals 1994
- Scientific Organizing Committee, Second Compton Gamma Ray Observatory Symposium 1993
- NASA Advanced X-ray Astronomy Facility User's Group 1993 1998
- Nominating Committee for the High Energy Astrophysics Division of the American Astronomical Society (HEAD/AAS) 1993
- Visiting Professor, Stanford Linear Accelerator Center 1993 1999
- NASA Senior Review Committee for Mission Operations and Data Analysis 1992
- Consultant to the Astrogravity Group at Stanford Linear Accelerator Center 1992
- President, Sonoma State Chapter of Sigma Xi 1991 2000
- Co-investigator on the Unconventional Stellar Aspect experiment 1991 2000
- NSF Peer Review Committee for Undergraduate Course and Curriculum Program 1991
- Chair, NASA Peer Review panel for Gamma Ray Observatory Proposals 1990
- Secretary/Treasurer, Sonoma State Chapter of Sigma Xi 1990 1991
- NASA Peer Review Committee for ROSAT Guest Observer Proposals 1989
- NASA Peer Review Committee for Ginga Guest Observer Proposals 1987, 1988
- NASA Extreme Ultra-Violet Explorer Project Software Review Board 1986 1991
- Co-investigator on the NASA Extreme Ultraviolet Explorer 1985 1991
- NASA High Energy Astrophysical Observatory A-1 Guest Observer 1982 1985

Sonoma State University Service Activities

- Host, Women in Conversation with Astronaut Nicole Mann, September 20, 2023.
- Disability Services Advisory Committee: Fall 2022 -
- Search Committee member, CIO, SSU Spring 2020
- Member, Physics & Astronomy RTP committee, Fall 2019 Fall 2021, Fall 2022 present
- Engineering Science Task Force Committee member Fall 2015- Spring 2016
- University RTP Committee member Fall 2015 December 2018, Fall 2021 semester
- SSU Academic Foundation Advisory board member, Fall 2011 June 2018
- Chair, Physics & Astronomy RTP Committee 2013-2014
- Member, School of Science and Technology RTP Committee 2010 2013, 2014-2015
- Physics and Astronomy Tenure-track Search Committee, Chair for two searches, Fall 2006
- Chemistry Tenure-track Search Committee, Chair for two searches, Fall 2005
- Chair, Department of Chemistry, August 2005 January 2007, and August 2018-January 2019.

- Member, University RTP appeals committee, August 2004 2008
- Chair, Department of Physics and Astronomy, August 2004 May 23, 2019
- RTP Committee, Engineering Science Department, member 2004 2007
- Vice President's Budget Advisory Committee member, 2003-2005
- RTP Committee, Computer Science Department, member 2002
- RTP Committee, Physics and Astronomy Department, member 2001- 2002, Chair 2002- 2010
- Physics and Astronomy Tenure-track Search Committee Chair, 2000-2001, member 2002-2003
- Chair, FMI Appeals Panel 2, Spring 2000
- RTP Evaluation for Alexandra von Meier, December 1999
- RTP Evaluation for Michael Litle, November 1999
- Sabbatical Review committee for Robert Plantz, November 1999
- Chair, Post-tenure Review Committee for Joseph Tenn, Spring 1999
- School of Natural Sciences Retention, Tenure and Promotion Committee 1999
- Engineering Sciences study committee 1998 2002
- University Retention, Tenure and Promotion Committee 1997 1998
- Board of Directors, Sonoma State University Enterprises, Inc. 1997 2001
- Commencement Committee, 1994 1995
- Scholarship Committee, 1994 1995
- Presidential Search Advisory Committee 1991 1992
- Computer and Information Science Department Search Committee 1990 1991
- Advisor to Society of Physics Students organization 1991 2001
- Vice President's Budget Advisory Committee 1989 1992
- Chair, Fund Raising Drive for School of Natural Sciences 1989 1991
- Women's Resource Center Advisory Board, 1989 1995
- CSU Women's council member, 1988 1995
- Faculty Mentor 1988 1990
- Advisor to Women in Science student organization 1989 1990
- Task Force on Women and Minorities in Science and Engineering member 1988 1989
- WASC Task Force on Active Involvement in Learning member 1987 1988
- Faculty Affirmative Action Committee member 1986 1989, chair 1987 1988
- Advisor to Radio Telescope Project 1986 1994

Media Outreach Activities

1) April, 1989. Hour-long KSRO Radio Interview about Venus Magellan mission and SSU Physics and Astronomy program (with Prof. Gordon Spear).

2) February, 1992. Television Interview about research activities in the California State University system, for The Learning Channel.

3) April, 1993. KRCB-TV Co-host during Membership Drive Space Segment.

4) March, 1996. Three items in consecutive weeks during KRON-TV news: the bursting pulsar, and two on upcoming observations of Comet Hyakutake (with Brian Hackney).

5) April, 1996. High Energy Astrophysics Division Meeting in San Diego, CA. Many radio and print media interviews regarding the discovery of the fastest oscillations from neutron stars using the Rossi X-ray Timing Explorer satellite. Organized the press activities for this meeting.

6) April, 1997. Compton Gamma-ray Observatory Symposium in Williamsburg, VA. Many radio and print media interviews regarding the discovery of an anti-matter fountain north of the Galactic Center. Organized the press activities for this meeting.

7) November, 1997. High Energy Astrophysics Division Meeting in Estes Park, CO. Many radio and print media interviews regarding the discovery of a diffuse halo of high energy gamma-rays around the Galaxy, and evidence for relativistic frame-dragging near black holes and neutron stars. Arranged CNN coverage of the frame-dragging story. Organized the press activities for this meeting.

8) December, 1997. Half-hour radio interview show on KRCB-FM, regarding gamma-ray bursts and the new Gamma-ray Large Area Space Telescope (GLAST) mission.

9) January, 1998. "Astronomy Update", National Public Radio Science Friday. News from the Washington, DC American Astronomical Society Meeting (with Ira Flatow, and Dr. Eli Dwek), as part of the AAS meeting's press activities.

10) March, 1998. Acting press officer for the American Astronomical Society, while Steve Maran was away observing the total solar eclipse.

11) June, 1998. Television interview about Transition Region Active Coronal Experiment (TRACE) observations of very fast and energetic flares in the solar corona, for San Diego independent channel 41, as part of the American Astronomical Society meeting's press activities.

12) December, 1998. Released outreach web site for the Gamma-ray Large Area Space Telescope Facility Science Team: http://www-glast.sonoma.edu

13) January, 1999. Assisted in AAS press activities, including planning and moderating 8 press briefings, including those on superflares on sun-like stars, superclusters, and cave paintings in Guam. Participated in several media interviews.

14) April, 1999. High Energy Astrophysics Division Meeting in Charleston, SC. Many radio and print media interviews regarding the discovery of "medium-sized" black holes, exotic photon bubbles and hypernova remnants. Organized the press activities for this meeting. Originated "virtual press conference technique" written up in SW (Science Writing) magazine, Spring 1999 issue, by Charles Petit (US News and World Report).

15) September, 1999. Discovery Channel one-hour webcast on Science Live! "The Future of Astronomy" – panel discussion with Mario Livio and Phil Platt. See the link at http://www.discovery.com/past/sciencelive/morespace.html

16) October, 1999. Organized press activities for Cosmic Genesis and Fundamental Physics conference, at Sonoma State University. Coverage included two television stations, and several reporters from science magazines. See *Science* **286**, p. 1266 and p. 2060.

17) January, 2000. Assisted in AAS Press activities in Atlanta, including planning and moderating 8 press briefings, including those on the discovery of an isolated black hole, and the nearest black hole. Participated in several media interviews. Quoted in Reuters news article by Deborah Zaborenko entitled "Cosmic Glass Ceiling Limits Women Astronomers" http://www.space.com/people/women_astronomers_000111_wg.html

18) March 22, 2000. Commentator in NASA Space Science Update, a televised press briefing on a new class of unidentified gamma-ray sources.

19) July 21, 2000. Interviewed for article in Press Democrat on North Bay Science Project summer teacher training institute at SSU. Read the archived article at: http://www.newslibrary.com/download.asp?DBLIST=sa00&DOCNUM=9076&TERMV=62233 :4:62237:8:67399:8:

20) Moderated Deep Space Scientists Online Web Chats for NASA Quest, monthly from September, 2000 throughout the academic year.

21) Organized 4 press briefings for AAS High Energy Astrophysics Division meeting held in Honolulu, Hawaii, November 5-10, 2000. See <u>http://perry.sonoma.edu/head2000</u>

22) January 19, 2001. Appeared as part of a panel on Digital West (KQED-TV) discussing the *State of the Skies*. See links at http://dw.kqed.org/archives.html#47

23) April 4-6, 2001. Press Officer for Gamma 2001 Symposium, organized four press briefings. See <u>http://perry.sonoma.edu/gamma2001</u>

24) June 3-7, 2001. Deputy press officer for AAS Summer meeting in Pasadena, CA. Appeared on NPR's Talk of the Nation/Science Friday on 6/8/01. Hear it at: http://search.npr.org/cf/cmn/cmnpd01fm.cfm?PrgDate=06/08/2001&PrgID=5

25) Author of article "Living Science Fiction: Black Holes, Exploding Stars and Distant Galaxies", which appeared in Sonoma County Women's Voices newspaper (June/July 2001)

26) September 5–6, 2001: Press officer for Chandra Science Symposium. Organized 2 press briefings, and moderated NASA Television broadcast of the discovery of X-ray flares from our Galactic Center.

27) October 9 - 13, 2001: Provided several radio and print media interviews regarding biological weapons and anthrax.

28) January 6–10, 2002: Moderated five press briefings at the AAS Winter Meeting in Washington DC, including the Q&A with newly appointed Presidential Science Advisor John Marburger III.

29) April 20-23, 2002: Moderated one press briefing and assisted with two others at HEAD meeting in Albuquerque, NM.

30) January 4-8, 2003: Acting Press Officer for the American Astronomical Society at the AAS Winter Meeting in Seattle, WA. Moderated 6 press briefings. Provided radio interview with station in San Antonio, TX regarding the "speed of gravity"

31) May 26-29, 2003: Deputy Press Officer for the American Astronomical Society at the AAS Summer Meeting in Nashville, TN. Moderated 3 press briefings. Provided radio interview with NPR's Science Friday on the highlights of the meeting. Hear it at: http://www.sciencefriday.com/pages/2003/May/hour2_053003.html

32) September 2, 2003: Radio Interview on SciFi Overdrive Program on Gamma-ray Bursts, GLAST and Swift.

33) May 14, 2004: BBC radio interview on Beyond Einstein program, also LA Times interview.

34) May 31 – June 3, 2004: Deputy Press Officer for the American Astronomical Society at the AAS Summer Meeting in Denver, CO. Moderated 6 press briefings.

35) July 22, 2004: Radio interview on NPR's Connections with Dick Gordon, discussing Stephen Hawking's new ideas about black hole information. Hear it at: http://www.theconnection.org/shows/2004/07/20040722 b main.asp

36) January 12, 2005 - Cover story "Black Hole Beacons" in North Bay Bohemian (weekly Sonoma County newspaper), also online at: http://www.metroactive.com/papers/sonoma/01.12.05/blackholes-0502.html

37) April 17, 2005 - Press Democrat feature article "Explaining The Universe: SSU Professor Lynn Cominsky's Life Work Is To Try To Understand The Mysteries Of Space" also online at: http://www.phys-astro.sonoma.edu/news/CominskyPD20050417.pdf

38) June 11, 2005 - Static Limit one hour radio interview on KUSF with David Reffkin.

39) November 29, 2005 – Organized press activities for "Gamma-ray Bursts in the Swift Era" symposium, held in Washington DC.

40) January 8-12, 2006 – Deputy Press Officer for American Astronomical Society at the AAS Winter meeting in Washington, DC. Moderated 6 press briefings.

41) February 1, 2006 – quoted in two articles about premiere of planetarium show "Black Holes: the Other Side of Infinity" – Denver Post <u>http://www.denverpost.com/search/ci_3462638</u> and Rocky Mountain News http://www.rockymountainnews.com/drmn/local/article/0,1299,DRMN 15 4431713,00.html

42) January 4-7, 2007 Deputy Press Officer for American Astronomical Society at the AAS Winter meeting in Seattle, WA. Moderated 4 press briefings, was interviewed by local television.

43) Feb. 4-7, 2007 Press Officer for GLAST Science Symposium. Organized and moderated two press conferences.

43) May 27-30, 2007 Deputy Press Officer for American Astronomical Society at the AAS Summer meeting in Honolulu, Hawaii. Moderated 3 press briefings and helped organize press tour.

44) September 19, 2007 GLAST Media Day at NASA/Goddard Space Flight Center. Organized, rehearsed and moderated panel that presented to 16 reporters.

45) January 7-11, 2008 Deputy Press Officer for American Astronomical Society at the AAS Winter meeting in Austin, Texas. Moderated 4 press briefings.

46) May 5-14, 2008 Acting AAS Press Officer while Maran was out of the country. Helped organize activities at St. Louis Summer meering.

47) June 1-12, 2008. GLAST Press Officer for launch. Helped organize pre-launch briefings, and also appeared on camera for Orlando television stations. Was quoted in several news articles.

48) January 4-9, 2009. Helped organize two press conferences for American Astronomical Society meeting reporting results from Swift and Fermi.

49) June 2009. Helped organize a press conference for American Astronomical Society meeting reporting results from Swift.

50) October 30 2009. Helped organized Fermi media telecon from NASA Headquarters reporting first year results.

51) November 4, 2009. Organized press conference at Fermi Science Symposium meeting in DC.

52) January 5, 2010. Helped organize a press conference for American Astronomical Society meeting reporting results from Fermi about millisecond pulsars.

53) February 15, 2010. Helped organize a press conference for American Physical Society meeting reporting results from Fermi about supernova remnants.

54) March 2, 2010. Helped organize a press conference for High Energy Astrophysics Division meeting reporting results from Fermi about extragalactic background.

55) March, 2010. Book Review for Physics Today of "Gamma-Ray Bursts: The Brightest Explosions in the Universe" by Gilbert Vedrenne and Jean-Luc Atteia

56) November, 2010. Helped organize a NASA media telecon: Fermi's discovery of "Giant Gamma-ray Bubbles near the center of our Galaxy."

57) January, 2011. Helped organize two press conferences with results from Fermi at the American Astronomical Society meeting in Seattle, WA. Moderated the press conference on "Thunderstorms Hurling Anti-matter into Space."

58) November, 2011. Helped organize NASA Media telecon: Fermi's Discovery of the Newest Millisecond Pulsar."

59) December, 2011. Radio Interview for KRCB Northbay Report. http://krcb.org/201112072405/north-bay-report/lynn-cominsky

60). January, 2012. Helped organize Fermi and NuSTAR press conference at American Astronomical Society meeting in Austin, TX. Fermi press conference was on the 10 GeV sky.

61) April 2012. Helped organize Fermi press conference at the American Physical Society meeting in Atlanta, GA on dwarf galaxy limits for dark matter.

62) November 2012 – Ancient starlight fog press conference at Fermi Symposium in Monterey, CA

63) January 2013. Helped organized Fermi, Swift and NuSTAR press conferences at the American Astronomical Society meeting in Long Beach, CA. Fermi press conference on

64) March 2013. Organized and moderated press conference at the GRB 2013 meeting in Nashville, TN

65) July/August 2013. Article in Sport Rocketry magazine about Small Satellites for Secondary Students by Prof. Lynn Cominsky, Kevin John, Logan Hill and Kevin Zack.

66) December, 2013. Press Democrat interview about SSU's First Satellite, T-LogoQube. <u>http://www.pressdemocrat.com/article/20131210/articles/131219961</u>

67) January 2014. Helped organize Press conference at AAS with Fermi's gravitational lens observation.

68) April, 2014. Press Democrat interview about dark sky locations in Sonoma County http://www.pressdemocrat.com/article/20140421/news/140429934

69) May, 2014. KRCB-radio interview about upcoming lecture about black holes. <u>http://radio.krcb.org/post/peeking-inside-distant-galaxies</u>

70) June, 2014. Comcast Newsmaker interview about Learning by Making program <u>http://comcastnewsmakers.com/video/sonoma-state-university-4/</u>

71) June 2014. AAS Seminar for Science writers about CubeSats. Participated as panelist, discussing educational uses of CubeSats and high-powered rocketry.

72) December 2014. Article for Zonta newsletter and GRL blog on WIA award

73) March 2015. AAAS member spotlight "Five Things About Me: Astronomer Lynn Cominsky" <u>http://membercentral.aaas.org/blogs/member-spotlight/5-things-about-me-astronomer-lynn-cominsky</u>

74) June 2015. North Bay Biz "People You Should Know: Dr. Lynn Cominsky, Furthering Science and Inspiring Young Minds" <u>http://www.northbaybiz.com/General_Articles/General_Articles/People_You_Should_Know_Dr_Lynn_Cominsky.php</u>

75) October 2015, North Bay Business Journal "Napa Valley College receives multiple NASA grants" L. Cominsky interviewed and quoted.

http://www.northbaybusinessjournal.com/northbay/napacounty/4580861-181/napa-valleycollege-receives-multiple#biTPOVgx3tZMBYSS.99

76) October 2015, Press Democrat "SSU's High Energy Professor"(print title) or "Sonoma State astrophysicist outlines her 'high energy life' (online title) <u>http://www.pressdemocrat.com/lifestyle/4611430-181/sonoma-state-astrophysicist-outlines-her?page=1</u>

77) November 2015. Organized and moderated press conference for Sixth International Fermi Symposium about the first extragalactic gamma-ray only pulsar, held 11/12/15.

78) January 2016: "Cominsky Receives \$20,000 Wang Family Excellence Award" <u>http://www.sonoma.edu/newscenter/2016/01/cominsky-receives-20000-wang-family-excellence-award.html</u>

79) February 2016. "Lynn Cominsky Receives Wang Family Excellence Award http://www.sonoma.edu/workplace/2016/02/02/wang.html

80) February 2016. "Gravitational Waves Detected 100 Years after Einstein's Prediction" <u>http://www.sonoma.edu/newscenter/2016/02/gravitational-waves-detected-100-years-after-einsteins-prediction.html</u>

81) March 2016. "Cominsky Honored by State for Work on Gravitational Waves Discovery" <u>www.sonoma.edu/workplace/2016/03/15/cominsky.html</u>. This story was chosen as one of SSU's top ten stories for 2016 <u>http://www.sonoma.edu/newscenter/2016/12/top-10-ssu-news-stories-of-2016.html</u>

82) May 2016. "Another Tiny Satellite: NASA Awards Sonoma State \$200,000 for Tiny Satellite Measuring Earth's Ecosystems" <u>http://news.sonoma.edu/article/another-tiny-satellite</u>

83) July 2016. "Drones and Rockets: New Program Trains Community College Teachers on Drones and Rockets" <u>http://news.sonoma.edu/article/drones-and-rockets</u>

84) December 2016. "Makerspace Comes to Library: New Maker Program and Makerspace Coming to SSU Thanks to \$580,000 NSF Grant" <u>http://news.sonoma.edu/article/makerspace-comes-library</u>

85) October 2017 "Making the Future: New Makerspace Opens in University Library" <u>http://news.sonoma.edu/article/making-future</u>

86) October 2018 – organized and moderated press conference at 8th International Fermi Symposium: A) Blazar's Brightness Cycle Confirmed by NASA's Fermi Mission and B) NASA's Fermi Mission Energizes the Sky with Gamma-ray Constellations.

87) December 2019 – EdgeCube launch publicity including Press Democrat article <u>https://www.pressdemocrat.com/news/10411762-181/spacex-rocket-launch-puts-sonoma</u>, SSU news article <u>http://news.sonoma.edu/article/cube-satellite-built-ssu-students-set-orbit-earth-and-collect-data-vegetation-health</u> and Univision television feature <u>http://uni.vi/OZZJ1023D12</u>.

88) May 2020 – Quoted in Nature magazine article about online conferencing in the age of COVID - <u>https://www.nature.com/articles/d41586-020-01489-0</u>

89) October 2020 – "Extreme Universe of Gamma-ray Astronomy" commissioned article published in Sky & Telescope magazine (see refereed journal articles).

90) February 2021 – "SSU professor secures \$5 million NASA grant to develop new programs for students with autism", article in Press Democrat newspaper https://www.pressdemocrat.com/article/news/ssu-professor-secures-5m-nasa-grant-to-develop-new-programs-for-students-w/

91) September 2023 – "Astronaut Nicole Mann, a Sonoma County native, captivates with tales from space and lessons for life," article in Press Democrat newspaper https://www.pressdemocrat.com/article/news/astronaut-nicole-mann-a-sonoma-county-native-captivates-with-tales-from-s/

TEACHING AND MENTORING ACTIVITIES Courses Taught at Sonoma State University (1986 – present)

Physics 116 – Introductory Laboratory Experience Physics 209A/B and 210A/B – Physics by Inquiry version of General Physics and Laboratory Physics 214 – Introduction to Physics II Physics 216 – Introductory Laboratory Physics 312 and 312L – Elements of Digital Electronics and Laboratory Physics 314 – Introduction to Physics III Physics 325 – Mathematical Physics Physics 375 – Physics for the Nuclear Age Physics 412 and 412L – Microprocessor Applications and Laboratory Physics 425 – Introduction to Mathematical Physics Physics 445 – Theory of Signal Processing Physics 450 – Statistical Physics Physics 494 – What Physicists Do public lecture series Astronomy 305 – Frontiers in Astronomy Astronomy 350 – Cosmology Astronomy 380 – Astrophysics of Stars Education 490/800 – NASA's Multi-wavelength Universe – a two-week online professional development course for teachers sponsored by several different NASA projects and offered through Extended Education for academic or continuing education credit. https://universe.sonoma.edu/cosmo/course/view.php?id=5 *Physics* 495/800 – LIGO: Waves and Gravity – a three week online professional development course for community college and AP high school physics teachers sponsored by NSF grant, and offered through Extended Education for academic or continuing education credit. http://universe.sonoma.edu/cosmo/course/view.php?id=3

Physics 495/800 – LIGO: Detecting Gravitational Waves – an 8 week online online professional development course for community college and AP high school physics teachers sponsored by NSF grant, and offered through Extended Education for academic or continuing education credit. <u>https://universe.sonoma.edu/cosmo/course/view.php?id=6</u>

Science 220: Dream, Make and Innovate- taught the lecture part of the course during AY2018/19.

Physics 100: Descriptive Physics – taught 2/3 of the course due to leave by lecturer.

Activities with High School or College Students

1) "X-ray Astronomy Research", Society of Physics Students lecture, Sonoma State University, September 19, 1986.

2) "Cosmology", lecture for the Hutchins School of Liberal Studies, Sonoma State University, October 6, 1986.

3) "Discovery of X-ray Eclipses from an X-ray Burster", Society of Physics Students lecture, Sonoma State University, December 5, 1986.

4) "How I Finally Learned Physics", lecture for Re-entry Program, Sonoma State University, December 5, 1986.

5) "Strategic Defense Initiative", lecture to Campus Peace Action Coalition, Sonoma State University, October 28, 1987.

6) "SSU Radio Telescope", lecture to Upward Bound high school students, Sonoma State University, July 17, 1988.

7) "X-ray Visions from Space", lecture to high school students at Lawrence Academy through the Women and Mathematics program, Santa Clara, CA, December 15, 1988.

8) "X-ray Astronomy Research", lecture to Society of Physics Students, Sonoma State University, February 14, 1989.

9) "X-ray Visions from Space", lecture to students at El Cerrito High School, through the Women and Mathematics program, El Cerrito, CA, March 9, 1989.

10) "Careers in Physics", lecture to students at Redwood High School, through the Women and Mathematics program, Larkspur, CA, November 16, 1989.

11) "Astronomy Research", lecture to students at Analy High School, through the California State University/High School Research Collaboration, Sebastopol, CA, January 16, 1990.

12) "How I Finally Learned Physics", lecture and discussion at Women's Resource Center, Sonoma State University, April 24, 1990.

13) "X-ray Visions of the Universe", lecture to potential freshman students on Preview Day, Sonoma State University, April 29, 1990.

14) "Professors were once Freshmen too", lecture and panel discussion for Summer Bridge Students, Sonoma State University, August 1, 1990.

15) Judge at St. Barnabas Middle School Science Fair, February 1991.

16) Judge at Healdsburg School District Science Fair, March 1991.

17) Participating Scientist in Science by Mail Program, 1991, 1992

18) Lecture to Upward Bound Students about Careers in Science, Sonoma State University, July 1, 1992.

19) Judge at Healdsburg School District Science Fair, March 24, 1993.

20) Expanding Your Horizons Workshop "Here Comes the Sun", Sonoma State University, March 20, 1993.

21) Panelist, Take Your Daughters to Work Day, Stanford Linear Accelerator Center, April 28, 1994

22) Faculty Mentor to Palo Alto High School Student Martin Flom-Millman, Spring 1994

23) Faculty Mentor to Fresno Central High School Teacher Marc Afifi, Stanford Linear Accelerator Center Summer High School Teachers Institute 1994

24) "Astrophysics at the Stanford Linear Accelerator Center", lecture to the SLAC Summer Science Undergraduate Program, July 27, 1994.

25) Judge at Healdsburg School District Science Fair, March 15, 1995.

26) Activity Group Leader at Take Your Daughters to Work Day, Stanford Linear Accelerator Center, April 27, 1995.

27) "X-ray and Gamma-ray Visions of the Universe", lecture to NOVA high school assembly, Novato, CA, September 2, 1997

28) Westinghouse science project advisor to Sommerfield-Waldorf High School student Daniel Mazeau, Fall, 1997

29) "X-ray and Gamma-ray Visions of the Universe", lecture to students at St. Vincent's High School, Petaluma, CA, December 11, 1997.

30) Judge at Healdsburg School District Science Fair, March 11, 1998.

31) "GLAST, the Gamma-ray Large Area Space Telescope", lecture to students from Willits High School, April 30, 1998.

32) "GLAST, the Gamma-ray Large Area Space Telescope", lecture to students in Physics 482, November 30, 1998.

33) "Gamma-ray Astronomy", lecture to students in Physics 482, November 27, 2000

34) Supervised volunteer work by Dakota Decker, Fall 2003 - Spring 2004

35) Expanding Your Horizons workshop - April 2004

36) Judge at Sonoma County Office of Education Science Fair - May 2004

37) "You Are Here" mini-course at Roseland University Prep, May 2005

38) "After the Big Bang" lecture to Hutchins students, September 23, 2005

39) Roseland University Prep student field trip to SSU Pepperwood Observatory, January 20, 2006

- 40) Expanding Your Horizons Workshop April 2006
- 41) Cosmology lecture to Hutchins Students, October 13, 2006
- 42) Roseland University Prep career Day, May 2007
- 43) Roseland University Prep Summer Experience, August 2007
- 44) Expanding your Horizons Workshop April 2008
- 45) Roseland University Prep portfolio Day, May 2008
- 46) Roseland University Prep Summer Experience, June 2008
- 47) Expanding Your Horizons workshops March 2010
- 48) Mini-Maker's Faire March 2011
- 49) Roseland University Prep portfolio Day, May 2011
- 50) Expanding Your Horizons workshops March 2012
- 51) Roseland University Prep portfolio Day, May 2012
- 52) Expanding Your Horizons workshops April 2014

53) Advisory Committee, Deer Valley High School, Robotics Engineering Pathway Development – 2014 – 2016

54) Partnerships with four autism-serving high schools for the N3 project: Oak Hill, Orion Academy, Stanbridge Academy, Anova - 2021 - 2025

Supervised Student Research Awards

1) Francis Moraes, "Geometric Modeling of X-ray Pulsations", SSU Sigma Xi Undergraduate Research Award, May 30, 1990. (\$200)

2) Holly Jessop, "Optical Monitoring of an Important X-ray Binary Pulsar at the Sonoma State University", Sonoma State University Pre-pre-doctoral Award, Spring 1991. (\$200)

3) Holly Jessop, SSU Associate Students award for presentation of paper at the AAVSO Meeting, "Updated Periods for CG and GY Coma Berenices", Spring 1991. (\$100)

4) Holly Jessop, California State University Pre-doctoral Fellowship, August, 1991. (\$3000)

5) Holly Jessop, "CCD Photometry of BY Cam", National Sigma Xi Grant-in-Aid Research Award, 1991. (\$500)

6) Holly Jessop, California State University Summer Fellowship, 1992. (\$1500)

7) Greg Sprehn, "The Sonoma State University Very Small Array", SSU Sigma Xi Undergraduate Research Award, May 18, 1992. (\$100)

8) Greg Sprehn, National Science Foundation Research Experiences for Undergraduates/American Astronomical Society Award, "Tracking Observations using the Sonoma State University Very Small Array", August 1992. (\$4470)

9) Daniel Mazeau, Sommerfield-Waldorf High School student, Westinghouse Science Talent Search Semi-finalist, "Constraints on Super-symmetric Models of Dark Matter from High Energy Gamma-ray Observations", January, 1998.

10) Kevin Zack - Steven Chu award at Far West Annual Meeting, Nov. 2013

11) Kevin Zack – Sigma Pi Sigma Research Award (\$2000) for "Ground Station for Small Satellites" Spring 2014.

12) Kevin Zack - second place in SST Science Symposium, May 2014

13) Anna McCowan, Amandeep Gill and Alyssa Afa'ese - \$600 in IRA funding for the development of "A³Sat: All Women CubeSat payload development" October 2014

14) Demitri Call – Green Music Center Academic Integration Fund - "Microbial Fuel Cells for the Classroom", \$1500, May 2015

15) Claire Shudde, Demitri Call and Michael Schwartz – Provost Undergraduate Research SOURCE award "CubeSat Development" \$1000, Spring 2016

16) David House, Arturo Ramos, Jorge Bautista, Victoria Yrigollen/Yiting Hsieh – Koret Foundation Award, \$8000, Fall 2016

Supervised Student Research Talks

1) Daniel Nottingham, "Evolution of the Sonoma State University Radio Telescope", May 2, 1987, at the Association of North Bay Scientists annual meeting.

2) M. Richard Mayer, "Data Acquisition System for the SSU Radio Telescope", May 2, 1987, at the Association of North Bay Scientists annual meeting.

3) Daniel Nottingham, "SSU Radio Telescope", July 1987 at the Astronomical Society of the Pacific meeting at Pomona College.

4) Francis Moraes, "Geometric Modeling of X-ray Pulsations", April 29, 1989 at the Association of North Bay Scientists annual meeting.

5) Joan Ghiglieri, "SSU Radio Interferometer", April 29, 1989 at the Association of North Bay Scientists annual meeting.

6) Francis Moraes, "Geometric Modeling of X-ray Pulsations", May 5, 1990 at the California State University Undergraduate Research Competition.

7) Ildgoz Modeer, "The Sonoma State University Radio Interferometer", November 3, 1990 at the Northern California Section of the Society of Physics Students Conference.

8) Holly Jessop, "Revision and Update for V1176 Sagittarii", March, 1991 at the Association of North Bay Scientists Annual meeting.

9) Greg Sprehn, "The Sonoma State University Very Small Array", November 4, 1991 in the What Physicists Do public lecture series at Sonoma State University

10) G. Sprehn and L. Cominsky, "The Sonoma State University Very Small Array", presented at the 179th meeting of the American Astronomical Society, *Bulletin of the American Astronomical Society*, **23**, 1451 (1991).

11) Holly Jessop, "A Revision and Update for the Period of V1176 Sagittarii", presented at the 179th meeting of the American Astronomical Society, *Bulletin of the American Astronomical Society*, **23**, 1379 (1991).

12) Greg Sprehn, "The Sonoma State University Very Small Array", presented at the California State University Research Competition, May, 1992.

13) Greg Sprehn,"The Sonoma State University Very Small Array", an invited lecture to the Stockton Astronomical Society, July 8, 1992.

14) G. Sprehn and L. Cominsky, "The Very Small Array Radio Telescope", presented at the Undergraduate Research Poster Session of the Sigma Xi National Meeting, held in San Francisco, February 25, 1993.

15) G. Sprehn, B. Owen and L. Cominsky, "Motorization and Control of the Sonoma State University Very Small Array", presented at the 182nd meeting of the American Astronomical Society, *Bulletin of the American Astronomical Society*, **25**, 810 (1993).

16) M. Roberts, L. Cominsky, and M. Finger, "An April 1991 Outburst from 4U0115+63 Observed by BATSE", presented at the 182nd meeting of the American Astronomical Society, *Bulletin of the American Astronomical Society*, **25**, 911 (1993).

17) M. Roberts, "X-ray Outbursts from Neutron Stars in Binary Systems", April 18, 1994 in the *What Physicists Do* public lecture series at Sonoma State University.

18) M. Roberts, N. Owen, G. Spear, L. Cominsky, "The Very Small Array Sky Survey", presented at the 184th meeting of the American Astronomical Society, *Bulletin of the American Astronomical Society*, **26**, 859 (1994)

19) Kevin Zack, J. Garrett Jernigan and Lynn Cominsky – "The Development of a 3P PocketQube" presented at the Far West sectional meeting of the American Physical Society, <u>http://meetings.aps.org/Meeting/CAL13/Session/H4.8</u> (2013)

20) Kevin Zack - "Satellites at SSU" SST Science Symposium, May 2014

21) Amandeep Gill, Kevin Zack, Hunter Mills, Ben Cunningham, & Stephan Jackowski, "Undergraduate Skills Laboratories at Sonoma State University" American Astronomical Society, AAS Meeting #223, #160.02 2014AAS...22316002G

22) Casey Lewiston "Rising Data" SST Science Symposium, May 2017

23) Shannon Lessard "Dream, Make and Innovate: SST Science Symposium, May 2019

Supervised Senior Design Projects in Applied Physics (Physics 493)

- 1) Daniel Wilcox, Programmable Robot (1987).
- 2) David Marshall, Computer Controlled Greenhouse Environment (1987).
- 3) Daniel Nottingham, Motorized Drives for the SSU Radio Interferometer Telescope (1987).
- 4) Phillipe Argouarch, Radiation Hazard Monitoring with a Microcomputer (1988).
- 5) Michael McClendon, Photographic Enhancement through Unsharp Masking (1988).
- 6) Nancy Kunnari, Light Harp (1989).
- 7) Francis Moraes, Digital Determination of Muon Lifetime (1990).
- 8) Gregory Davis, Fiberoptics Laser Interference Detection (1990).
- 9) Marie-Christine Raude, Interferometric Measurement of Thermal Expansion (1990).
- 10) Jason Alexander, Turbo-Jet Engine (1991).
- 11) Tina Rosenberg, Diode Array Spectrophotometer (1992).
- 12) Nicko Melville, Regenerative Braking (1992).
- 13) Mark Lenhart, Digi-talk (1993).

- 14) Alon Katz, Heliostat (1993).
- 15) Greg Sprehn, Motorization of the Very Small Array (1993).
- 16) Cherie Copeland, Voice Control of a Robot Arm (1995).
- 17) Paul Bauer, Remote Infrared Multiplexed Controller (1995)
- 18) Scott Demorest, Heliostat (1997)
- 19) Kevin Zack, Satellites at SSU (2014)

Supervised Special Studies, Undergraduate Research or Instructional Design Projects (Physics or Astronomy / 492, 495 or 497)

- 1) Daniel Nottingham, Radio Telescope Alignment and Sun Acquisition (1986)
- 2) Philip Cullen, 13 inch Newtonian Telescope (1986)
- 3) Robin Scheppes, Massive X-ray Binaries (1986)
- 4) Mark Feldman, Bird Call Signal Processing (1988)
- 5) Joan Ghiglieri, Radio Telescope Receiver (1989)
- 6) Stephen Wallace, Motors for the Radio Telescope (1989)
- 7) Francis Moraes, Neutron Star Pulsar Beam Modeling (1990)
- 8) Fausto Morales, Numerical Astrophysics Diffusion Modeling (1990)
- 9) Mak Rusli, Microprocessor Applications using FORTH (1990)
- 10) Greg Sprehn, Radio Telescope and Heliostat Observations (1990)
- 11) Ildgoz Modeer, Detection of Interference from Radio Telescope (1990)
- 12) Andrew Peri, Weapons Proliferation in the Third World (1990)
- 13) Greg Sprehn, Radio Telescope (1991)
- 14) Mark Robinson, Music Signal Processing using the Motorola DSP 56000 (1991)
- 15) Greg Sprehn, Radio Telescope (1992)
- 16) Daniel Hale, Susan Webster and Siana Hurwitt, Astronomy Data Analysis (1995)

- 17) Amy Weber, Physics by Inquiry (1995)
- 18) John Hayes, Astronomical Data Analysis (1997)
- 19) Hank Carter, Scott Demorest and Barnell Hampton, Microprocessor Applications (1997)
- 20) Dan Goldman, Dan Hogan and Al Witten, Astronomical Data Analysis (1998)
- 21) Tim Graves, Astronomical Data Analysis (1999)
- 22) J. Scott Berry, Radio Telescope (1999)
- 23) Marsha Barrows, Gamma-rays from Solar Flares (2000)
- 24) Cristhyan Alfaro, Standard Model of Particle Physics (2012)
- 25) Kevin Zack Ion Engine Design (2012)
- 26) Ben Cunningham, Ion Engines (2012)
- 27) Kevin Zack, T-LogoQube (2013)
- 28) Aaron Owen, CubeSat (2014)
- 29) Aman Gill (2014) A3Sat
- 30) Anna McCowan (2014) A3Sat
- 31) Maxfield Torke (2014) Torquing TRL6 Satellite
- 32) Maxfield Torke, (2015) TRL6 Satellite Magnetic Torquing system
- 33) Aman Gill (2015) A3Sat Prototype development
- 34) Wes Watson (2015) CubeSat Power System
- 35) Demitri Call (2015) Lunar Orbit Simulation
- 36) Sean Wayland (2017) Classical Tests of General Relativity
- 37) Casey Lewiston (2017) Rising Data
- 38) Ryan Brown (2018) LIGO Course Materials Development
- 39) Shannon Lessard (2018) Dream, Make and Innovate

- 40) Earl Powell (2018) General Relativity
- 41) Jorge Bautista (2019) Star Camera for EdgeCube
- 42) Courtney McNatt (2020) Developing a High School STEM Curriculum
- 43) Jesse Nelson (2020-2021) Multi-messenger Astrophysics Master Class
- 44) Alex Vasquez (2021) Particle Sensor for CubeSat
- 45) Meghan Miller (2021) Dome to Home show
- 46) Zoie Bean (2022) Accessibility in STEM for N3
- 47) Katie Toman (2023) Heliophysics Activity Codesign for N3
- 48) Emily Uhrich (2024) Revising Learning by Making for Eighth Grade