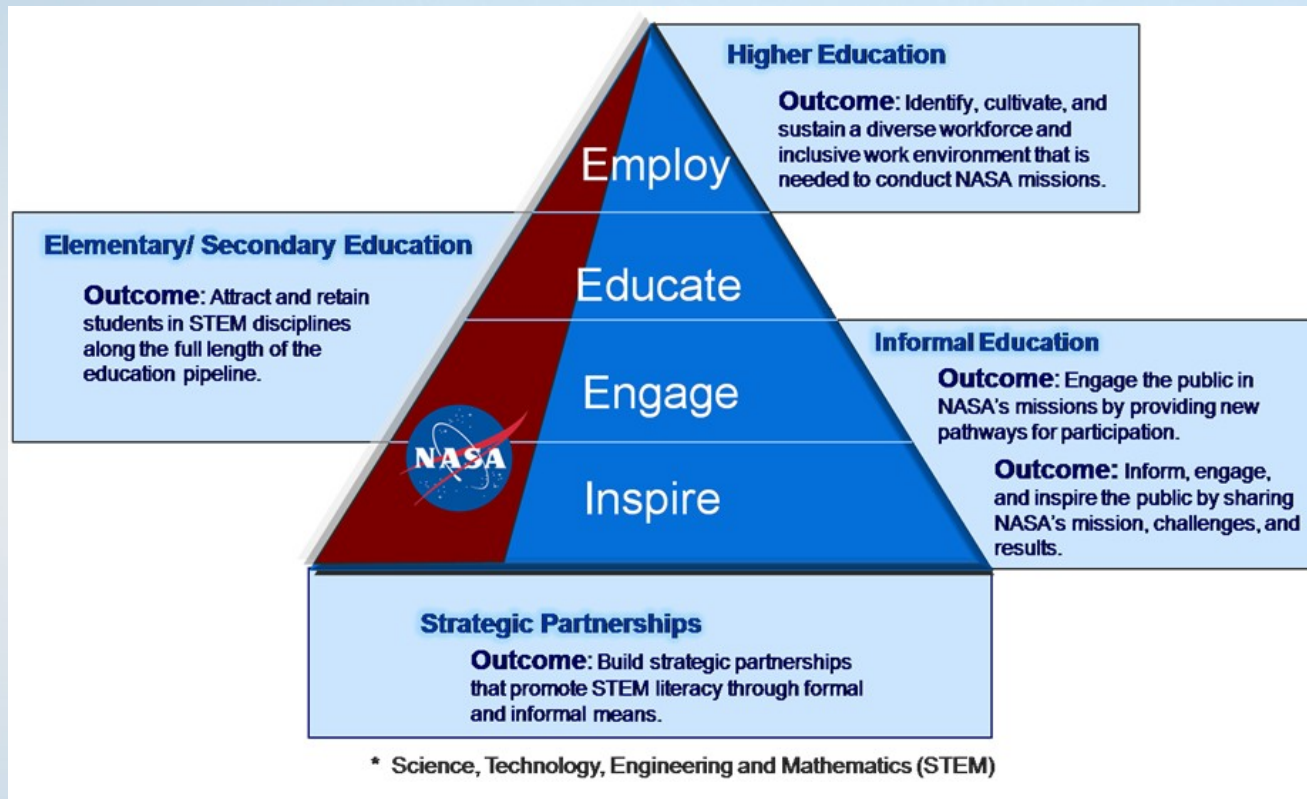


Education and Public Outreach Program Update Fermi User's Group 6/16/11

Prof. Lynn Cominsky
Sonoma State University

NASA Education Framework – new!



- Blue area is for strategic partners such as SSU E/PO

Red area is designated recommendations for NASA Center Education offices and Office of Education

E/PO group News

- E/PO plan for FY11-13 is now approved and signed by HQ
 - This was a major effort – plan is 45 pages long
 - I will send it to anyone on the FUG that would like to read it
- Due to impending funding cutbacks by other SSU missions (not Fermi), I have had to layoff all (four of) the part-time consultants as well as Logan Hill

Epo's Chronicles

- Continues weekly
- 2011 Calendars were made from IYA “episodes” – were be distributed at AAS
- In 2011 we are doing special “episodes” about Cosmology
- Now approved by NASA Product Review! And (soon to be) linked from HQ Kids’ Page (if not already)



Alkina



Epo

Cosmology Course Development underway

- Still working with lawyers to try to get a contract signed with Great River Technologies (Kendall Hunt) – our original partner in the proposal, prior to the (now 1.5 year long delay due to the state-mandated RFP process)
- Meanwhile, development continues – we have 3 chapters ready for the publisher and are mid-way through chapter 4.
- Work should speed up this summer

Multiwavelength Professional Development

- SSU is hosting a two-week professional development course for educators: *NASA's Multiwavelength Universe* during July 11-22
- Cominsky is instructor of record
- This is an Astrophysics-division wide collaboration, facilitated by the Forum (STScI)
 - Fermi, Swift, XMM-Newton, NuSTAR (SSU)
 - SOFIA, Kepler, (SETI Institute)
 - WISE (UCB CSE)
 - WMAP (Adler)

Multiwavelength Course Flyer at NSTA



The flyer features a vibrant, multi-colored nebula in shades of blue, yellow, orange, and red against a dark starry background. A central blue, teardrop-shaped object is highlighted. The NASA logo is in the top right corner.

July 11-22, 2011

Online Professional Development for Educators

**NASA's
Multiwavelength Universe**

Explore NASA resources in a combination of online synchronous and asynchronous formats to understand how astronomers use their knowledge of light to investigate the universe.

1 Credit for EDUC 490 or 1.5 Continuing Education Credits through Sonoma State University

For more information and to register, go to:
<http://epo.sonoma.edu/multiu.php>

Multiwavelength Course

- <http://epo.sonoma.edu/multiu.php> - for information and to register
- Uses many of the Flash assets we developed for Cosmo Course Chapter 2
- Will be limited to 25 teachers
 - Some are taking for Continuing Education Credit
 - Others are taking for Academic Credit
 - Approved by SSU's Department of Education
- **Course Moodle login at:**
<http://universe.sonoma.edu/cosmo/login/index.php>

Intro Page

Sonoma State University Education and Public Outreach

You are logged in as Lynn Cominsky (Logout)

Main menu

 Site news

Navigation

Home

▫ My home

▼ Site pages

▫ Participants


▫ Blogs


▫ Notes

▫ Tags

▸ Reports

 Site news

 Creating a Moodle Account

 WebEx Tutorial


 Welcome Letter


▸ My profile

▸ My courses

Settings

▼ Front page settings

 Turn editing on




 Edit settings

▸ Users

NASA's Multiwavelength Universe

Online Professional Development for Educators

[Read Me](#)

-  [Creating a Moodle Account](#)
-  [WebEx Tutorial](#)
-  [Welcome Letter](#)

Site news

[Unsubscribe from this forum](#)

[Add a new topic](#)



NASA's Multiwavelength Universe course starts July 11

by [Lynn Cominsky](#) - Tuesday, 14 June 2011, 01:50 PM

Our first session will begin at 1 PM EDT (10 AM PDT) on Monday July 11.

Please make sure you have created your Moodle login account. If not, see [instructions](#) for further information. Once you have created your login account, you can click on the course listing below to enter the [course Moodle site](#).

[Edit](#) | [Delete](#)

[Discuss this topic \(0 replies, 0 posts\)](#)


Online Professional Development for Educators
July 11-22, 2011

One (1) Credit for EDUC 490 or 1.5 Continuing Education Credits through Sonoma State University. To register, download this [form](#).

Calendar

June 2011						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Upcoming events

 **Session 1 - Welcome to NASA's Multiwavelength Universe!**

Monday, 11 July, 01:00 PM
» 02:00 PM

Course First Page

NASA's Multiwavelength Universe

You are logged in as Lynn Cominsky (Logout)

Home ▶ My courses ▶ NASA's Multiwavelength Universe

Turn editing on

Navigation

Home

- My home
- ▶ Site pages
- ▶ My profile
- ▼ My courses
 - ▼ **NASA's Multiwavelength Universe**
 - ▶ Participants
 - ▶ Reports
 - ▶ General
 - ▶ ...length Universe! - Mon July 11 1 pm ET (10 am PT)
 - ▶ The Electromagnetic Spectrum
 - ▶ Exploring What Our Students Think
 - ▶ ...nd Detectors - Friday July 15 11 AM EDT (8 AM PDT)
 - ▶ ...lectromagnetic Spectrum to Understand Our Universe
 - ▶ Working With Astronomical Images

Topic outline

NASA's Multiwavelength Universe

Online Professional Development for Educators

-  News and Announcements.
-  Files for Review
-  Moodle Q&A
-  Help Forum

1 Welcome to NASA's Multiwavelength Universe! - Mon July 11 1 pm ET (10 am PT)

This 1 hour LIVE session will be held on Monday July 11 at 1 pm Eastern / 12 pm Central / 11 am Mountain / 10 am Pacific

Session Overview: Instructors and participants will meet synchronously to:

- discuss course objectives
- explore our virtual online learning environment
- share instructor and participant backgrounds
- review participation and course requirements.


Our time together will include an engagement activity that you can do in your classroom: "What's Getting Through?"

Before the session, you should:

Read the following materials:

- introductory letter

Search forums

Advanced search 


Latest news

Add a new topic...


Lynn Cominsky 14 Jun, 13:31
Welcome to the Multi-wavelength Course Moodle Site more...

Older topics ...


Upcoming events

 **Session 1 - Welcome to NASA's Multiwavelength Universe!**

Monday, 11 July, 01:00 PM
» 02:00 PM

 **Session 4 - What's Getting Through - Real Time Web Conference**

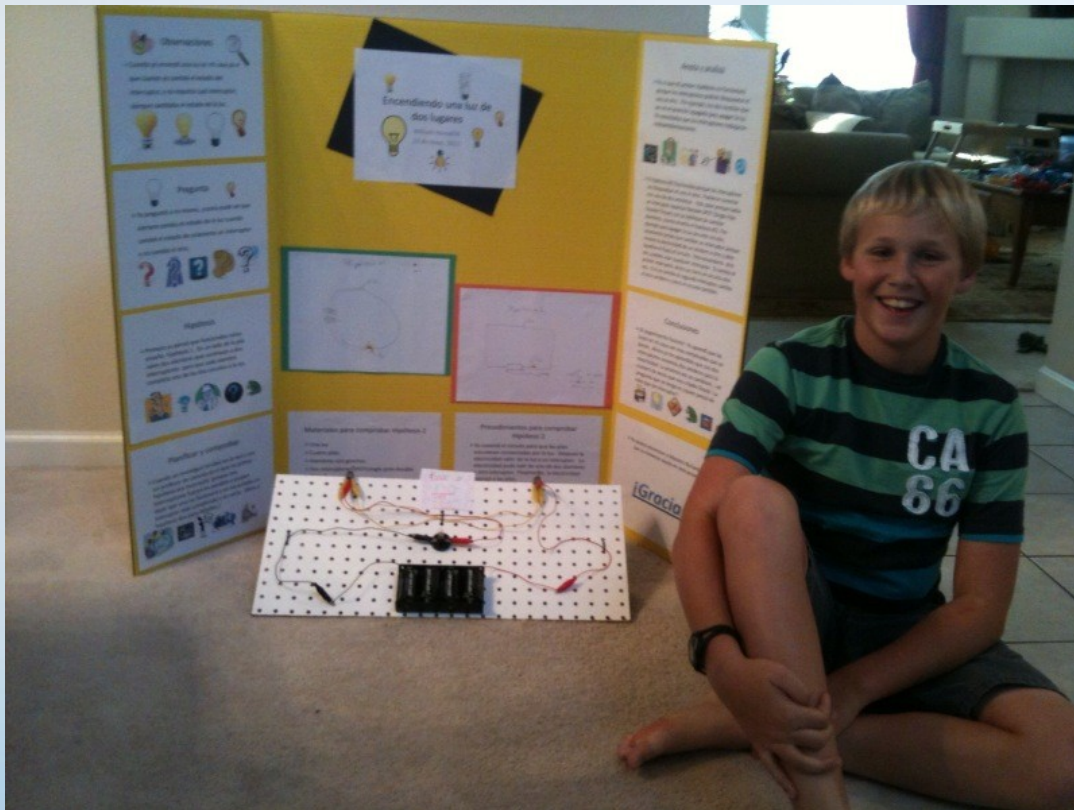
Friday, 15 July, 12:00 AM
» 01:30 AM

 **Session 7 - Observing with NASA - Real Time Web Conference**

Tuesday, 19 July, 12:00 AM
» 02:00 AM

After-school clubs

- SSU clubs finished the year with a tour of SSU by kids from Cali Calmecac



Cali student
Richard with his
prize-winning
science fair project
(in Spanish!)

Make Your Own Pulsar at the Mini-Maker Faire

April 2, 2011

Sonoma State University E/PO sponsored a booth at Sonoma County's "Mini-Maker Faire" held on the Sonoma Country Day school campus.



The Maker Faire concept was started by local hi-tech company O'Reilly Media. This "Mini-Maker Faire" concentrated on bringing the Maker Do-it-Yourself culture to children.

Maker Faire

Our booth featured the activity "Make Your Own Pulsar." This approved activity is part of both the Supernova Educator's Guide and also appears on the back of the Fermi satellite lithograph.

<http://fermi.sonoma.edu/teachers/FermiLitho09pt.pdf>

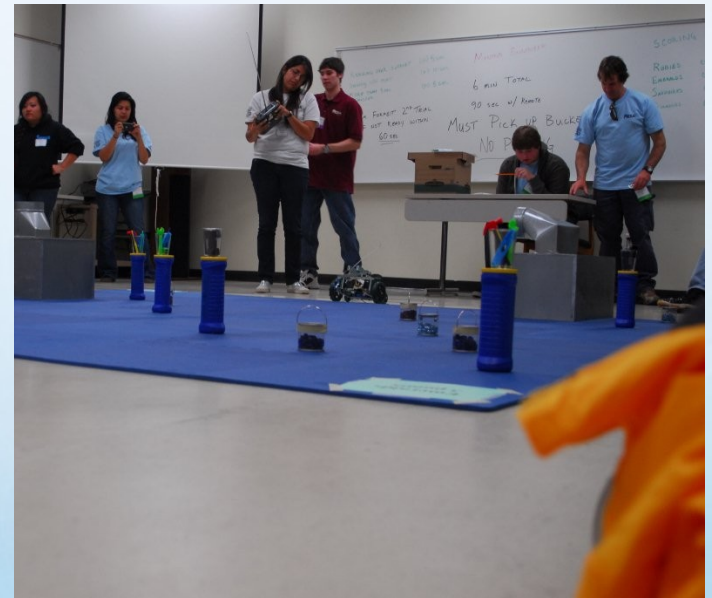
About 100 children made pulsars from 2 LEDs, a battery, some string and some modeling clay.



Lynn Cominsky
lynnc@universe.sonoma.edu
<http://epo.sonoma.edu>

Other kids events

- MESA Day at SSU – Kamal Prasad helped to coordinate this event which brought over 700 local kids to campus to compete in STEM challenges (April 30, 2011)



Other kids events

- Latino Family Summit Day at SSU – Kathy Morrison and Richard Klein did workshops with over 100 6-8th graders (3/26/11)
- Kathy also did Expanding Your Horizons 4/2/11



Other SSU Workshops & Talks

- Fermi-content talks by Cominsky:
 - University of San Francisco – 2/9/11
 - Sonoma County Amateur Astronomers – 2/9/11
 - APS April Meeting – Cosmology course – 4/2/11
 - Petaluma Historical Museum BEYOND exhibition – 6/11/11
 - No Name Womens' Group 6/15/11
- Fermi-related talks by Kevin McLin
 - Petaluma Museum – 4/22/11
 - Telescopes from Afar Conference – 3/7/11 “Using Robotic Telescopes to Teach STEM Skills: Undergraduates and High School Students”

Conference Presentations since 12/10

- “Investigating Student Understanding of the Universe: Perceptions of Astronomical Sizes and Distances,” C. Camarillo, K. Coble, V. Hayes, M. Nickerson, G. Cochran, J. Bailey, K. McLin, & L. Cominsky, 2011AAS...21833305C
- “Investigating Student Understanding of the Universe: Structure,” V. Hayes, K. Coble, M. Nickerson, G. Cochran, C. Camarillo, J. Bailey, K. McLin & L. Cominsky, 2011AAS...21833304H.
- “Investigating Student Understanding of the Universe: Dark Matter,” M. Nickerson K. Coble,, G. Cochran, V. Hayes, C. Camarillo, J. Bailey, K. McLin & L. Cominsky, 2011AAS...21833302N – **won Chambliss Award!!!**

Conference Presentations since 12/10

- “Investigating Student Understanding of the Universe: Age and Expansion,” K. Coble, G. Cochran, V. Hayes, M. Nickerson,, C. Camarillo, J. Bailey, K. McLin, & L. Cominsky, 2011AAS...21833303C
- “Dark Energy is “Dying” and Other Student Ideas About Cosmology,” J. Bailey, K. Coble, G. Cochran, R. Sanchez, D. Larrieu, V. Hayes, M. Nickerson, L. Cominsky & K. McLin, 2011AAS...21833301B.
- “The Big Ideas in Cosmology: a Curriculum for College Students” K. Coble, K. McLin, A. Metevier, J. Bailey, & L. Cominsky, 2011AAS...21821507C

Conference Presentations since 12/10

- “Using Telescopic Observations to Explore the Science of AGN with High School Students,” K. McLin & L. Cominsky, 2010AGUFMED53A0528M
- “Using the Big Ideas in Cosmology to Teach College Students,” L. Cominsky, K. McLin, K. Coble, J. Bailey & A. Metevier, BAPS.2011.APR.R12.4
- “Using Telescopic Observations to Mentor High School Students in STEM,” K. McLin, Poster at Telescopes From Afar Conference, March 2011.
- NSTA nationals in San Francisco – we took the booth and handed out many Fermi models, card games.

Global Telescope Network 6/11

- We now have 38 members in the GTN (up from 25)
- We have five high school students this summer (three are volunteers) who will be working on analyzing telescope data from GORT and other GTN facilities (PROMPT in Chile)
- We are adding 20 new AGN to our list for monitoring in part to support an HST proposal for which McLin is a Co-I: “Probing Weak Intergalactic Absorption with Flaring Blazar Spectra” (J. Stocke,



E/PO Summer Interns - 2011

- HS Volunteers working on GTN observations



Anna Aaronson



Adrian Chan



Jacob Gollub

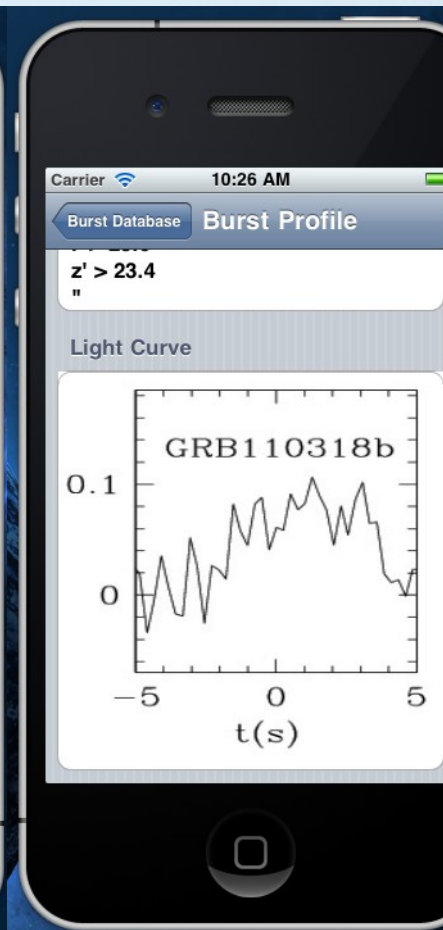
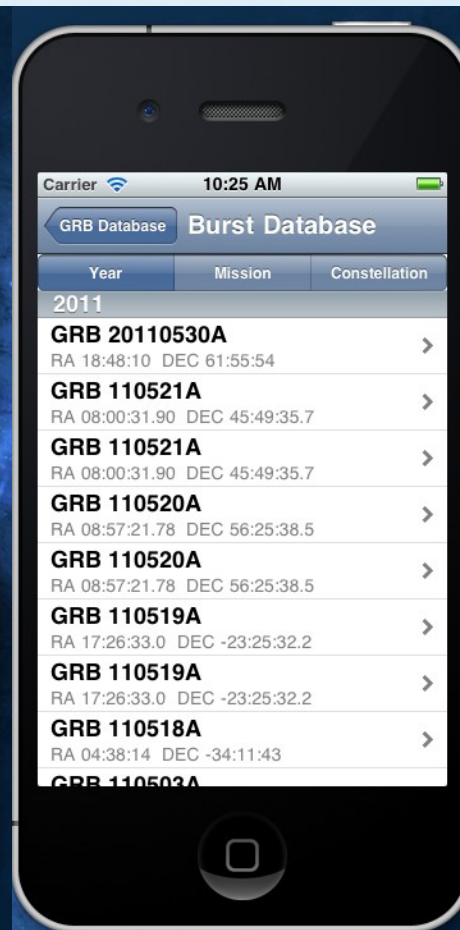
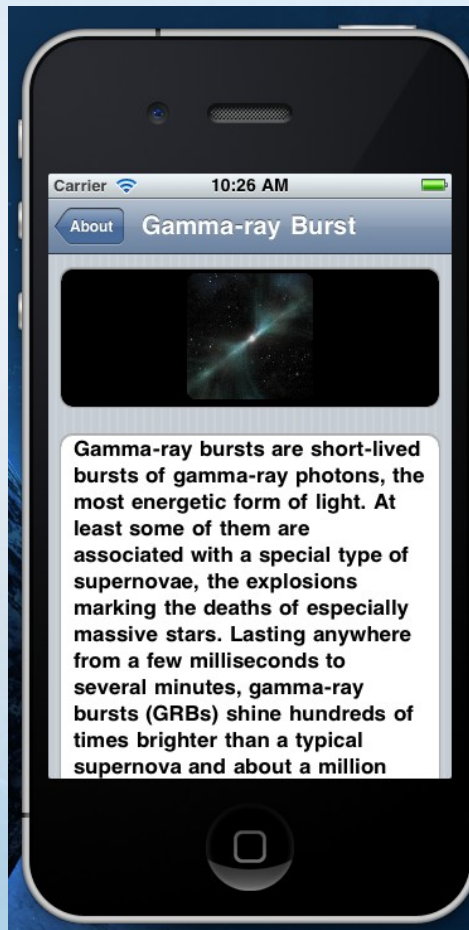
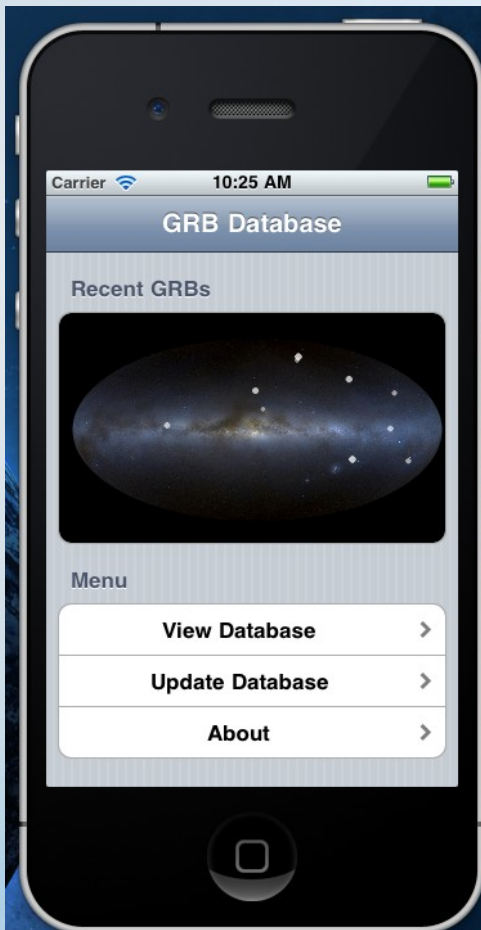
E/PO Summer Interns - 2011

- Dillon Jackson
- Sponsored by SCOE to work on GTN observations
- Dominic Nicholson
- Working on Flash development



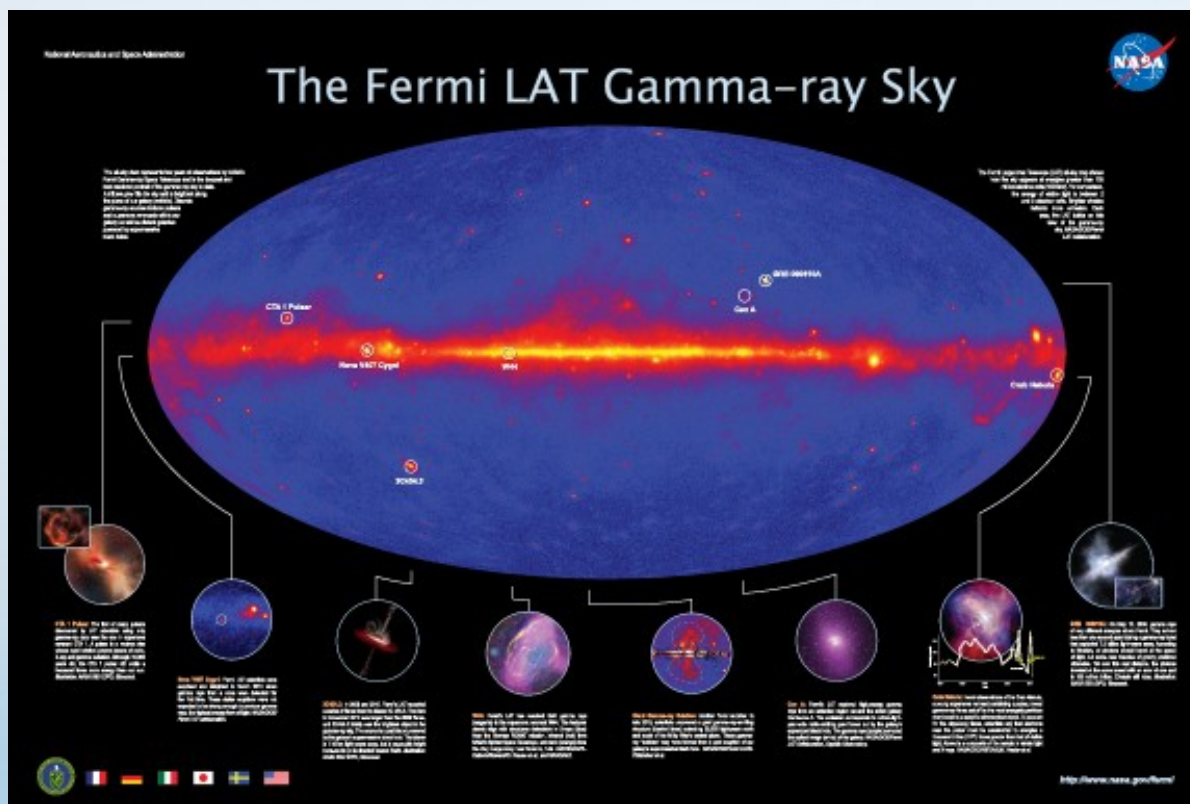
GRB Skymap News

- Website approved by NASA Product Review
- iPhone app in Alpha Testing – beta volunteers?



Fermi All-sky Poster

- Designed by Aurore Simonnet
- Debuted at Fermi Symposium in Rome



Next E/PO Plans

- New litho set featuring first sky map and discoveries for each type of object – not yet
- *AER publications in progress: Cosmology Understanding, Educator Ambassador program, Black Hole show audience learning*

PR Update

Press releases and web features since last FUG (11/10):

- 11/9/10: NASA's Fermi Telescope Finds Giant Structure in our Galaxy – NASA media telecon – YouTube video was a big hit
- 1/10/11: NASA's Fermi Catches Thunderstorms Hurling Antimatter into Space – press conference at AAS moderated by LRC – YouTube video was even bigger hit
- 1/12/11: NASA Satellites Find High-Energy Surprises in 'Constant' Crab Nebula – press conference at AAS

PR Update

Press releases and web features since last FUG (11/10):

- 5/11/11: NASA's Fermi Spots 'Superflares' in the Crab Nebula
- 5/20/11: Radio Telescopes Capture Best-Ever Snapshot of Black Hole Jets – more than 180,000 YouTube hits in 3 days! Plus an additional 100K hits on GSFC and other sites
- Press at the Fermi Symposium
 - We did not do any organized press conferences
 - Several reporters attended and wrote stories, including Jason Palmer from BBC who is still trying to follow up on catalog story.

Future PR projects

- Millisecond pulsar in Globular Cluster – awaiting Science paper acceptance
- PSR 1259-63 – delaying ApJ online publication so we can get out a press release