



Gamma-ray Science Interest Group

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Gamma-ray SIG (GRSIG, GammaSIG)



- Made up of: entire gamma-ray astronomy community!
- Chaired by: Manel Errando (Wash U, St. Louis), Eric Burns (Louisiana State U), JF
- Visit the [website!](#)
- Subscribe to our [mailing list!](#)

QR code for
mailing list:





List of gamma-ray missions

- List on [GRSIG website](#) ([direct link](#))
- List of currently operating, planned, and proposed missions.
- Help us keep it up to date! Email us with corrections!

	A	B	C	D	E	F
1	Mission Name	Lead(s)	Size	Description	Energy Range	Website
2						
3	Currently Operating					
4	Fermi	Liz Hays (GSFC), Judith Racusin (GSFC)	Probe	Launched 2008.		https://fermi.gsfc.nasa.gov
5	Fermi Large Area Telescope (LAT)	Peter Michelson (Stanford), Bill Atwood (UCSC)		Pair conversion telescope. Silicon strip tracker. CsI calorimeter	20 MeV - 300 GeV	https://glast.sites.stanford.edu
6	Fermi Gamma-ray Burst Monitor (GBM)	Colleen Wilson-Hodge (MSFC), Michael Briggs (UAH)		Nal and BGO scintillators	8 keV - 40 MeV	https://gammaray.msfc.nasa.gov/gbm/
7	Swift	Brad Cenko (GSFC)	MIDEX	Launch 2004.		
8	Swift Burst Alert Telescope (BAT)	Scott Barthemly (GSFC)		Partial coding mask, CZT detector plane	15-150 keV	https://swift.gsfc.nasa.gov/
9	CALorimetric Electron Telescope (CALET)	Shoji Torri (Waseda U)	ISS Payload	CALET Calorimeter (CCAL). CALET Gamma-ray Burst Monitor (CGBM): LaBr and BGO scintillators. Japanese led with US involvement. Launched 2015.	CCAL: 1 GeV - 1 TeV CR electrons. CGBM: 7 keV - 20 MeV	
10	GAGG Radiation Instruments (GARI)	Lee Mitchell (NRL)	ISS Payload	Gadolinium Aluminum Galium Garnet (GAGG) scintillators. Funded by DOD/Navy. Launched 2022	20 keV - 8 MeV	
11	Strontium Iodide Radiation Instrument 2 (SIRI-2)	Lee Mitchell (NRL)		Strontium Iodide Scintillator. Funded by DOD/Navy. Launched 2022	30 keV - 8 MeV	
12						
13	Funded					
14	Compton Spectrometer and Imager (COSI)	John Tomsick (Berkeley, SSL)	SMEX	Compton telescope. Ge detectors	0.2 - 5 MeV	https://cosi.ssl.berkeley.edu
15	Starburst	Dan Kocevski (MSFC)	Pioneer SmallSat	CsI scintillators	30 keV - 2 MeV	
16	Glowbug	Eric Grove (NRL)	ISS Payload	CsI scintillators	30 keV - 2 MeV	
17	BlackCat	Abe Falcone (PSU)	6U CubeSat	Coded mask, hybrid CMOS detectors	0.5 - 20 keV	
18	BurstCube	Jeremy Perkins (GSFC)	6U CubeSat	CsI scintillators	50 keV - 1 MeV	https://asd.gsfc.nasa.gov/burstcube/
19	Advanced Demonstrator for Advanced Particle-astrophysics Telescope (ADAPT)	Jim Buckley (WUatSL)	Balloon	CsI pair and Compton telescope	< 1 MeV - > 1 GeV	
20	Strontium Iodide Radiation Instrument 3 (SIRI-3)	Lee Mitchell (NRL)		Strontium Iodide Scintillator. Funded by DOD/Navy. Polarimetry. P-terphynl and Gadolinium Aluminum Galium Garnet (GAGG) scintillators	30 keV - 8 MeV	
21	Gamma Ray Polarimeter Experiment (GRAPE)	Mark McConnell (UNH)	Balloon		50 - 500 keV	
22						

Software list?

(Henrike Fleishhack)

- Have list of software projects on GRSIG website.
- A list of gamma-ray relevant software packages that welcome contributions
- Links to resources





Upcoming virtual meeting

- May 12, 3:00 pm Eastern time!
- Stay tuned for email through GRSIG mailing list!
- Speakers (not necessarily in this order):
 - Jeremy Perkins – SAG on science drivers for future missions
 - Chris Fryer – design process and implementation for future gamma-ray missions
 - Steve Boggs – lessons learned from Advanced Compton Telescope
- Discussion on future gamma-ray missions, possible new SAG



Recent AAS Meeting

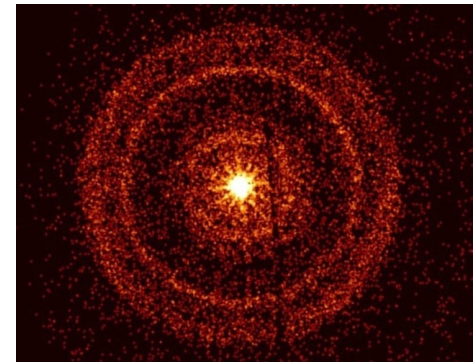
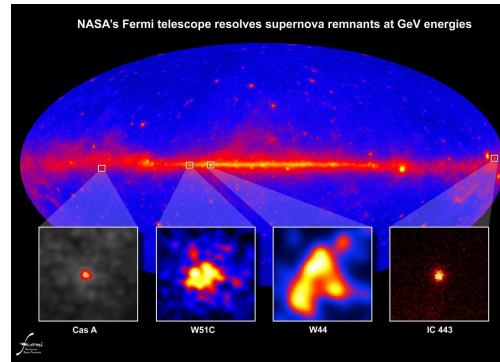
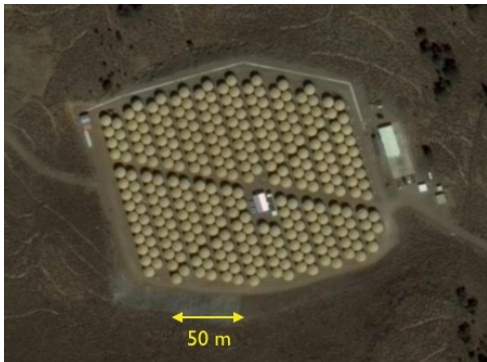
Time	Title	Speaker	
9:00am–9:05am (5 mins)	Introduction	Eric Burns	[PDF]
9:05am–9:25am (15+5)	LEAP	Mark McConnell (remotely)	[PDF]
9:25am–9:45am (15+50)	MoonBEAM	Michelle Hui	[PDF]
9:45am–10:05am (15+5)	Wallops Flight Facility	Carolyn Kierans	[PDF]
10:05am–11:00am	Discussion		

“The project must be driven by the science, not by an instrument in need of an application.” – Mark McConnell



Gamma-ray Astrophysics at APS Meeting

- Two gamma-ray astronomy sessions at APS Meeting, both tomorrow (April 17)
- Session M13, Gamma-ray Astronomy I , 10:45 am to 11:57 am, Marquette IV
 - SNRs, LS 5039, GRB 221009A, LHAASO source observed with HAWC
- Session N13, Gamma-ray Astronomy II, 1:30 pm to 3:06 pm, Marquette IV
 - Lots of HAWC talks! HAWC sources, HAWC catalog, VERITAS observations of HBLs



Summary



- Get involved with GRSIG!
- Visit the [website!](#)
- Subscribe to our [mailing list!](#)
- Come to our virtual meetings! Next one May 12, 3 pm Eastern!
- Suggest a SAG!
- Join the PhysPAG EC! Call for nominations in the Fall!

QR code for
mailing list:

