



# Fermi

Gamma-ray Space Telescope

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Gamma-ray Space Telescope

Users Group Meeting  
Oct, 2017

Mission Status Update

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# Observatory Status Highlights

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- **Observations:**
  - Regular +/-50 deg sky survey with occasional ARR
  - ToO: Crab, several stellar novae, CTA 102, M87
  - Two LAT onboard GRB detections (GRB160625B, GRB160509A)!
- **FOT/engineering activities**
  - FOT exercise for reaction wheel failure (using simulated data)
  - Transition in contract for the mission operations center
    - Replacing flight operations team with new staff – training is currently underway
- **LAT/FSSC operations**
  - Transitioning tasks from SLAC/ISOC to FSSC/LAT collaboration

# Targets of Opportunity

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- **The sky is currently full of interesting gamma-ray things**
  - **Two long period binaries at, or near, periastron**
  - **Bright Stellar Nova**
  - **Flaring AGN positionally and temporally consistent with a IceCube-detected neutrino**
- **Current (i.e. short term) plan is to stay in sky survey for now.**
  - **Should we send a note to Fermi-news explaining this?**
- **However, we do want to encourage people to suggest ToOs and other special observations.**

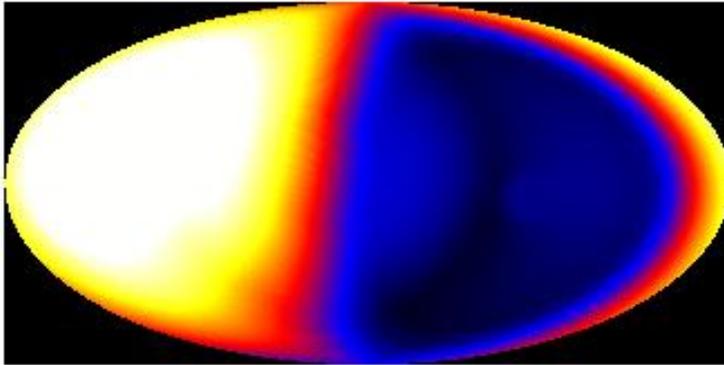
# Observation Planning Tools

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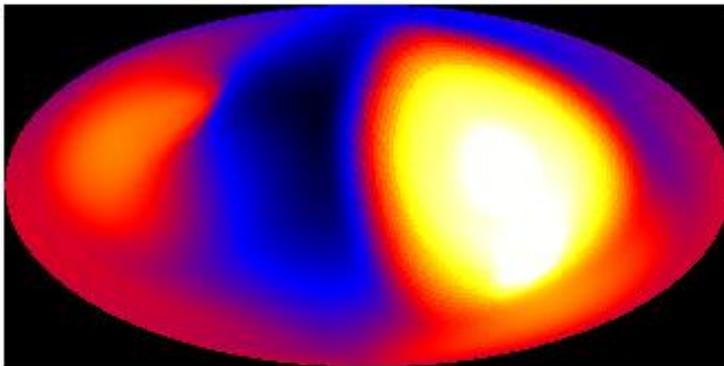
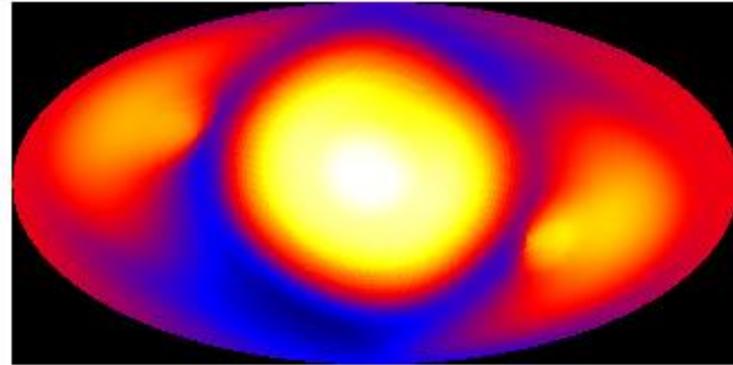
- **We had discussed in 2010 and 2013 in the users group the level of support from the FSSC for observation planning.**
  - **Limited to pointed/survey mix, north or south rock, single target inertial pointing (with limb following during occultation)**
- **However, it is clear that we need to provide some help for users to do their own studies.**

# TOO Discussion

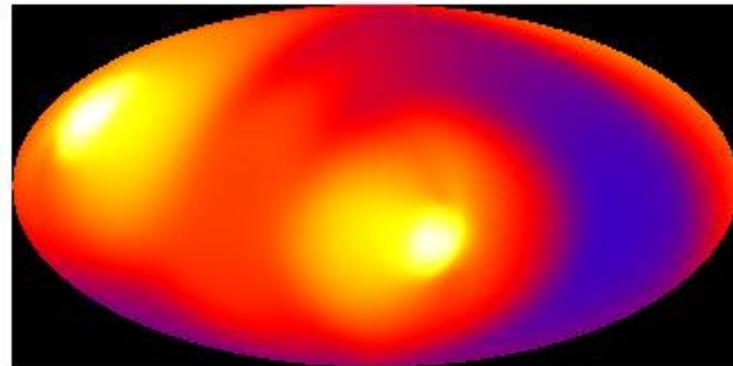
M82 (northern rocking)



GC pointing/survey mix



PSR B1259-63 pointing/survey mix



50 deg survey



- Exposure at 10 GeV for selected observations in 2014

# Guest Investigator program

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- **How to strike a balance between long term work/investment and new ideas?**

# Paper Status for 2016 - # papers

- **From Jan-Dec 2015**
  - **309 papers (c.f. 348 in 2015)**
- **Top cited papers:**

Title	Author	# Citations
The characterization of the gamma-ray signal from the central Milky Way: A case for annihilating dark matter	Daylan, T., et al.	389
Fermi GBM Observations of LIGO Gravitational-wave Event GW150914	Connaughton, V., et al.	156
Fermi-LAT Observations of High-Energy Gamma-Ray Emission toward the Galactic Center	Ajello, M., et al.	135
2FHL: The Second Catalog of Hard Fermi-LAT Sources	Ackermann, M., et al.	108
Development of the Model of Galactic Interstellar Emission for Standard Point-source Analysis of Fermi Large Area Telescope Data	Acero, F., et al.	83

# Senior Review News

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- **Periodic review to determine the fate of operating missions**
  - **Now every three years (used to be every two years)**
  - **Next review in 2019**
    - **Planning to focus on time domain astrophysics and multimessenger astrophysics**
  - **Need to collect science ideas/focus**
    - **discuss...**
  - **Technical initiatives**
    - **Reducing threshold for onboard GRB triggers (GBM)**
    - **Change ARR strategy**
    - **...**

# Questions

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