Science Analysis Requirements

- ♦ Why are We Here?
- ♦ Status
- ♦ To-do List
- ♦ Review of Requirements

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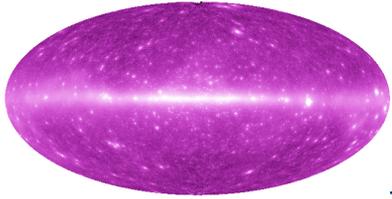
Why are We Here?

- ♦ Defining requirements to get the scope of the problem, for planning

- ♦ Must be done early (and carefully) because the analysis requirements are drivers for requirements across the data system

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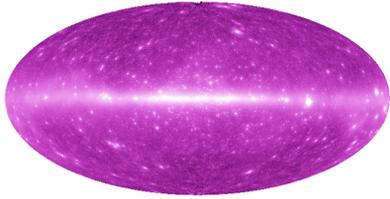
Status of the Working Group

- ♦ Early December: Issues defined, initial working group assembled, and draft requirements solicited
- ♦ January: breakout sessions at the software meeting at SLAC
- ♦ February: Inputs distilled into draft requirements document, circulated for comment
- ♦ Now: Review and comment
- ♦ Science Analysis software is taken here to mean all analysis software after reconstruction and cuts

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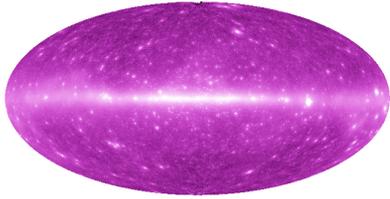
Working Group Membership

Elliott Bloom — *WIMP lines*

Jerry Bonnell — *GRB trigger, analyses*

Seth Digel — *Interstellar emission, source catalog, databases*

Arache Djannati — *Calibration (calorimeter)*

Isabelle Grenier — *Interstellar emission, source catalog, unidentified sources*

Eric Grove — *Calibration (calorimeter)*

Robert Johnson — *Calibration (tracker)*

Y. C. Lin — *Extragalatic point sources*

John Mattox — *Periodicity searches, source identification, polarization*

Hans Mayer-Hasselwander — *Calibration*

Pat Nolan — *Point-source spectroscopy*

Jay Norris — *GRB trigger, analyses*

Jonathan Ormes — *Calibration (ACD), WIMP lines*

Steve Ritz — *Calibration, multi-gamma events, EBL*

Jeff Scargle — *GRB triggers, diffuse emission*

Dave Thompson — *Pulsars*

Kent Wood — *Unidentified sources*

Heather Arrighi, Cathie Meetre — *Databases*

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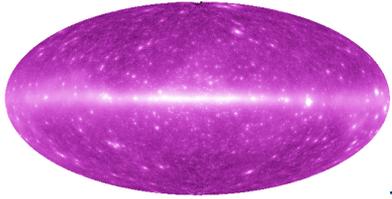
IDS Coordination

Chuck Dermer — *Spectral studies of point sources and diffuse emission*
Brenda Dingus — *GRBs, transient sources*
Martin Pohl — *Diffuse emission from the Milky Way*
Stephen Thorsett — *Pulsars*

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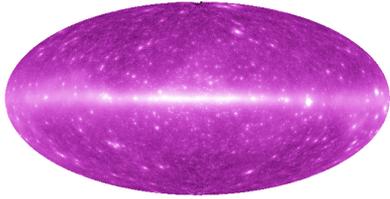
To-do List: Big Items

Near Term

◆ Prepare a description of how the science analysis requirements relate to the software requirements. {Working Group -- 1st draft by ~ March 1; review by April 1}

◆ Establish a cross-subsystem working group for calibration. {coordinator: J. Ormes, A. Djannati, E. Grove, R. Johnson, K. Wood, S. Digel & J. Norris -- established group ~ January 15; 1st draft of document ~ April 1}

◆ Define figures of merit for evaluating the astronomical performance of different configurations of GLAST {S. Digel & J. Norris, by ~ March 1}

◆ Quantitatively evaluate at least two versions of the GLAST tracker {May 1}

◆ Establish working group to unify pieces of simulations for WIMP lines {E. Bloom, J. Ormes, N. Johnson -- established group ~ January 15; answers by ~ May 1}

Longer Term

◆ From the Software Requirements prepare definitions of software modules {<summer, 2001}

◆ Sky Simulations: Prepare realistic γ-ray sky simulations as input to Glastsim, for support of the Mock Data Challenges{<summer, 2001}

◆ Analysis of Interstellar Emission -- Non-parametric characterization of the interstellar emission{<summer, 2001}

◆ Programming and testing of the science analysis software {≤2003}

GLAST