

TDAMM SIG

Time-Domain And MultiMessenger Science Interest Group

- New Messengers and New Physics was one of the three themes of Pathways to Discovery in Astronomy and Astrophysics for the 2020s, with New Windows on the Dynamic Universe as the priority area this decade
- Time-Domain And MultiMessenger (TDAMM) is the NASA acronym to capture this priority area
- NASA Astrophysics has three Program Analysis Groups (PAGs) which operate in different areas of the field. TDAMM crosses these areas. Science Interest Groups (SIGs) are focused groups under the PAGs
- TDAMM SIG is set up as an organizational venue. It is a Cross-PAG SIG
 - **Physics of the Cosmos** - Eric Burns, Rebekah Hounsell
 - **Cosmic Origins** - Brad Cenko
 - **Exoplanet Exploration** - Ian Crossfield

TDAMM SIG Tasks

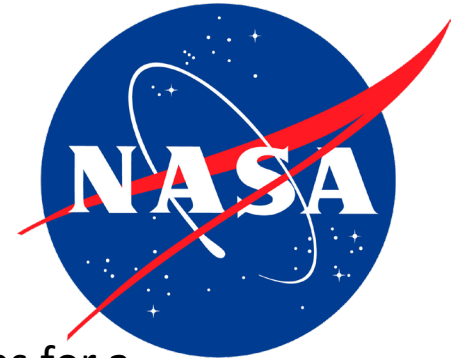
1. **Provide analysis and feedback to NASA** on the impact of the Astronomy & Astrophysics Decadal Survey on the subfield.
2. **Identify and articulate “science gaps”**: gaps between the current state of knowledge in the subfield and the goals outlined by the Decadal Survey that require new data in order to fully define new missions (precursor gaps), prepare for approved missions that are in development (preparatory gaps), and maximize the science return from current missions (follow-up gaps).
3. Serve as ambassadors to **facilitate communications between NASA and the science community**. In particular, act as the interface to relevant TDAMM communities outside NASA’s immediate sphere, e.g., ground-based observers, physics facilities.
4. Engage in scientific discussions and exchange of ideas through meetings and seminars to **make best use of NASA assets for current research and to assist NASA in strategic planning in TDAMM activities**.
5. **Propose and organize TDAMM sessions at conferences and arrange other public meetings as appropriate**.
6. **Establish and disseminate best practices for conducting TDAMM science**, for missions both in development and in operations, and for observers and investigators, including in regards to sharing and citing data in an era of open data.
7. **Proposing of Science Analysis Groups**.

TDAMM Science Analysis Groups (SAGs)

- SAGs deliver findings to NASA on a predefined topic and have finite lifetimes
- TDAMM SAGs
 - Gamma-ray Transient Network SAG - Chairs: Eric Burns, Michael Coughlin; done
 - TDAMM Communications SAG - Chairs: Jamie Kennea, Judith Racusin; in progress
- **Possible** additional TDAMM SAGs
 - TDAMM Roadmap SAG - find programmatic improvements to existing and selected missions, funding calls, and cross-agency work. Identify specific mission needs as a priority for this decade
 - TDAMM Sociological SAG - find ways to improve the state of the field with respect to DEIA principles, work-life balance, and proper credit sharing to facilitate greater scientific return
 - Are there other SAGs that we should consider? Let us know in the discussion time or in future meetings



NASA's Astrophysics Cross-Observatory Science Support (ACROSS) Pilot



- Following the initial phase of a study of implementation options for a TDAMM General Observer Facility, NASA HQ authorized a two-year **ACROSS** pilot phase to incentivize and facilitate the planning and execution of TDAMM science cases.
 - Emphasizing development of cross-observatory science-support tools, operations concepts, and infrastructure to facilitate follow-up observations.
 - Primary users of ACROSS capabilities are general observers and observatory (mission) science teams.

Team:

- Brian Humensky, Chris Roberts (PhysCOS Program Office)
- Jamie Kennea (Pilot Scientist, Penn State)
- Dan Kocevski, Michelle Hui (Marshall Space Flight Center)
- Leo Singer, Christina Hedges, Tom Barclay, Sam Wyatt (Goddard Space Flight Center)
- And others

ACROSS iPoster:
Wed, Jan 10
5:30-6:30pm

TDAMM SIG

- This is the first meeting of TDAMM SIG
- Opening (this talk) - ~5 minutes
- Roman (Rebekah Hounsell) - 10 minutes
- ULTRASAT (Brad Cenko) - 10 minutes
- NEO Surveyor (Roc Cutri) - 10 minutes
- Discussion ~30 minutes



Email signup instructions



Webpage