2016 Workshop: Quo Vadis

Long title
Exploring the Geospace Frontier: Quo Vadis?
CEDAR-GEM
Conveners
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Description

This will be a continuation of the Quo Vadis workshop held at NCAR in May to shape the direction of research in geospace system science. The focus will remain on the experimental infrastructure required for discovery research in the 21st century, with consideration for both basic and applied research driven by cutting edge observations of the system. The goal is to develop through a series of workshops strategies to integrate geospace research across outmoded disciplinary boundaries and better align with activities carried out by different federal and international agencies. Central among these is the National Space Weather Action Plan.

Agenda

Brief presentations:

- Larry Paxton: MEGI MREFC concept.
- Marl Conde: E-region neutral winds and imaging FPIs.
- Nick Zabotin: Dynasonde measurements advance understanding of the thermosphere-ionosphere dynamics.
- Peter Chi: Advancing magnetoseismology by ground-based magnetometer networks.
- Stephen Mende: Observing the magnetosphere through auroral imaging.
- Bob Lysak: High-resolution 3D imaging.
- Jesper Gjerloev: How many ground magnetometers do we need?
- Vassilis Angelopoulos

- Yan Song: The importance of theory development in exploring the geospace frontier
- Elizabeth MacDonald: Transformative crowd-sourcing for neo-geospace
- Delores Knipp: Improving data assimilation: Which datsets are we gaining, and which are we losing?
- Bill Lotko: Winning an MREFC plus two important diagnostics.

Panel discussion (30 min.)

Justification

The objectives of the workshop is define the most important overarching challenges in solar-terrestrial research, the experimental assets best suited to fill observational gaps, and the observational approaches required for progress and discovery. We plan to meet the workshop objectives through a series of moderated discussions. By the end of the workshop, we should have outlined a multi-year plan to pursue a Major Research Equipment and Facilities Construction (MRECF) project.

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