Geospace Programs FY 2016

AERONOMY
Ruth Lieberman
$9.3M

MAGNETOSPHERE
Janet Kozyra
$7.1M

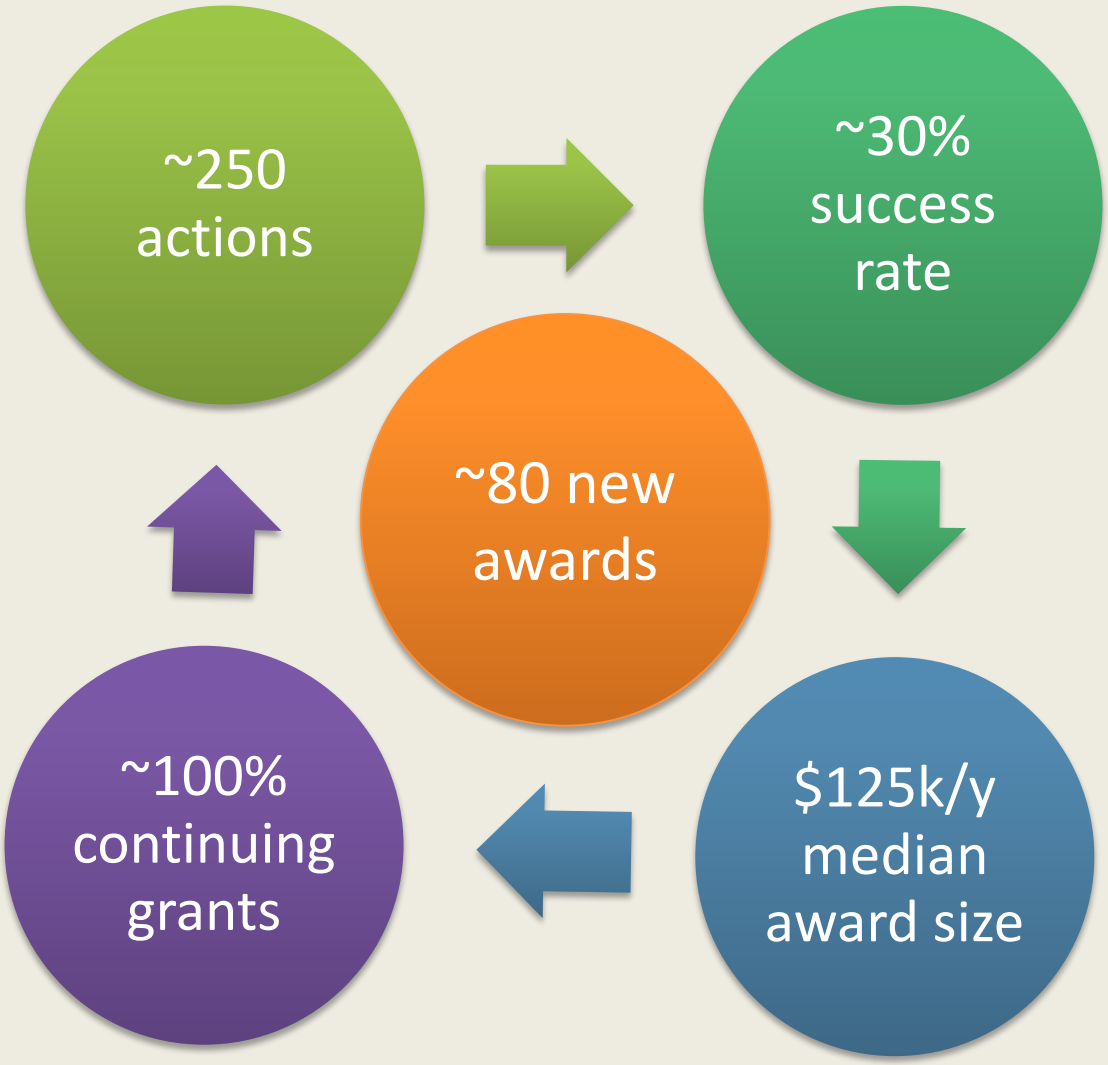
SOLAR-TERRESTRIAL
Illia Roussev
$7.8M

SPACE WEATHER
Vacant
$6.2M

FACILITIES
John Meriwether
$14.3M

$45.2M
Up 4% over FY 2015

Quick Facts AER, MAG, STR Grants 2016



FDSS:
Two awards granted in 2015

- U. of Minnesota:

Lindsay Glesener

Solar and space physics, high-energy astrophysics, astronomical instrumentation development

- U. of Illinois:

Raluca Ilie

High-performance, first-principles computational models of the near-Earth space environment

Cubesats: Next up QB50

- 42 science satellites: In-situ measurements of the lower thermosphere 100-320km
- QBUS: 4 spacecraft, U. Michigan (2), Stanford U., and UC Boulder
- Atlantis, Columbia, Discovery, and Challenger
- 2 Ion-Neutral-Mass-Spectrometers
  - Discovery, Challenger
- 2 AO and O2 Sensors (FIPEX)
  - Atlantis, Columbia
- Deployment from ISS with Nanoracks; Launch in November?

Arecibo Update

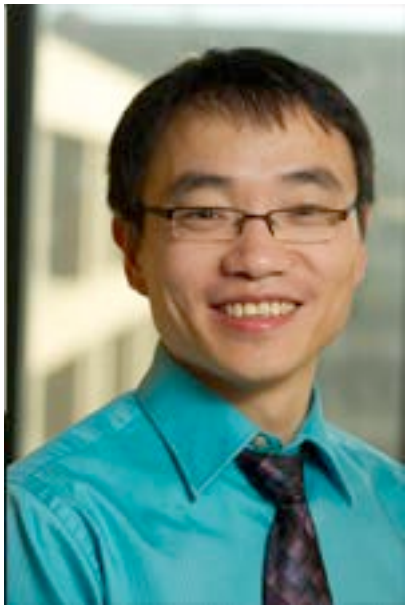
- DCL released to the community late last fall requesting new operational concepts for the management of AO
- Solicitation for continued operations under preparation
- EIS underway for range of possible options: no change; science or educational collaborations; mothballing; deconstruction
- Draft EIS assessment released for public comment later this Fall

AMISR Re-competition

- Portfolio review recommended split of AMISR into two separate projects for PFISR and RISR-N
- Stronger focus on separate science themes: auroral science and central polar cap science.
- DCL NSF 16-127 posted on Sep 1 announcing the intent to re-compete
- Solicitation expected in early January 2017 for two awards

Multi-disciplinary CAREER award

- Chunlei Charles Liang, George Washington U.

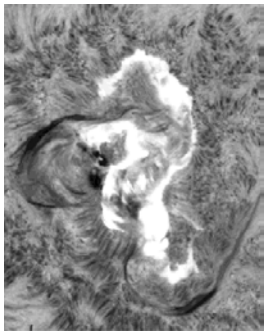


Associate Professor of Engineering and Applied Science; Associate Professor of Mathematics

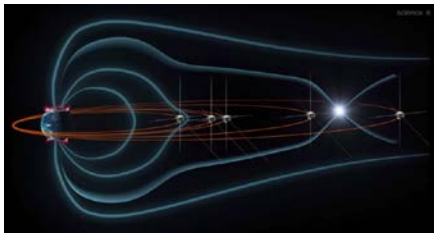
- A Novel and Fast Open-Source Code for Global Simulation of Stratified Convection and Magneto-hydro-dynamics of the Sun
- Co-funded by STR and 3 programs in Computer science, Engineering, and Math (4 directorates at NSF)

PREEVENTS Update

- Co-funding core proposals (~$500,000 in FY2016)



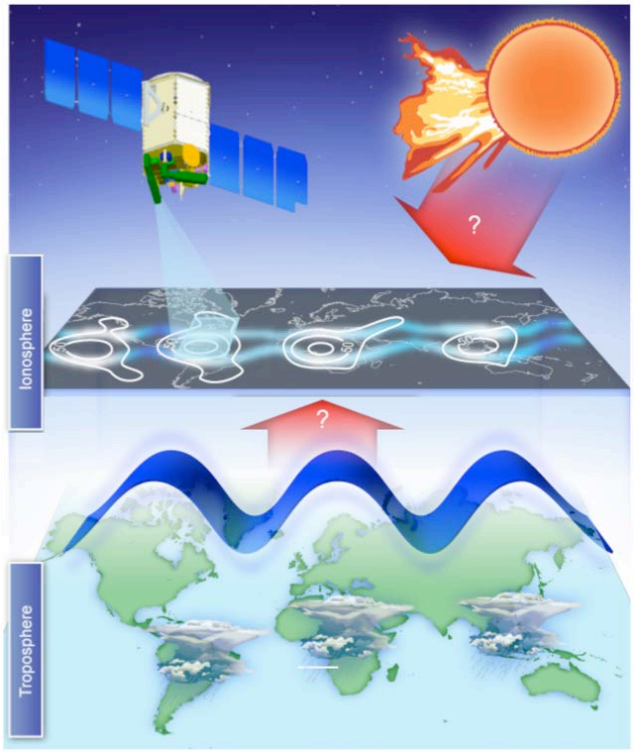
- Juan Carlos Martinez Oliveros UC Berkeley: Study of the Emission Heights of White-Light Solar Flares and their Hard X-Ray Sources

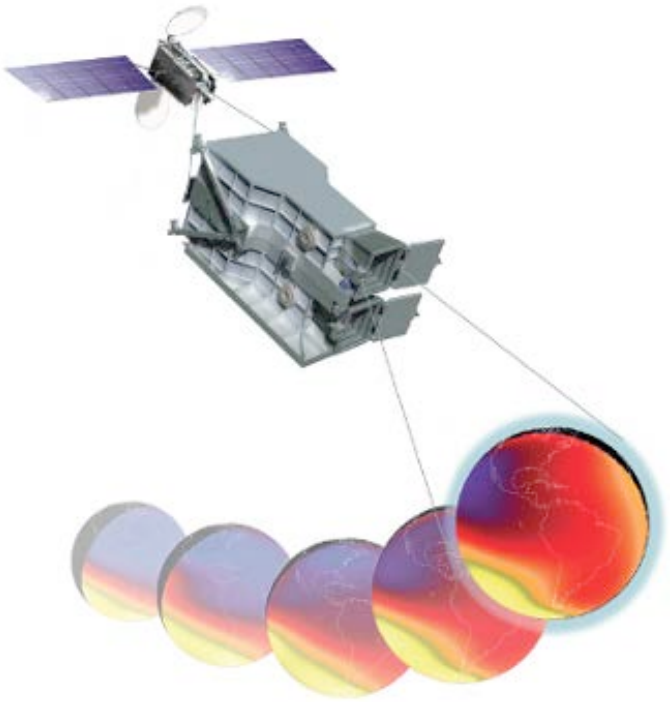


- Joachim Birn, SSI: GEM: Onset and Consequences of Reconnection in the Magnetotail

- Solicitation for large projects and workshops
  - LOI due July 2016; Full proposals Sep 20, 2016
  - Review underway

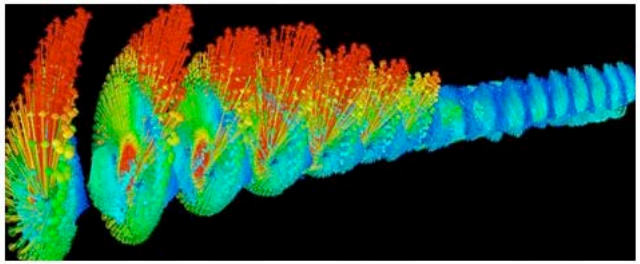
Collaborate with NASA on Science with ICON & GOLD

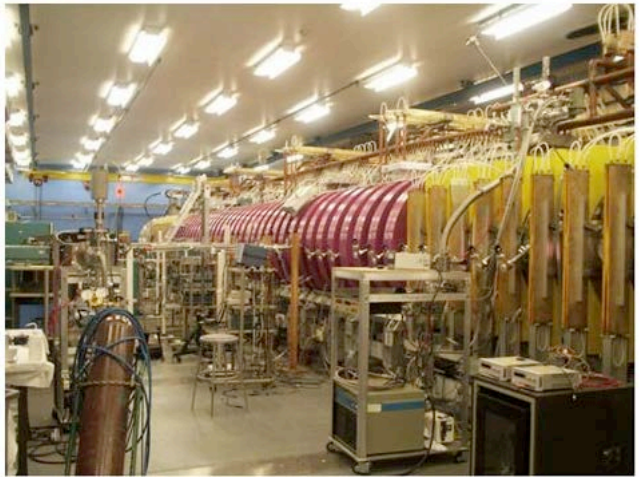




- Community workshop to identify science questions & ground- & space-based collaborations, last week at HAO
- Anticipate joint and/or coordinated grants program in 2018

NSF/DOE Partnership in Basic Plasma Science and Engineering





Large Plasma Device at UCLA

- One of the longest running inter-agency partnerships in the federal government
- For 20 years, the Partnership has supported fundamental research in plasma science and engineering covering a diverse range of scientific topics spanning experiment, theory, and computation.
- 20th Anniversary Workshop, January 9-11, 2017 @ NSF
- By invitation only