



National Aeronautics and Space Administration

# Workshop on Gravitational Wave Mission Architectural Concepts

Hosted by the NASA Physics of the Cosmos Program  
The Conference Center at the Maritime Institute | 692 Maritime Boulevard  
Linthicum Heights, MD 21090, USA  
December 20th and 21st, 2011

## Purpose and Goals

NASA's Physics of the Cosmos (PCOS) Program is developing alternative plans to address the high priority LISA science objectives described in the 2010 Astrophysics Decadal Survey report, *New Worlds, New Horizons*. The NASA PCOS Program Office will work with the gravitational astrophysics community to develop new mission concepts to cover a range of cost points and capabilities.

To this end, NASA issued a Request for Information (RFI) to solicit ideas for gravitational-wave mission concepts at various cost points satisfying some or all of the LISA science objectives. NASA has also solicited membership in a Community Science Team (CST) who, together with a Core Team of NASA scientists and engineers, will formulate notional mission concepts for further study. The results of that study will be presented to the National Research Council's Space Studies Board Committee on Astronomy and Astrophysics (CAA) for consideration in the summer of 2012. Recommendations from the CAA will subsequently be used to guide detailed development of scientific, technical, and cost information for future US gravitational-wave missions.

In conjunction with this study, the PCOS Program Office is hosting a gravitational-wave mission concepts workshop to bring together the gravitational-wave and astrophysics communities with the CST and the Core Team to explore these concepts.

During the workshop, RFI responders will have an opportunity to present mission concepts, technologies, and capabilities relevant to gravitational-wave missions. Addresses by keynote speakers, as well as open discussions, will facilitate the sharing of perspectives, approaches, and solutions. From the RFI responses, the CST and Core Team will formulate 3-4 notional mission concepts for further discussion, representing a range of cost points. These concepts will be presented during the workshop in order to solicit feedback from and reach consensus within the gravitational astrophysics community. The final concepts will then be further studied and defined for use in the final presentation to the CAA. The workshop is NOT selecting actual missions for implementation. Travel for the Community Science Team and Core Team will be covered by the PCOS Program Office. All other attendees will be responsible for their own travel costs. Dial-in access will also be available for those who cannot attend but wish to participate. Travel and accommodation information can be found at [www.ccmmit.org](http://www.ccmmit.org).

## REGISTRATION

The workshop is *FREE* and available for both in-person and electronic attendance. Join us by registering between November 8<sup>th</sup> and December 12<sup>th</sup>, 2011 at:

<https://www.signup4.net/Public/ap.aspx?EID=XRAY11E>

Registration is required (*registration site is external to NASA*) for both in-person and electronic attendance.

In-person attendance is limited to 125 individuals; electronic attendance is unlimited.

See the NASA Physics of the Cosmos (PCOS) Studies website for additional information:

<http://pcos.gsfc.nasa.gov/studies/gravitational-wave-mission.php>