2013 IAA Planetary Defense Conference: Gathering for Impact!
15-19 April 2013, Flagstaff, Arizona
www.pdc2013.org

Call for Papers

The theme for the *2013 IAA Planetary Defense Conference,* sponsored by the **International Academy of Astronautics** (IAA), is **"Gathering for Impact!"** Papers are solicited in the following areas:

Planetary Defense – Recent Progress & Plans
- Current national and international funded activities that support planetary defense
- Program status and plans (e.g., NASA's NEO program, ESA's SSA program)
- Current international agreements and coordination activities

NEO Discovery
- Overviews of current ground and space-based discovery statistics
- Current discovery and follow-up capabilities, and advances in utilizing archival data
- Orbital refinements including non-gravitational effects and keyholes
- New surveys expected to be operational within the current decade

NEO Physical Characterization that Informs Mitigation
- Size distribution, albedos, composition, densities, rotation rates, etc.
- Lessons learned from recent observing programs
- The smaller NEOs (≤ 300 m): assessing the physical properties of the more frequent impactors

Mitigation Techniques & Missions
- Space technologies for asteroid deflection/disruption (e.g., new concepts, kinetic impactor GNC, astrodynamics)
- Flight validation/demonstration missions for planetary defense technologies
- Robotic and human NEO exploration mission planning and design (e.g., OSIRIS-REx, Hayabusa 2, etc.)

Impact Effects that Inform Warning, Mitigation & Costs
- Information from the geological record and recent history
- Consequences of ocean and land impacts
- Economic costs of impacts

Consequence Management & Education
- Policy or legal analysis that will affect or inform future mitigation plans
- Educating the public and the media on NEO detection, impact effects, mitigation missions, impact warnings
- Strategies for developing disaster response plans across international borders
- Lessons learned from regional and international disasters (e.g.: Fukushima, Chernobyl, Hurricane Katrina) that provide insights for planetary defense

The conference will include an exercise where participants will simulate the decision-making process for developing deflection and civil defense responses to a hypothetical asteroid threat.

Participants will develop a set of actionable recommendations that will help to improve our ability to successfully defend Earth from possible impacts and prepare for unexpected NEO-related disasters. Throughout the conference asteroid 2011AG5 will be considered as a reference scenario to focus the discussions (current information on 2011AG5 is posted at http://neo.jpl.nasa.gov/risk/2011ag5.html).

ABSTRACT SUBMITTAL: Technical paper abstracts (500 to 1000 words in length) in the areas described above or related to planetary defense will be accepted electronically through the conference website (**http://www.pdc2013.org**) beginning **September 1, 2012**. Please be sure to designate the topic area your paper addresses (see topics listed above). The deadline for receipt of abstracts is **January 18, 2013**. Letters of official acceptance will be mailed on or before February 1, 2013.

PAPERS: Papers are due by close of business on **April 8, 2013**. Revisions and corrections will be accepted within two weeks after the end of the conference. The format for papers is specified on the conference web site. Accepted papers (including poster papers) will be published in the official conference Proceedings CD. Selected peer-reviewed papers will be published in *Acta Astronautica.*

STUDENT COMPETITION: One or more of the best student paper(s) will be awarded a prize. The aim of the student competition is to help promote academic work and informed political debate by enhancing research and general understanding essential for sound decision making on NEO impact threats in years to come.

*For more information: **http://www.pdc2013.org***