

Draft Program (April 1, 2011)

2011 IAA Planetary Defense Conference
 9-12 May 2011
 Bucharest, Romania

DAY 1: MONDAY, May 9, 2011		
Time	Topic	Presenter
0800-0900	REGISTRATION	
0900	Welcoming Remarks ¹	
0930	Keynote:	Dr. Anders Sandberg
1000-1030	BREAK	
	SESSION 1: History & Current Status	
	Session Chairs: Ray Williamson, Detlef Koschny	
1030	Historical Overview	Morrison
1100	US/NASA NEO Program Status and Plans	Johnson
1130	ESA's SSA Programme	Drolshagen
1200	Introduction to UN COPUOS and NEOs	Crowther
1220	A Global Approach to Near-Earth Object Impact Threat Mitigation	Harris (DLR)
1230-1400	LUNCH	
	SESSION 2: Discovery & Tracking Resources and Plans	
	Session Chairs: Alan Fitzsimmons, Lindley Johnson	
1400	Update of Estimated NEO Population and Current Survey Completion	Harris
1425	Comparing the Earth Impact Flux from Comets and Near-Earth Asteroids	Yeomans
1450	The Catalina Sky Survey, Past, Present, and Future	Beshore
1515	The Pan-STARRS search for Near Earth Asteroids – present status and future plans	Wainscoat
1540-1610	BREAK	
1610	Near Earth Object Detection with LSST	Jones
1635	GAIA Astrometry and Spectroscopy of Near-Earth Objects	Hestroffer
1700	The Near Earth Object Surveillance Satellite (NEOSSat)	Hildebrand
1725	Space Based Survey Telescope	Abel
1750	NEO Survey, a Tool for Understanding Mission-Level System Trades for Detecting and Characterizing the NEO Threat and Exploration Opportunity over the next two Decades	Arentz
1815	ADJOURN	

¹ This session will be introduced by the conference Chair(s) and likely include Dorin Prunariu and other Romanian official

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DAY 2: TUESDAY, May 10, 2011		
Time	Topic	Presenter
0900	Intro & Welcome	
SESSION 3: Potentially Hazardous Objects – Recent Progress		
Session Chairs: Don Yeomans, Giovanni Valsecchi, Pedro Gutierrez		
0910	Physical Properties of NEOs that Inform Mitigation	Patrick Michel
0935	NEOWISE – An Infrared View of NEOs and the Solar System	Amy Mainzer
1000	Radar Tracking and NEO Characteristics	Lance Benner
1025	Orbital Distribution of Near-Earth Objects	V. Emel'yanenko
1050-1120	BREAK	
1120	1999 RQ36 and Modeling the Long Term Yarkovsky Effect	Andrea Milani
1145	Asteroid Impact Hazard Assessment over Long Time Intervals	Steve Chesley
1210	The search for Earth impacting asteroids by the Pan-STARRS	Peter Veres
1235	Keyholes as Providers of Deflection Leverage	Paul Chodas
1300-1430	LUNCH	
SESSION 4: Impact Consequences & Education		
Session Chairs: Mark Boslough, Alan Harris (US)		
14:30	Consequences of the Tunguska Impact and their Interpretation	Longo
15:00	The Terrestrial Impact Crater Record and How to Recognize Impact Craters	Koeberl
15:30	Creating Awareness – The Impact Hazard in Public Education Curricula Content, Students' Interests and Concepts and Educational Implementation	Mueller
15:50	New Classification Scale for Impact Consequences	Gritsevich
16:10-16:40	BREAK	
16:40	Airburst Warning and Response	Boslough
17:10	Calculation of the Impact of a Small Asteroid on a Continental Shelf	Gisler
17:40	Dynamics of Tsunamis Generated by Asteroid Impact in the Black Sea	Isvoranu
18:00	The Protective Role of the Earth's Atmosphere against the Threat of Asteroids	Verant
18:20	ADJOURN	

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DAY 3: WEDNESDAY, May 11, 2011		
Time	Topic	Presenter
0900-0910	Intro & Welcome	
SESSION 5: Campaign Planning		
Session Chairs: Nahum Melamed, A.C. Charania		
0910	What do we do if a Threat is Detected Tomorrow	Karim
0930	Target Selection and Mission Analysis of Human Exploration Missions to Near-Earth Asteroids	Zimmer
0950	Effects of NEO Composition on Deflection Methodologies	Sugimoto
1010	Mission Concepts and Operations for Asteroid Mitigation Involving Multiple Gravity Tractors	Foster
1030-1100	BREAK	
1100	Development of a Handbook and an On-Line Tool on Defending Earth against Potentially Hazardous Objects	Melamed
1120	ESA NEO missions studies: what have we learned? <i>(no abstract)</i>	Glavez
1140	Robotic and Human Exploration/Deflection Mission Design for Asteroid 99942 Apophis	Wagner
1200	Near Earth Object Interception Using Nuclear Thermal Rocket Propulsion	Howe
1220-1400	LUNCH	
SESSION 6: Mission Planning & Technologies		
Session Chairs: Mariella Graziano, Ian Carnelli, Bong Wie		
1400	Measuring the momentum transfer for asteroid deflections	Housen
1420	Influence of intermediate-scale structures on Yarkovsky and YORP effect	Golubov
1440	Improved Navigation Techniques for Asteroid Landers and Impactors	Klesh
1500	Design Options for NEO missions	Gil-Fernandez
1520	Numerical Models of Hazard Mitigation by Nuclear Stand-Off Burst	Plesko
1540	Limits on the Use of Nuclear Explosives for Asteroid Deflection	Dearborn
1600-1630	BREAK	
1630	Hypervelocity Nuclear Interceptors for Asteroid Deflection and/or Disruption	Wie
1650	Gravity tractor strategies for deflecting a binary asteroid system	Bellerose
1710	Modeling of full dynamics of compact or extended gravity tractor(s) in proximity operations at a solitary or multiple-component NEO	Fahnestock
1730	Meeting objectives for human exploration of NEOs: first steps in understanding how to explore	Friedensen
1750	The ion beam shepherd: a new concept for asteroid deflection	Bombardelli
1810	Outline of Hayabusa-2, next asteroid sample return mission of Japan	Yoshikawa
1830	ADJOURN	

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DAY 4: THURSDAY, May 12, 2011		
Time	Topic	Presenter
0900-0910	Intro & Welcome	
	SESSION 7: Student Session	
	Session Chairs: Mariella Graziano, Alex Karl, Dario Izzo	
0910	Present and Future Benefits of the Cubesat missions for the Near-Earth Object Threat Mitigation Concepts	Chitu
0930	Detecting Radiation Pressure on NEOs: The Case of 2009 BD	Micheli
0950	NEOMiSS: A Near Earth Object decision support tool	Norlund
1010	The Performances of a Wide Survey on a Population of Impactors	Farnocchia
1030	BREAK	
1100	Near Earth Asteroids Orbits from Gaia and Ground-Based Observations	Bancelin
1120	Nuclear Fragmentation/Dispersion Modeling and Simulation of Hazardous Near-Earth Objects	Kaplinger
1140	A Visualization Tool for Near Earth Object Awareness and Research	Bradley
1200	Posters	
1225-1400	LUNCH	
	SESSION 8: Legal, Policy, Political Framework for Planetary Defense	
	Session Chairs: Frans von der Dunk, Brian Weeden	
1400	NRC Report Summary & Recommendations	Michel A'Hearn
1425	Progress of NEO Activities Within UN COPUOS	Sergio Camacho
1150	Towards a National NEO Program	Boris Shustov
1515	US Government policy and approach to Planetary Defense	Lindley Johnson
1540	NATO Space Law and Policy – Can it be a Gateway to Global Peace?	Kutsal
1605-1630	BREAK	
	PANEL SESSION: Discussion & Next Steps	
1630	<ul style="list-style-type: none"> • Summary of key points from presentations • Discussion of next steps 	
1730	ADJOURN	