

Session Program

May 5 – 9, 2025

9th IAA PLANETARY DEFENSE CONFERENCE 2025

Poster Session 7: Space Mission & Campaign Design

STELLENBOSCH, CAPE TOWN, SOUTH AFRICA
Protea Hotel by Marriott® Stellenbosch

Mon, May 5

6:00 PM

Poster Session 7: Space Mission & Campaign Design: Posters - Session 7: Space Mission & Campaign Design

Poster Session | Location: STELLENBOSCH, CAPE TOWN, SOUTH AFRICA, Protea Hotel by Marriott® Stellenbosch

RAPID RESPONSE TO AN IMMINENT THREAT

Speaker
Joseph A Nuth

Refining Asteroid Mass Uncertainty via Volume, Porosity, and Density Constraints for Optimal Flyby Mission Design

Speakers
Prof. Brent Barbee, Charlie P Hanner, Melissa Buys

Developing Asteroid Detection, Reconnaissance, and In-situ Scientific Discovery as a Platform for NEO Defense

Speaker
Dr Scott Perl

Operationalizing the Didymos-Dimorphos Asteroid Test Site to Assess Additional Deflection Technologies

Speaker
Nahum Melamed

PULSAR KINETIC IMPACT TECHNOLOGIES

Speaker
Mr Thomas Harris

Opportunities for planetary defense with ESA's LUMIO mission

Speaker
Dr Eloy Peña-Asensio

UTILIZING GRAVITY ASSIST MANEUVERS FOR ASTEROID CAPTURE INTO MOON-RESONANT EARTH SATELLITE ORBIT

Speaker
Ms Olga Chernenko

DESIGNING SPACECRAFT TRAJECTORIES FROM LIBRATION POINT ORBIT TO NEAR-EARTH ASTEROIDS

Speaker
Mr Maxim Pupkov

Aphosis Observation by JAXA Operational Satellite

Speaker
Toshinori Ikenaga

The Accessibility of Potentially Hazardous Asteroids for Ballistic Rapid Reconnaissance Flyby Missions

Speaker
Justin Atchison

StarGrind & Armory Practice – Using Earth’s Best Bad Habits as a Last Ditch Stand Against Short Warning Time NEO Impacts

Speaker
Jan Thimo Grundmann

**ADVANCED TECHNOLOGIES FOR MITIGATING HAZARDOUS PROPELLANTS AND GASES
INTERMINAL LIQUID STAGE OF NEAR EARTH ORBIT MISSION: ENHANCING PLANETARY DEFENSE**

Speaker
KRISHNA KUMAR KV

Research Progress on Small Celestial Body Flexible Landing

Speaker
Zelong Chen

Establishment of International Asteroids Processing Space Station For Economic Feasible Space Mining For Extraction of Minerals and Rare Earth Metals And Minerals From Asteroids And Near Earth Objects For Green And Sustainable Energy With Early Achievement of “Net Zero” by 2075; By Application of An Instrumental Scientific Nonagon Model.

Speaker
Dr ABHINAV KUMAR SHRIVASTAVA

Autonomous Cooperative Navigation for Multi-Spacecraft Landing on Near-Earth Asteroids for Planetary Defense

Speaker
Yilin Cao

HERA GNC flying towards Didymos and its adaptation to RAMSES

Speaker
Andrea Pellacani

Accessibility of Earth Impactors for Planetary Defense Rendezvous Missions

Speaker
Matthew Vavrina

Event-driven constellation mission design for in situ crater formation observation

Speaker
Eric Frizzell

BASTET – A MASCOT-style Nanolander Investigating the Subsurface of Apophis, Seismicity, and Tidal Forces during Earth Encounter

Speaker
Jan Thimo Grundmann

9:00 PM