

Session Program

May 5 – 9, 2025

9th IAA PLANETARY DEFENSE CONFERENCE 2025

Session 6: Deflection / Disruption Modeling & Testing

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

Thu, May 8

9:05 AM

Session 6: Deflection / Disruption Modeling & Testing: Session 6: Deflection / Disruption Modeling & Testing

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

9:05 – 9:13 AM **A Gravity Tractor Mission Concept to a Binary Asteroid**

Speaker

Ronald-Louis Ballouz

9:13 – 9:21 AM

The post-DART heliocentric orbit of Didymos and implications for the effectiveness of the DART impact

Speaker

Steven Chesley

9:21 – 9:29 AM

Designer Asteroids: Using experiments to better understand the effect of asteroid structure on momentum enhancement

Speaker

Angela Stickle

9:29 – 9:37 AM

THE INFLUENCE OF MICRO- VS MACROPOROSITY IN THE DEFLECTION OF RUBBLE-PILE ASTEROIDS

Speaker

Sean Wiggins

9:37 – 9:45 AM

Hypervelocity Cratering and Disruption of Three L-type Ordinary Chondrites

Speaker

George Flynn

9:45 – 9:53 AM

Pulverize It (PI): intentional robust disruption (IRD) for multi-modal planetary defense

Speaker

Brin Bailey

9:53 – 10:01 AM

Experimental Calibration of X-Ray Energy Deposition Models for Planetary Defense with the OMEGA Laser

Speaker

Dr Patrick King

10:01 – 10:09 AM

Nuclear Deflection of Kilometer-Scale Asteroids Simulated using Sandia's Z Machine

Speaker

Dr Nathan Moore

10:09 – 10:17 AM

Options and Uncertainties for Nuclear Mitigation in the 2025 Hypothetical Asteroid Threat Exercise Scenario

Speaker
Catherine Plesko

10:17 - 10:25 AM

Simulating Asteroid Deflection and Disruption Using an X-Ray Energy Deposition Model in SPH

Speaker
Dr Isaiah Santistevan

10:25 - 10:40 AM

Q&A / Discussion

10:40 AM