

Tuesday, March 22, 2016

[T315]

POSTER SESSION I: PLANETARY MISSION CONCEPTS: SMALL BODIES

6:00 p.m. Town Center Exhibit Area

Elkins-Tanton L. T. Asphaug E. Bell J. Bercovici D. Bills B. G. et al. **POSTER LOCATION #231**
[Asteroid \(16\) Psyche: The Science of Visiting a Metal World](#) [#1631]

Psyche got a hit-and-run, and now shows metal. We want to go see.

Levison H. F. Lucy Science Team **POSTER LOCATION #232**
[Lucy: Surveying the Diversity of the Trojan Asteroids, the Fossils of Planet Formation](#) [#2061]

Lucy is a low-cost, high-heritage Phase A Discovery mission that will probe six Trojan asteroids (both L4/L5 swarms, all taxonomic types, an equal-mass binary).

Mori O. Okada T. Bibring J.-P. Ulamec S. Nakamura R. et al. **POSTER LOCATION #233**
[Science Experiments on a Jupiter Trojan Asteroid in the Solar Powered Sail Mission](#) [#1822]

Science experiments and strawman payloads were studied including mass spectrometry for the surface of Jupiter Trojan asteroid in the Solar Powered Sail mission.

Abell P. A. Mazanek D. D. Reeves D. M. Chodas P. W. Gates M. M. et al. **POSTER LOCATION #234**
[The Asteroid Redirect Mission \(ARM\)](#) [#2217]

The Asteroid Redirect Mission will visit a NEA and return a boulder to cis-lunar space for a later crewed mission to visit and return asteroid samples to Earth.

Barnouin O. S. Biele J. Carnelli I. Ciarletti V. Cheng A. et al. **POSTER LOCATION #235**
[The Asteroid Impact and Deflection Assessment \(AIDA\) Mission: Science Proximity Operations](#) [#1427]

We summarize the proximity operations needed to achieve the scientific objectives of the Asteroid Impact Mission to satisfy its mission objectives.

Herique A. Ciarletti V. AIM Team **POSTER LOCATION #236**
[A Direct Observation of the Asteroid's Structure from Deep Interior to Regolith: Two Radars on the AIM Mission](#) [#2096]

This paper reviews the deep interior radar and the shallow subsurface radar onboard the AIM-AIDA/ESA mission: science objectives, instruments concepts.

Rivkin A. S. Pravec P. Moskovitz N. Thirouin A. Scheirich P. et al. **POSTER LOCATION #237**
[The Observing Working Group for the Asteroid Impact and Deflection Assessment \(AIDA\)](#) [#2386]

An impact demo / With nobody watching it / Is not an option.

Michel P. Kueppers M. Carnelli I. Galvez A. Mellab K. et al. **POSTER LOCATION #238**
[Asteroid Impact Mission \(AIM\): The European Component of the AIDA Space Project](#) [#1204]

The ESA Asteroid Impact Mission (AIM), part of the AIDA mission, plans to characterize the binary asteroid Didymos and observe the impact by the DART impactor.

Cheng A. F. Michel P. Barnouin O. Campo Bagatin A. Miller P. et al. **POSTER LOCATION #239**
[Asteroid Impact and Deflection Assessment \(AIDA\) Mission: The Double Asteroid Redirection Test \(DART\)](#) [#2032]

DART will be the first demonstration of asteroid deflection by kinetic impact, within the joint NASA-ESA AIDA mission currently in Phase A at both agencies.

Stickle A. M. Barnouin O. S. Bruck Syal M. Cheng A. El Mir C. et al. **POSTER LOCATION #240**
[Impact Simulation Benchmarking for the Double Asteroid Redirect Test \(DART\)](#) [#2832]

We present impact simulation benchmarking results from a variety of hydrocodes in support of the NASA/ESA Asteroid Impact and Deflection Assessment mission.

Schwartz S. R. Asphaug E. Cheng A. Housen K. R. Michel P. et al. **POSTER LOCATION #241**
[*Asteroid Impact and Deflection Assessment \(AIDA\) Mission: Modeling and Simulation of Impact Outcomes — Ejecta Properties and Evolution*](#) [#3002]

We present results from the AIDA working group tasked to analyze ejecta from the DART kinetic impactor deflection test involving the asteroid Didymos in 2022.

Richardson D. C. Barnouin O. S. Benner L. A. M.
Bottke W. F. Jr. Campo Bagatin A. et al. **POSTER LOCATION #242**
[*Dynamical and Physical Properties of 65803 Didymos*](#) [#1501]

We present preliminary information on the dynamical and physical properties of binary asteroid 65803 Didymos, the proposed AIDA mission target.

Kohout T. Näsilä A. Tikka T. Penttilä A. Muinonen K. et al. **POSTER LOCATION #243**
[*ASPECT CubeSat Mission to a Binary Asteroid Didymos*](#) [#2059]

ASPECT is a CubeSat proposal to study composition of the Didymos binary asteroid as a part of the AIDA mission.