

## FY24 R&TD Innovative Spontaneous Concepts (ISC)

# Autonomy for Ion Beam Deflection of Potentially Hazardous Asteroid

Principal Investigator: Saptarshi Bandyopadhyay (347); Co-Investigators: John Brophy (312), Shyamkumar Bhaskaran (392), Carol Raymond (410), Steven Ardito (310)

### Strategic Focus Area: Innovative Spontaneous Concepts

**Objectives:** To develop autonomous closed-loop guidance, navigation, and control (GNC) algorithms for maintaining the iBeam spacecraft's desired position and attitude to deflect the potentially



hazardous asteroid (PHA); in the presence of external disturbances. We simulated the iBeam mission concept in the Multi-Spacecraft Concept and Autonomy Tool (MuSCAT) simulator.





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### **Jet Propulsion Laboratory**

California Institute of Technology Pasadena, California

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PI/Task Mgr. Contact Information: Saptarshi Bandyopadhyay (6263184174, Saptarshi.Bandyopadhyay@jpl.nasa.gov)