



# Seminar

**Natasha Bosanac**

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## **Navigating Chaos: Applications of Dynamical Systems Theory to Astrodynamics and Celestial Mechanics**

Spacecraft technology is currently in the midst of significant advances by the miniaturization of satellites, interest in orbit servicing, and demonstrated success in interplanetary travel. She has received a Bachelor of Science in Aerospace Engineering from the Massachusetts Institute of Technology, and a Masters degree from Purdue University. Natasha's research involves applying dynamical systems theory and geometric mechanics to problems in astrodynamics and celestial mechanics. Recently, such problems have included: the analysis of the impact of a many-body interaction in binary star systems, the design and construction of an interactive orbit catalog for trajectory design, and the formulation of a trajectory design framework for a low