



UNIVERSITY OF MIAMI  
COLLEGE of  
ARTS & SCIENCES

## University of Miami, Physics Department Colloquium

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**Date:** Wednesday, Nov 1, 2023  
**Time:** 4:00 pm – 5:00 pm  
**Location:** Wilder Auditorium – Rm 112, Knight Physics Building

### Planetary Defense and Space Rocks: Are We in Danger?

**Dr. Flaviane C. F Venditti**

University of Central Florida

#### **Abstract**

It is estimated that there are about 25,000 near-Earth asteroids (NEAs) larger than 140 meters. So far, about 42% of them have been discovered, almost 1000 are larger than 1km. Within the NEA category there are the potentially hazardous asteroids (PHAs), which is the main purpose of NASA's planetary defense efforts that involves several steps: discover, track, characterize, and mitigate any potential threat. In this talk I will give an overview of the near-Earth object (NEO) population and planetary defense efforts, with special focus on how radar observations are used as a key tool for physical and dynamical characterization.

#### **Biography**

Dr. Flaviane Venditti has been a Research Professor at the Florida Space Institute (FSI) since August 2023 after working for more than six years at the Arecibo Observatory, where she has been acting as the head of Planetary Radar group since April of 2021. Her research is focused on supporting NASA's Planetary Defense Coordination Office (PDCO) with physical and dynamical characterization of near-Earth objects (NEOs) using radar observations. In addition, her research interests include orbital dynamics of small bodies and asteroid deflection techniques.