



# RUMA

Rutgers Undergraduate Mathematics Association

presents...

## SYMPLECTIC GEOMETRY

A Lecture by Professor Christopher Woodward

Dept. of Mathematics, Rutgers University

### ABSTRACT:

Symplectic geometry arose as a mathematical framework for Hamiltonian dynamics in physics and is now one of the most active areas of research in mathematics, especially focused on the “mirror symmetry conjectures” relating symplectic and algebraic geometry and the “Arnold conjectures” on time-dependent Hamiltonian flows.

I’ll give a quick introduction to symplectic geometry based on the following real life problem: Put a rubber band around your favorite math book and throw it in the air, with the cover facing you, and try to catch it after it’s done a 360 degree rotation, but catching it with the cover facing you. Why is this so hard? You may wish to bring a book to the talk (either to flip or to read if the talk gets boring.)

**TUESDAY**  
**OCTOBER 1, 2019**  
**HILL 425 AT 7:00 PM**

*\*Pizza and refreshments will be served*

Join our email list! Email us at [math.ruma@gmail.com](mailto:math.ruma@gmail.com), or go to [bit.ly/RUMA2019](http://bit.ly/RUMA2019).