Abstract: Let’s talk about helmets! Why are they so important in terms of one’s brain? Funmilayo Lawal ’19 will take you through the physics of brain safety in sports, specifically looking at acceleration, impulse, the Gadd Severity Index, and the Head Injury Criterion. Current Kenyon helmet models for football and lacrosse will be available for audience interaction.

Senior Exercise Talks in Physics
FRIDAY, FEBRUARY 1, 2019 - 12:10 PM
Hayes Hall 211/213
Lunch will be served from 11:50 am to 12:10 pm

Low-Thrust Orbital Transfer and Phasing Maneuvers

Satellites are in everyday use in today’s world of ever-expanding technology. In orbit around the earth and other planets, satellites must maneuver within orbits and transfer from one orbit to another in order to perform different functions. Hohmann transfer orbits can be used to move satellites from one orbit to another with as little fuel expenditure as possible. Also, maneuvers can be performed to take a satellite out of phase with another satellite or structure and place it in phase with each other. We seek to apply these ideas specifically to low-thrust satellites in orbit to better understand how to maximize efficiency of these processes.