After achieving a series of successful ignition events at the National Ignition Facility (NIF), the field of controlled thermonuclear fusion has transitioned from a distant dream to a viable research platform for exploring burning plasmas in the lab. Yet, despite the celebrated achievements, significant challenges remain in accurately forecasting these complex experiments. In this talk, we review the basics of inertial confinement fusion (ICF) experiments and shed light on some of the many numerical and theoretical challenges that plague the field.

Background in high energy density physics, differential equations, and linear algebra would be helpful, but is not required.

TUESDAY, FEBRUARY 13
Refreshments: 4:15PM
Lecture: 4:30PM-5:30PM

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