

Seminar

Applying laser spectroscopy methods to Understand plasma physics

Evan Aguirre

Virginia Tech, VA

The rapid progression of laser technology has facilitated deep understanding of broad topics in physics. This seminar will discuss a variety of laser based diagnostic techniques to extract information from plasma systems and also highlight the extensive capabilities of laser spectroscopy. Plasma is the fundamental fourth state of matter that consists of an ionised gas with freely moving ions, electrons, and neutral particles and is heavily influenced by electrodynamics. Plasma manifests over a vast parameter range; from the sun and the solar wind, Earth's magnetosphere, and fusion devices. Plasma is used for many modern technologies and new capabilities are being developed to solve modern societal challenges. In particular, laser induced fluorescence and phase space measurements will be shown as they relate to space plasmas. Lastly, research on collaborative projects involving plasma will be discussed with a focus on the impact of numerous laser techniques to other disciplines.

Friday, Mar 22nd 2024

16:00 Hrs (Tea / Coffee 15:45 Hrs)

Auditorium, TIFR-H