

ALUMNI SEMINAR: Research Progress of Precision Sensing Based on Optical Tweezers in Vacuum

NAN LI

July 15, 2024

15:00 to 16:00

Seminar Room

As a versatile tool for trapping and manipulating neutral particles, optical tweezers have been studied in a broad range of fields such as molecular biology, nanotechnology, and experimentally physics since Arthur Ashkin pioneered the field in the early 1970s. By levitating the $i\frac{1}{2}$ sensor $i\frac{1}{2}$ with a laser beam instead of adhering it to solid components, excellent environmental decoupling is achieved. This talk will focus on the research progress of precision sensing based on optical tweezers in vacuum in our group, including acceleration and weak force sensing.

Brief introduction:

Dr. LI Nan received her Ph.D. degree in Department of Physics, Zhejiang University; 2016.3-2017.5 she worked as a postdoc in Quantum optics experimental group (led by Prof. Morgan Mitchell) in ICFO. Her research interests focus on levitated optomechanics, especially the precision sensing field.

Hosted by: Prof. Dr. Morgan Mitchell