



Physics Colloquium

Intense attosecond pulse generation from visible to soft x-rays



October 21, 2026 (Wednesday)



10:30 a.m.



**MB201, 2/F, Main Building,
Main Campus, HKU**



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Abstract:

Since the first demonstration of attosecond pulse generation and characterization at the beginning of this century, attosecond science has attracted a lot of attention due to its significant potential applications in revealing dynamics of electrons. Up to now, isolated attosecond pulses can be generated by high-order harmonic generation (HHG), free electron laser (FEL) and laser driven plasma emission. Attosecond facilities have also been constructed or proposed in different countries. In this presentation, I will show our work on generating attosecond pulses in the soft x-ray, XUV and visible regions, with potential maximum peak power reaches GW and even TW-class. These high-energy isolated attosecond pulses will be significant for high resolution spatial-temporal imaging, ultrafast dynamics capturing of electrons, and strong attosecond laser field physics.

Biography:

Yuxi FU got his Ph.D in State Key Laboratory of Strong Field Laser Physics, Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences in 2010. From 2010 to 2019, he worked in attosecond science research team of RIKEN first as a postdoctor and then as a Research Scientist. Then, he joined Xi'an Institute of Optics and Precision Mechanics (XIOPM) as a professor. He is currently the deputy director of XIOPM and Director of state key laboratory of ultrafast optical science and technology. His research interest includes strong infrared femtosecond laser technology, high-order harmonic generation and attosecond science, and ultrafast dynamics.