



Colloquium

Strong-field optical physics of monolayer two-dimensional materials

Prof. Tsing-Hua Her(賀清華)

Department of Physics and Optical Science,
University of North Carolina at Charlotte

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Time: 14:00-16:00

Abstract :

Monolayer two-dimensional (2D) materials have many fascinating physical properties. While their linear and perturbative parametric nonlinear optics are well known, non-perturbative and non-parametric nonlinearity is only in its infant stage. In this talk, I will report on our recent progress in this area, with a focus on developing 2D Keldysh theory, giant avalanche ionization, atomic-layer enhanced dielectric breakdown of bulk materials, and prospects of atomically thick warm-dense matter.