

Light-induced phenomena in superconductors: a theoretical perspective

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In this talk, I will review recent theoretical development of light-induced phenomena in superconductors based on my own perspective. In particular, I will focus on two topics: (i) the Higgs amplitude mode in d-wave superconductors, which has been recently observed in a THz-pump optical-probe experiment for Bi2212, and (ii) the superconducting-like state induced by a parametric resonance of mid-infrared phonon oscillations.