Plasmonic crystals for enhancing optical properties

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Plasmonic crystals are specially designed metal-dielectric structures that make use of surface plasmon polariton (SPP) mediation. In this talk we will present various examples including magneto-plasmonic crystals for enhanced Magneto-optical Kerr Effect and a novel magneto-optical effect that modulates the light intensity; Plasmonic crystals for ultrafast switching of SPPs and sub-THz modulation of SPPs by picosecond acoustics and plasmonic crystals with near-dispersionless modes, coupled SPPs and Fabri-Perot modes.