

Getting light to propagate where one thought it wouldn't: plasmonics, strong coupling

While until recently, the emission and absorption of light were considered intrinsic properties of atoms, molecules, or crystals, the ability to design structures at the micro- and nanometer scale has opened new ways to control the optical properties of materials. Micro cavities or photonics band gaps make it possible to modify the density of electromagnetic modes surrounding the emitters and to change their coupling with that environment. Design of microstructures allows efficient coupling of light with plasmons in metallic materials. A new field of optics is emerging from these perspectives to control light-matter interaction.

Orateur: Prof. WENGER, Jérôme (Institut Fresnel, Marseille)

Classification de thématique: Manipulating light