



SEMINAIRE ISMO

Cyriaque Genet

Institut de Science et d'Ingénierie Supramoléculaires, Université de Strasbourg & CNRS

“Chiralitons”: chiral strong coupling of valley excitons with spin-momentum locked surface plasmons

Surface plasmon excitations are offering the experimentalists new types of optical modes with inhomogeneous fields and complex beam topologies that lead to a great variety of effects. This is particularly clear in the context of optical spin-orbit interactions. Here, the concept of chirality is a key player, with fundamental implications in the context of chiral coupling. Coupling valley excitons in a transition metal dichalcogenide monolayer to spin-momentum locked surface plasmon modes exemplifies such implications. In the strong coupling regime, the onset of polaritonic states, so-called “chiralitons”, offers new possibilities for room temperature control and manipulation of valley coherences and polarizations.

Mardi 20 novembre 2018 à 11 h
Amphithéâtre du bât 520 (3^{ème} étage)
Université Paris-Sud - 91405 ORSAY Cedex