SEMINAIRE ISMO

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Optical phenomena at plasmonic interfaces

Fine tuning of optical properties of hybrid nanostructures requires understanding of plasmon-exciton interactions. In developing such nanostructures, the strong coupling phenomena play a crucial role allowing to efficiently transfer energy between plasmons and molecular excitons on a femtosecond time scale.

In this talk I will discuss modeling aspects of various optical phenomena at plasmonic interfaces using Maxwell-Bloch equations in three dimensions. Various plasmonic systems including periodic V-grooves, bowtie antennas, nanowires, and others will be considered.

In particular, I will demonstrate that one can design hybrid nanomaterials with highly pronounced Fano-type resonances using femtosecond lasers. Electromagnetic energy transport in systems composed of closely spaced nanowires in a presence of molecular excitons will also be discussed.

Attention ! Jour et horaire inhabituel

Mercredi 17 février 2016 à 14h

Bât. 351 – 2ème étage (Bibliothèque)

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