





## **SEMINAIRE ISMO**

## **Jongwook Kim**

Department of Physics, Laboratoire de Physique de la Matière Condensée (LPMC), École Polytechnique

## Structure Property Relationship in Plasmonic Semiconductor Nanocrystals

Doped semiconductor nanocrystals are an emerging class of materials hosting localized surface plasmon resonance (LSPR). Their wide spectral range (from visible to the entire IR regions) and post-synthetic tunability through doping promise new plasmon-assisted active optical materials and devices. Recent studies discovered different semiconductor species that perform efficient LSPR. However, the nanocrystals' structural impact on their LSPR remain poorly explored, which is the current focus of our research. In this presentation, we will discuss how the structural factors can collaborate to exhibit novel LSPR properties that are unseen from metal hosts and how to utilize such properties in energy and biomedical issues.

Mardi 25 février 2020 à 11 h Amphithéâtre du bât 520 (3ème étage)

Université Paris-Sud - 91405 ORSAY Cedex