





## **SEMINAIRE ISMO**

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## Engineering Nanostructures: The design of new materials from their properties

A general scientific principle taught in the areas of biology and biochemistry is that STRUCTURE DETERMINES FUNCTION. This principle and its consequences has permeated other areas and disciplines, particularly in the investigation of nanomaterials. For physicists, chemists and engineers doing research in Nanoscience and Nanotechnology, a similar relationship between structure and function is the *leit-motif* that drives the study, fabrication, characterization, and applications of novel nanoscale structures.

In this talk, aspects and ideas that motivate our research such as shape and growth processes of metallic nanoparticles (NPs), both from kinetics and thermodynamic perspectives, from the experiment, the theory and growth models will be presented. Then we will highlight some properties of NPs in which we are interested, as well as the research we are developing focused on issues of technology and social relevance such as cancer treatment and catalysis at nanoscale for environmental remediation.

Mardi 4 novembre 2014 à 11h Bât 210 - Amphi 1(2<sup>ème</sup> étage) Université Paris-Sud 91405 ORSAY Cedex