



The Abdus Salam
**International Centre
for Theoretical Physics**



**College on Multiscale Computational Modeling of
Materials for Energy Applications
4 - 15 July 2016**

Co-sponsors: INRS Canada, ESF and Psi-k

Being a "Valentino" at the Nanoscale

Francesca BALETTO

King's College London KCL, Department of Physics, London, U.K.

Abstract:

Morphologies and structural transitions, as well as chemical orderings, play a fundamental role in determining physicochemical properties of nanoclusters, or nanoparticles. We will review what is this 'new' phase of matter, why nanoparticles look so fancy and how we can model them by means of atomistic simulations, with a focus on their catalytic and magnetic properties.