



SEMINAR NOTICE

Thursday 22nd September 2018 at 16.00

Lecture Room 0B – Building H3 – Campus P.le Europa

Alloys at the nanoscale: fascinating structures and properties

Prof. Riccardo FERRANDO

Physics Department, University of Genoa, Italy



Alloy nanoparticles (often known as nanoalloys) are bi- or multi-component metallic particles in the size range between 1-100 nm. Nanoalloys present a wide variety of structures and properties [1], which make them suitable for many applications to different fields, as in catalyzing chemical reactions, in optics, in magnetism and in biomedicine. The practical use of nanoalloys has a very long history, which dates at least to the Roman age.

However, the precise characterization of their structures and properties is a recent achievement, mainly of the last two decades. Nanoalloys are now a lively research subject, with several aspects worthy of further investigation. After an overview of their main modern applications, we focus on the structural aspects of nanoalloys, showing how the interactions between atoms of different chemical species leads to the formation of the most stable structures.

