



UNIVERSITÀ DEGLI STUDI
DI PERUGIA

AVVISO DI SEMINARIO

Venerdì 30 settembre 2016 - ore 11:30
Aula E 3° piano

Mariana Verezhak

Laboratory for Interdisciplinary Physics (LIPhy), Grenoble

"Multiscale bone characterisation using X-ray and TEM imaging"

Bone is a biological tissue that is composed of collagen molecules (300 nm long, 1.5 nm in diameter), non-stoichiometric hydroxyapatite mineral nanoparticles (3 x 25 x 50 nm³) and water molecules, self-assembled in a complex hierarchical structure with up to 8 levels of organization. Hereby, the phenomenological understanding of the structure and organization of bone component phases and its relationship between each other at the various levels of hierarchical organization can help us understand the mechanical properties of bone as an organ and provide an input for the development of new diagnostics and treatment tools.

In this context, I will present our recent investigations of bone mineral phase characterized at different scales by the combination of coherent X-ray diffraction imaging, transmission electron microscopy and pair distribution function analysis.

Tutti gli interessati sono invitati a partecipare

Il Responsabile:

Dr. Marie Plazanet

Il Direttore:

Prof. Caterina Petrillo