seminario di questa settimana

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Luogo: Aula Arduino, Dipartimento di Geoscienze

Titolo

Nanostructure and water adsorption in porous materials: the case of concrete and insights from nanopoarticle simulations

Abstract

The starting point of this talk is to show that the nanoscale morphology of the cement paste in concrete (and similarly of clays and other mesostructure materials) has a strong impact on macroscopic properties related to the interaction with water, in particular hydration rate, self-desiccation, and water sorption isotherms. Having shown this, some recent advances from nanoparticle-based simulations will be presented, indicating a possible pathway to link chemical formulation with nanoscale morphology evolution (formation and ageing), overall towards a simulation-informed approach to the nano-design of concrete and other mesostructured materials.

Relatore

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http://geo.geoscienze.unipd.it/sites/default/files/flyer-EM_0.pdf

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