

Biography

La Ragione received a BS in Civil Engineering from Politecnico of Bari (Italy) and a PhD in Mechanics from Università di Firenze (Italy) in collaboration with Cornell University (USA). After post-doctoral years in U.K. and U.S.A., he joined the School of Civil Engineering at Politecnico di Bari where he is Associate Professor. His interests in granular materials evolved from his dissertation research and, for the past twenty years, he has been engaged in developing models to describe their static behavior.

Research Interests

In the recent years, I worked with colleagues from USA, India and France to develop rheological models for dense suspensions, to predict shear bands in granular materials and waves propagation in anisotropic, dense aggregates of particles. My activity has focused on theoretical models and numerical simulations

Teaching Interests

La Ragione' teaching focuses on theoretical mechanics, especially the mechanics of continuous media and the mechanics of aggregates of discrete media. He also teaches to undergraduate Engineering students Solid Mechanics and Strength of Materials.

Selected Publications

“Anisotropy and lack of symmetry for a random, aggregate of frictionless, elastic particles: theory and numerical simulations.” (with L. Oger, A. Sollazzo and G. Recchia), Proceedings of the Royal Society A November 8, 471, (2015)

“An Analytical Determination of Microstructure and Stresses in a Dense, Sheared Suspension” (with J. T. Jenkins), Journal of Fluid Mechanics, 763, 218-236 (2015)

“A Micromechanical Prediction of Localization in a Granular Material” (with V.C. Prantil and J.T. Jenkins) Journal of the Mechanics and Physics of Solids 83, 146-159 (2015)

“The incremental response of a stressed, anisotropic granular material: loading and unloading” Journal of the Mechanics and Physics of Solids 95, 147-168 (2016)

Education

BS (Civil Engineering), Politecnico di Bari (Italy) 1995

Ph D (Mechanical Engineering), Università di Firenze (Italy), 2000