Elements of Nonlinear Elasticity

Professor

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Institution

University of Pisa,
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General Information

The course will provide basic elements of nonlinear theory of elasticity. The theoretical part is accompanied by selected examples in which explicit calculations are possible.

Materials

Selected readings will be suggested during the course

Schedule

Dates	Description
13/04/2023 9:30-11:30	Introduction to the general theory of elasticity
18/04/2023 17:00-19:00	Variational formulation for hyperelastic materials and Material Indifference Principle
20/04/2023 9:30-11:30	Isotropic nonlinear elasticity. Rivlin-Ericksen representation Theorem
27/04/2023 9:30-11:30	Homogeneous deformations on a prismatic solid
02/05/2023 17:00-19:00	Materials with internal constraints. Traction of an incompressible bar
04/05/2023 11:30-13:30	Rivlin's cube
09/05/2023 17:00-19:00	Inflation of a hollow sphere
11/05/2023 9:30-11:30	Wrinkling and instability occurring in an elastic halfspace
	Total 16 Hours - 8 Credits

For any information www.indicee.unifi.it – For registration send an email to: dott-dicea@unifi.it

International Doctorate in Civil and Environmental Engineering