



UNIVERSITÀ
DEGLI STUDI
FIRENZE



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DI PISA



Technische
Universität
Braunschweig

Solid Mechanics

Professor

Email

Institution

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General Information

The course presents an introduction to the classical theories of continuum mechanics, in particular to linear and nonlinear theories of elasticity. These theories are important both for their applications and because they constitute the basis for further developments in the study of the behaviour of materials and structures.

The course is held both in presence (room to be defined in Pisa) and online.

Materials

M. E. Gurtin "An Introduction to Continuum Mechanics" Academic Press (1981).

M. E. Gurtin, E. Fried, L. Anand "The Mechanics and Thermodynamics of Continua", Cambridge U. P. (2010).

Lecture notes

Schedule

Dates	Description
12-03-2025, H 10-12	Bodies and deformations
17-03-2025, H 10-12	Motions
19-03-2025, H 10-12	Conservation of mass; linear and angular momentum
24-03-2025, H 10-12	Force, stress, balance of momentum
26-03-2025, H 10-12	Constitutive assumptions
31-03-2025, H 10-12	Change in observer
02-04-2025, H 10-12	Finite elasticity
07-04-2025, H 10-12	Linear elasticity
09-04-2025, H 10-12	Linear elastodynamics
Total 18 Hours – 3 Credits	

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