Elements of non-linear dynamics

Professor

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Institution

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General Information

The course provides some basic notions on the dynamic behaviour of non-linear mechanical systems. Perturbation methods and the most common algorithms for solving non-linear dynamic problems are also introduced.

The course (in English) will be held in mixed mode: in person (ISTI-CNR, Via G. Moruzzi 1 Pisa, Building B,gate 19, 1st floor, room C 29) and online (link provided by the teacher).

Schedule

Date	Description
03/04/25 (10:00-12:00)	Preliminary remarks. Initial value problems
04/04/25 (10:00-12:00)	Perturbation methods
08/04/25 (10:00-12:00)	Non-linear oscillators: single DOF systems
11/04/25 (10:00-12:00)	Non-linear oscillators: multiple DOF systems
14/04/25 (10:00-12:00)	Continuous systems, finite elements
15/04/25 (10:00-12:00)	Non-linear dynamic analyses. Some example applications
	Total: 12 Hours (INDICEE students: 2 Credits)

For any information www.indicee.unifi.it - dott-dicea@unifi.it