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Proposed Seminar for Ph.D. Students (4 hours)

Title
Hysteretic Materials and Metamaterials for Vibration Control of Structures, Art Objects and Sensitive Equipment

Abstract
Hysteresis is a complex phenomenon observed in many areas of science and engineering. The 4-hour seminar aims at: a) illustrating the typical complex experimental behavior exhibited by hysteretic materials and metamaterials generally adopted in aerospace, civil, mechanical, naval, and structural engineering; b) presenting a unified phenomenological modeling approach based on the use of the recently formulated Vaiana-Rosati Model of hysteresis; c) illustrating the adoption of hysteretic materials and metamaterials for the vibration control of structures and their contents, such as art objects and sensitive equipment.

Seminar Program

	Hours	Date
Part 1		
1.1 Experimental Hysteretic Behavior	1	April 2024
1.2 Unified Phenomenological Modeling Approach	1	April 2024
Part 2		
2.1 Vibration Control of Structures	1	April 2024
2.2 Vibration Control of Art Objects and Sensitive Equipment	1	April 2024

Notes:

1) The seminar will be also held online to allow for the participation of international Ph.D. students.
2) The seminar will present some first innovative results obtained in the context of PRIN 2022 Project "*Engineered basements for vibration protection of artworks and strategic sensitive equipment*".