

NOMATEN JUNIOR SEMINAR

Tuesday, April 12, 2022 13:00 (1.00PM CET)

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Strategies to tackle Materials Complexity

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Abstract:

Understanding the structural and functional properties of advanced materials is a fundamental goal of science and engineering.

In recent years, digital strategies are showing unprecedented impact along this research direction, facilitating the understanding of structure-property relationships and fostering desirable tailored material designs.

In this talk, I will discuss the recent progress achieved by combining numerical simulations, optimization techniques, artificial intelligence, and additive manufacturing methods to study diverse systems, ranging from glasses up to novel mechanical metamaterials.

Bio:

I received the PhD in Physics at the University of Insubria in Como, Italy and at the University of Montpellier in France with a cotutelle thesis project on the energy landscape of glasses.

Afterwards I was a postdoctoral fellow at the University of Milan and at the National Research Council of Italy (CNR) in Milan.

I was visiting scientist in some international laboratories including the Weizmann Institute of Science.

My research field is Physics of Complex Systems, in particular my works range from condensed matter topics up to biology and nanotechnology, through the development of theoretical-computational models.