

Dottorato di Ricerca di Interesse Nazionale

*Defense against natural risks and
ecological transition of built
environment*

PhD School 2023

Catania, 5-16 June, 2023



Università degli Studi di Cagliari



Catania, Villa Citelli
Via Tomaselli 22

The school is part of the activities that the National PhD programme offers to the students. The PhD aims to create experts in analysis, prevention, management of hazardous natural events, promoting innovative and effective solutions of the impact on constructions. The students must be able to understand the nature of the hazards, and to study the effects of natural phenomena at different levels. Basic formation includes elements of risk analysis, advanced methods for numerical simulations and advanced topics of mechanics.

The school aims to promote, together with advanced formation, the creation of research networks between the students, through the interchange of experiences and active discussions. To this aim, the last part of the school will be devoted to the presentation of problems and/or of preliminary results by the students themselves.

The courses are mainly directed to I year PhD students. The courses are open to students of other PhD programmes, who may ask to participate directly to the PhD coordinator.

For information

Prof. Massimo Cuomo,
coordinator of the National PhD Programme
Defense against natural risks and ecological transition of built
environment

Dept. of Civil Engineering and Architecture
University of Catania

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The courses

Fundamentals of Risk Analysis

24 hrs

Instructors:

Prof. Carmine Galasso Institute for Risk and Disaster
Reduction, London

Prof. Fabrizio Paolacci, Dipartimento di Ingegneria civile,
informatica e delle tecnologie aeronautiche, Università Roma 3

Nonlinear Computational Mechanics (Fluids and Solids)

27 hrs

Instructors:

Prof. Gabriele Freni, Ingegneria Civile e Ambientale, Università
KORE, Enna

Prof. Mauro De Marchis, , Ingegneria Civile e Ambientale,
Università KORE, Enna

Prof. Giovanni Garcea, Dipartimento di Ingegneria Informatica,
Modellistica, Elettronica e Sistemistica, Università della
Calabria

Prof. Leopoldo Greco, Dipartimento di Ingegneria Civile e
Architettura, Università di Catania

Prof. Massimo Cuomo, Dipartimento di Ingegneria Civile e
Architettura, Università di Catania

Nonlinear Oscillations and Perturbation Methods

15 hrs

Instructor:

Prof. Daniele Zulli, Dipartimento di Ingegneria civile, edile -
architettura e ambientale, Università degli Studi dell'Aquila