



A. D. 1308
unipg
 DIPARTIMENTO
 DI INGEGNERIA
 CIVILE E AMBIENTALE
 DIPARTIMENTO DI ECCELLENZA

CIVIL AND ENVIRONMENTAL ENGINEERING

DOCTORAL PROGRAM
 2021-2022



Massimiliano Giofrè is Associate Professor in Mechanics of Solids and Structures at Perugia University, Department of Civil and Environmental Engineering. He is chair of the Master degrees in Civil Engineering and Building-Architecture Engineering at Perugia University. He received his Ph.D. in Structural Engineering from Firenze University. Massimiliano was Associate Professor at Syracuse University, School of Architecture, in 1999, teaching the classes Introduction to Structures and Advanced Structures. He is currently leading research projects funded by the European Community and local Institutions. His research yielded chapters in books and more than 150 papers in the field of Stochastic Mechanics, Wind Engineering, Structural Identification, Structural Optimization and Structural Health Monitoring.

Location

Campus of Engineering of University of Perugia
 Latitude: 43.118177 Longitude: 12.357942
 Department Meeting Room
 and Room 1 (CEEPHD Team)

Timetable

from April 29th to May 19th

Registration information

Teams platform - CEEPHD Team (Room 1)
 There is no registration fee for the course.

STOCHASTIC PROCESSES AND EXTREME RARE EVENTS

MODULE 1

MODELING AND SIMULATION OF STOCHASTIC PROCESSES

Instructor

Massimiliano Giofrè, Ph.D., Associate Professor, UniPG
 Mircea Dan Grigoriu, Ph.D., Professor, Cornell University

Course Description

This module is aimed to provide the fundamentals of modeling and simulation of stochastic processes and fields. The module is organized in four Sections where practical work and lessons in theory are alternated. It covers both introductory and advanced topics in random variables, vectors and functions, including stationary and non-stationary models, Gaussian and non-Gaussian models, Monte Carlo simulation. Classroom practical work using programming software is proposed to deepen inside the proposed theory.

Module Schedule (18 hours, 3 CFU)

Section 1: Fundamentals on Random Variables/Vectors
 April, 29th 2022 - 14:30-16:30

Section 2: Fundamentals on Random Functions
 May, 3rd 2022 - 11:30-13:30
 May, 3rd 2022 - 14:30-16:30

Section 3: Gaussian and non-Gaussian Models
 May, 6th 2022 - 11:30-13:30

Section 4: Monte Carlo Simulation
 May, 10th 2022 - 11:30-13:30
 May, 12th 2022 - 08:30-10:30
 May, 13th 2022 - 14:30-16:30
 May, 17th 2022 - 11:30-13:30
 May, 19th 2022 - 08:30-10:30

