UNIVERSITÀ
DI PARMA

DIPARTIMENTO DI INGEGNERIA
E ARCHITETTURA

PhD programme in Civil Engineering and Architecture

Short online course (2 ECTS, 12 h) on
Limit analysis of solids and structures

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5 June 2023, 9:00-12:00 (CEST, UTC+2)
6 June 2023, 9:00-12:00
14 June 2023, 9:00-12:00
15 June 2023, 9:00-12:00

The course aims at offering an overview on limit analysis of solids and structures, with reference to classical plasticity theory with associated flow rule. Both static and cyclic loading scenarios are considered. Limit analysis of frictional contact problems is also covered in the course.
We review the fundamentals of plasticity and limit analysis with application to common structural systems. The course will help you to understand better the inelastic behavior of solids and structures, and will assist you in performing non-linear elastic-plastic analysis of trusses, beams, frames and plates as well as to apply the theorems of limit analysis to such structures.
Details of the course can be found at this Syllabus.
In the last lecture of the course (scheduled on 15 June), **two seminars** will be given by prof. Gabriele Milani (Politecnico di Milano), *Upper and Lower Bound computational limit analysis applied to masonry structures*, and by prof. Francesco Marmo (Università di Napoli Federico II), *Thrust Membrane Analysis (TMA) of masonry vaults*.
At the end of the course, an assessment of students' learning will be formulated on the basis of an oral examination.

Students interested in participating to the course should register using this form by 3 June.

Lectures will take place in room B/1 (Dept. Engineering and Architecture, University of Parma) and on Teams platform.
Instructions will be sent to participants in due time.