# Short course:
## *Theory and Practice of Signal Processing for Numerical and Experimental Seismic Simulations*

The present short course consists of 24 hours of both theory and practical applications related to the signal processing procedures, commonly adopted for the analysis of results returned by both numerical and experimental seismic simulations. Different approaches will be considered, by analyzing the outcomes of some experimental tests carried out at the



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Laboratories of EUCENTRE Foundation in Pavia (Italy). More specifically, tests on isolation devices, hybrid experimental simulations and shake table tests will be considered, in order to provide some easy-to-use procedures which lead to the full dynamic characterization of the tested specimens, for all the considered testing techniques.

| *Week #1* | Topic: | Time: |
|---|---|---|
| Monday 9/01/2023 | Overview of testing techniques on Isolation Devices | 14:00 – 16:00 |
| Tuesday 10/01/2023 | Input signals for dynamic tests on Isolation Devices | 14:00 – 16:00 |
| Wednesday 11/01/2023 | *Laboratory*: data processing of tests on Sliding Isolator | 14:00 – 16:00 |
| Thursday 12/01/2023 | Overview of the Hybrid Testing Technique | 14:00 – 16:00 |
| Friday 13/01/2023 | Computation of Statically Condensed mechanical properties | 14:00 – 16:00 |

| *Week #2* | Topic: | Time: |
|---|---|---|
| Monday 16/01/2023 | *Laboratory*: assessment of the response of a base-isolated building | 14:00 – 18:00 |
| Tuesday 17/01/2023 | Overview of shake-table testing techniques | 14:00 – 16:00 |
| Wednesday 18/01/2023 | Definition of the main response parameters of shake-table tests | 14:00 – 16:00 |
| Thursday 19/01/2023 | *Laboratory*: data processing of shake table tests on a steel frame | 14:00 – 18:00 |
| Friday 20/01/2023 | Concluding remarks | 14:00 – 16:00 |

The short course will be both in person (@ University of Pavia) and remotely streamed (@ zoom platform). To subscribe: postlaurea@iusspavia.it