INTERNATIONAL SCHOOL ON SOIL-STRUCTURE AND FLUID-STRUCTURE INTERACTIONS IN OPENSEES

2026 SFSI-OS

28 June-1 July 2026

Riva del Garda, Italy

Organising Committee

DAVIDE NOÈ GORINI
University of Trento
Italy

PEDRO ARDUINO
University of Washington
United States

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University of the Andes,
Chile

NICOLA TONDINI
University of Trento
Italy

GUIDO CAMATA
University of Pescara
Italy

Motivation and goal

OpenSees is an evolving numerical framework for advanced assessment of civil engineering structures against natural hazards, in which the profound interaction of the urban fabric with the surrounding environment can be simulated through multiple levels of complexity.

SFSI-OS will build on the success of the previous editions (2023 SSI-OS and 2024 SSI-OS), offering a renewed vision of the initiative through the in-depth discussion of high-impact challenges: dynamic soil-structure, fluid-structure interactions and related cascade effects – earthquake, hydrodynamic (tsunami and flood) and fire loading.

Each Thematic Session will involve hands-on, interactive implementation of practical procedures to tackle these numerical challenges.

Technical Committee

Dr. Davide Noè **Gorini**
Prof. Pedro **Arduino**
Prof. José **Abell**
Dr. Frank **McKenna**
Dr. Silvia **Mazzoni**
Prof. Nicola **Tondini**
Prof. Liming **Jiang**
Dr. Massimo **Petracca**
Prof. Andre **Barbosa**
Dr. Patrick **Covi**
Dr. Justin **Bonus**
Dr. Giuseppe **Lombardi**
Dr. Andrea **Marchi**

General Affairs Committee

Dr. Enza **Zeolla**
Dr. Giuseppe **Lombardi**
Dr. Andrea **Marchi**

SIMSG ISSMGE
TC 203 209 309

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Programme Overview

Instructions on the registration process are available at this link.

June 28, afternoon
OPENSEES SETUP AND FUNDAMENTALS: GETTING READY FOR SFSI-OS

June 29
SOIL-STRUCTURE INTERACTION

Session 1 - *Continuum-based modelling of soil-structure interaction problems* **(P. Arduino, D. N. Gorini, G.Lombardi)**

Session 2 - *From local to territorial assessment: HPC, parallel computing and low-order modelling* **(J. Abell, D. N. Gorini, G. Lombardi)**

June 30, morning
SOIL-STRUCTURE INTERACTION

Session 3 – *Collaborative use of OpenSees and new features* **(F. McKenna, S. Mazzoni, D. N. Gorini , J. Abell)**

June 30, afternoon
WATER-STRUCTURE INTERACTION

Session 4 - *Principles and platforms for Computational Fluid-Dynamics using OpenSees* **(A. Barbosa, A. Marchi, J. Bonus)**

Session 5 - *Simulating the impact of water-induced actions on the performance of soil-structure systems* **(J. Bonus, A. Marchi)**

July 1, morning
FIRE-STRUCTURE INTERACTION

Session 6 - *Structural fire engineering and modelling strategies in OpenSees Fire* **(N. Tondini, L. Jiang)**

Session 7 - *Interacting session* **(P. Covi, L. Jiang)**

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Venue *Astoria Park Hotel Spa Resort*

an elegant retreat in Riva del Garda, on the northern shore of Lake Garda.

Nestled between the blue waters of Lake Garda and the spectacular peaks of the Dolomites, Astoria Hotel offers a privileged location: just a short walk from the historic center of Riva del Garda and the lakefront.

Set within an extensive private park with centuries-old trees, the resort blends modern comfort, pure relaxation, and timeless Italian style.

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