

4th Croatian Conference on Earthquake Engineering 4CroCEE



Monday, 22 March 2027 - Thursday, 25 March 2027

Opatija

Conference Topics

Seismic Performance of Structures

Historical Structures

Repair and Strengthening of Structures

Experimental Techniques for Characterization of Materials and Structures

Geotechnical Earthquake Engineering

Lessons Learnt from Earthquake Disasters

Seismic Loss and Risk Analysis

Engineering Seismology

Preparedness and Emergency Management

PhD special session

Special session: Post-Earthquake Reconstruction Process

Special session: DEM Based Approaches for Resilient Structures

Organisers:

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Description

This special session explores emerging and advanced applications of the Discrete Element Method (DEM) in civil and structural engineering, with a focus on addressing the challenges of resilient, sustainable, and next-generation infrastructure systems. Topics of interest include, but are not limited to, masonry structures, concrete and composite materials, fracture and damage processes, contact and interface mechanics, seismic and dynamic response, soil–structure interaction, as well as coupled DEM-based computational approaches. Contributions combining numerical simulations with experimental validation, data-driven methods, or digital engineering workflows are particularly encouraged.

The session seeks to highlight how DEM and related computational methods can contribute to the future of performance-based engineering, hazard mitigation, and the development of safer and more adaptive civil infrastructure.