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Advanced Methods for Structures under Earthquake Loading

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ABSTRACT

In the last decades reinforced concrete, masonry, steel, timber structures and others have been widely used, with and without seismic provisions. In the last years the damages observed during earthquakes have clearly demonstrated the due to a different number of reasons, related with the design strategies, construction practices, influence of the non-structural components among. These problems have been well recognised by the research community, and therefore, in the last two decades there has been developed several advances on the analysis methods to support the design of new structures and the assessment of existent ones provided the opportunity to adopt more sophisticated methodologies, with continuous evolution and improvements needed.

The present Thematic Session aims to collected papers focused on the application and development of numerical methods study the earthquake behavior in the design of new structures, bridges and special structures, numerical models for earthquake response simulation, assessment of existing structures, retrofitting, seismic strengthening, infrastructures, and lifeline systems, among other topics.