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Special Session:
Recent Advances in Rocking Structures

Organizers

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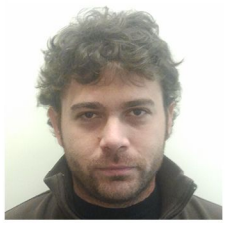

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ABSTRACT SUBMISSION :
https://iconhic.com/2019/authors-area/

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Special Session description

This session will focus on recent advances in the dynamics of rocking structures. When subjected to earthquake shaking, freestanding or weakly restrained structures may uplift and set into rocking, which can significantly reduce the seismic shears and moments that develop at the base of the structure. Research on rocking and uplifting structures continues to grow as the problem finds widespread application in various areas of earthquake engineering, including: explaining the astounding seismic resilience of classical Greek temples, quantifying the overturning fragility of components in nuclear and other critical facilities, designing alternative passive control systems that utilize rocking isolation to protect bridges and buildings, describing the out of plane behavior of masonry walls.

The main goals of this session are to:

- present advances in the dynamics of different types of rocking structures or nonstructural components;
- review recent experimental and analytical research on the subject;
- discuss different rocking-isolation strategies.