

Session ID: BCI-4

Title

SEISMIC POUNDING OF BRIDGES

Convenors

C. Nuti ¹, A. Kappos ²

Description

Seismic pounding is a critical issue in the design and performance of bridge infrastructure during earthquakes. The proposed technical session aims to provide a platform for researchers, engineers, and practitioners to exchange knowledge and share experiences on the issue of seismic pounding in bridge structures. The session will cover a range of topics related to this phenomenon, including analytical and experimental investigations, numerical simulations, and practical mitigation measures.

Seismic pounding can have a significant impact on the performance of bridges during earthquakes. The collision of adjacent bridge decks or between the deck and abutment can cause severe damage to the structure, leading to potential collapse and loss of life. Therefore, understanding the factors that influence the occurrence of seismic pounding and developing effective mitigation measures is essential for ensuring the safety and resilience of bridge infrastructure.

The session will provide a forum for researchers, engineers, and practitioners to discuss the latest advances in the understanding of seismic pounding of bridges, as well as strategies for mitigating its effects. Topics of interest will include but are not limited to:

- Experimental investigations of seismic pounding in bridges
- Analytical models for predicting seismic pounding in bridges
- Numerical simulations of pounding effects on bridge structures
- Case studies of seismic pounding in real-world bridge structures
- Mitigation measures for reducing seismic pounding effects in bridges
- Code provisions and guidelines for addressing seismic pounding in bridge design

The session will contribute to the advancement of the state-of-the-art in this field and promote the development of effective mitigation measures for improving the safety and resilience of bridge infrastructure.

Invited Speakers

T. Isakovic ³, E.G. Dimitrakopoulos ⁴, G. Milonakis ⁵, A. Sextos ⁵, C. Demartino ¹, D. Lavorato ¹

Affiliations

¹ Roma Tre University, Rome, Italy, ² Khalifa University, Abu Dhabi, United Arab Emirates, ³ University of Ljubljana, Ljubljana, Slovenia, ⁴ Hong Kong University of Science and Technology, Hong Kong, Hong Kong, ⁵ University of Bristol, Bristol, United Kingdom