

Optimal Management and Retrofitting for Resilient Bridge Infrastructures

ABSTRACT:

The session “Optimal Management and Retrofitting for Resilient Bridge Infrastructures” at ARCH25 focuses on strategies and technologies to improve the resilience and lifespan of bridge infrastructure for both existing and new structures.

The session explores best management practices, including the use of advanced data-driven methods for maintenance and decision making. In particular, management methods based on innovative numerical approaches, such as those related to artificial intelligence, for safety prediction and (predictive) maintenance planning.

Innovative retrofitting techniques aimed at improving structural performance based on current and future load demands, environmental conditions, and potential natural hazards are also illustrated.

The discussion will also emphasize sustainability, cost-effectiveness, and resilience, with the goal of developing durable solutions for bridge infrastructure maintenance worldwide.

CHAIRS (in alphabetic order):

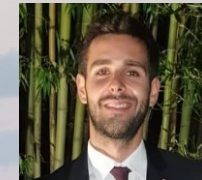
- **Bruno Briseghella**

bruno@fzu.edu.cn,
*Professor, Fuzhou University,
College of Civil Engineering,
Fuzhou, China*



- **Raffaele Cucuzza**

raffaele.cucuzza@polito.it,
*Research Associate, Politecnico di
Torino – DISEG, Turin, Italy*



- **Marco Domaneschi**

marco.domaneschi@polito.it,
*Associate Professor, Politecnico di
Torino – DISEG, Turin, Italy*



- **Giuseppe Carlo Marano**

giuseppe.marano@polito.it,
*Professor, Politecnico di Torino –
DISEG, Turin, Italy*



ARCH25
GENOA

11TH INTERNATIONAL CONFERENCE ON ARCH BRIDGES

from preservation of historical legacy to new forms

30th September - 3rd October 2025 GENOA (IT)



<https://www.arch25.com/>