

Titolo: Frontiers in seismic isolation and energy dissipation technologies

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Abstract: Seismic isolation and energy dissipation systems have significantly advanced the design and retrofitting of earthquake-resilient structures, providing effective solutions for reducing seismic damage and improving safety. Recent advancements in these technologies and design methodologies are expanding their capabilities, aligning with the requirements of a more resilient and sustainable built environment.

This special session aims to bring together academics, researchers, practitioners, and manufacturers to share cutting-edge developments, promote collaboration, and discuss the latest innovations in seismic protection systems. Submissions are invited across all aspects of the field, spanning novel device designs, experimental studies, advanced modeling methods, and practical implementations, aiming to foster discussions on the evolution of seismic isolation and energy dissipation technologies and to inspire innovative solutions and optimized design approaches for resilient communities. The session welcomes presentations on a broad range of topics, including:

- development and application of novel seismic isolation and energy dissipation devices;
- experimental assessment and qualification testing of advanced anti-seismic systems;
- design procedures for seismically upgrading existing structures;
- case-studies and emblematic examples of seismic isolation and energy dissipation systems in practice;
- advances in numerical modelling and simulations of the real experimental response of seismic isolation and energy dissipation systems;
- use of isolation/dissipation devices for seismic protection of non-structural components;
- recent developments in standards and codes.