Session ID: CMS-2

Title
CUTTING-EDGE RESEARCH ON BUCKLING-RESTRAINED BRACES (BRBS) AND THEIR APPLICATIONS

Convenors
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Description
Developed in the late 1980s, Buckling Restrained Braces (BRBs) are now commonly used in seismic regions around the world including in China, Japan, New Zealand, Taiwan, and the USA. Design codes, test-protocols and guidelines have been developed in many of these countries for these energy-dissipating devices. Although a number of issues with BRB systems were discussed at the 17WCEE in 2 dedicated sessions, various issues remain. These include (i) BRB performance criteria including out-of-plane stability, bulging failure, strain distributions, effects of BRB scale, friction coefficients between the core and the restrainer, and so on. (ii) Various types of BRB including all-steel BRB, Mass-Timber BRB, Self-Centering BRB, Multistage BRB, and so on. (iii) BRBF applications for Rocking-Frames, Damped Outrigger, Damped Diagrid, Spatial Structures and their optimal design approaches. Such studies from each country need to be compared, and ongoing research discussed.

Invited Speakers
M. Bruneau [3], K.-C. Tsai [4], Z. Qu [5], O.C. Celik [6], E.M. Marino [7], B. Saxey [8], G.-Q. LI [9], J. Zhao [10]

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