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Challenges on the numerical simulation from small to large-scale Civil Engineering structures

Scientific area: Computational Solids And Structural Mechanics

The numerical simulation of Civil Engineering structures has developed considerably over the last few years. The techniques and approaches used to simulate small up to large-scale structures are being updated and improved to support the engineers and their decision-making in design, rehabilitation, and maintenance. The evolution of numerical simulation has allowed the engineering industry to reach complex projects and raise the bar for the development of efficient, sustainable, and safe structures. Also, recent algorithms are supporting the reduction of computational time and effort, which plays a critical role in the economy of nowadays. In this framework, this mini-symposium aims to discuss the recent advances and challenges in the numerical simulation of Civil Engineering structures subjected to several types of loading (i.e. static, dynamic variable, seismic or accidental), as well as structural implications in ultimate or serviceability states and respective normative framework, which should define further critical developments under specific thematic lines.

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