

**Predavanja u HDMu:**

## **Challenges in Modeling the Infill Walls Contributions in RC Buildings Under Seismic Loadings**

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### **ABSTRACT**

One of the main challenges in earthquake risk mitigation design of new buildings and assessment of existing ones must be based on reliable tools. Particular attention should be given to RC frame structures with masonry infill panels, as demonstrated by their poor performance in recent earthquakes in Europe. Understanding the seismic behavior of masonry-infilled RC frames presents one of the most difficult problems in structural engineering. Analytical tools to evaluate infill-frame interaction and the failure mechanisms have been proposed along the years however it still needs to be further studied. With this presentation it is intended to show the current research developed to support the implementation and calibration of simplified macro-models that takes into account the in-plane and out-of-plane behavior of the infill panels and its interaction with the surround RC frame under seismic loadings.