Controlling seismic waves with structure geometry and material properties in large scale metamaterials

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Abstract

Controlling seismic waves with structure geometry and material properties in large scale metamaterials is a short overview of the results of a collaboration between mathematicians, physicists, and civil engineers and an introduction on some different themes like seismic & acoustic metamaterials, the topological beam splitting & the topological rainbow effect for the localization of the symmetry protected edge waves, the Zero frequency bands gaps and the Inertial amplification.