

Mini-Symposium 6-2: Elastic Metamaterials and Topological Aspects of Waves

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Elastic Metamaterials is a vibrant topic at the frontier between solid mechanics, wave physics, and asymptotic analysis. Micro-architecture or micro-structure of the material on the scale of the wavelength or below (be it periodic, quasi-periodic, hyperuniform, or random) allows controlling waves in unique ways. While many such problems are now well understood in acoustics, the vector character of the elastic wave equations means that many challenges remain. This symposium will present recent works on the dynamics of micro-architected solids, from theoretical, experimental and computational points of view, or discuss specific applications. This symposium will also focus on recent advances in the understanding of topological invariants, their influence on the stability of topological modes, as well as on applications of these.