

Watching waves confined in phononic cavities

Introduce

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Interviene

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Abstract

Surface-acoustic and bulk-acoustic-wave wave devices based on waves in resonators have found extensive application in high-frequency signal processing. In particular phononic crystals, metamaterials and micron to sub-micron structures exhibit interesting physical properties, such as omnidirectional stop bands or tight wave confinement, that allow potential improvements to these devices. Here we present results of real-time imaging and tracking of optically-induced vibrations at frequencies from 10 MHz up to ~100 GHz in various novel micron-scale cavity geometries: phononic-crystal slab cavity structures, metamaterial extraordinary-transmission structures, sub-micron fibers and planar circular structures.

Seminario

Lunedì 11 aprile 2016

Sala Riunioni, ore 12.00

Via dei Musei 41 - Brescia



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