

Elastic waves in spherically symmetric elastic spacetimes

Irene Brito

(Universidade do Minho)

We consider spherically symmetric spacetimes with elastic matter and determine the propagation speed of elastic waves in the radial direction. The propagation speed depends on the density, radial pressure and elasticity tensor components. The local causality condition for the speed of elastic waves is analysed for shear free spherically symmetric elastic solutions of the Einstein field equations.