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**Finite element computation of the vibration modes of a fluid-solid system.** (English)

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Summary: We solve the interior elastoacoustic problem by a finite element method which does not present spurious or circulation modes for nonzero frequencies. It consists of classical triangular Lagrangian elements for the solid and lowest order triangular Raviart-Thomas elements for the fluid. Transmission conditions at the fluid-solid interface are taken into account in a weak sense. Numerical results for some test examples show the good performance of the proposed methodology.

**MSC:**

74S05 Finite element methods applied to problems in solid mechanics

Cited in **33** Documents

74F10 Fluid-solid interactions (including aero- and hydro-elasticity, porosity, etc.)

**Keywords:**

transmission conditions; triangular Lagrangian elements; lowest order triangular Raviart-Thomas elements

**Full Text:** [DOI](#)

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