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Variational approach to shape derivatives for elasto-acoustic coupled scattering fields and an application with random interfaces

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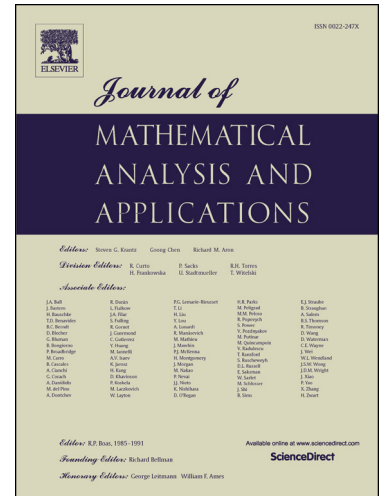
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Highlights

- Shape derivatives of solutions to elasto-acoustic coupled system are proposed.
- The characterization of shape derivatives is derived for both the differential form and the Euclidean form.
- Shape derivative for stochastic elasto-acoustic equations is firstly studied.
- The variational approach and perturbation characterized by the velocity method are applied.
- Different boundary regularities are discussed.

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