Abstract Submitted
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Elastic scattering in heterogeneous media: numerical tests KUNAL BHATNAGAR, CHRISTIAN POPPELIERS, Angelo State University — We hypothesize that the degree of elastic scattering is a function of the size scale of heterogeneities. To test this hyptothesis, we simulated elastic seismic waves in media whose heterogenieties varied in size and then compute beam power using common beam forming techniques. By stacking the seimsic data along a given beam direction, we determined the power of the RMS stack as a function of incident angle. We find that when the size scale of the scattering heterogeneities approach the wavelength of the elastic wavefield, the degree of scattering increases. The increased scattering expresses itself as a greater degree of off-incident arrivals.

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