



Imaging medium changes at depth using 3-D probabilistic body- and surface-wave sensitivity kernels

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In the context of seismic monitoring, recent studies made successful use of seismic coda waves to locate medium changes on the horizontal plane. Locating the depth of the changes, however, remains a challenge. We build 3-D sensitivity kernels as a linear combination of body- and surface-wave sensitivity (Obermann et al. 2016) and show their potential and limitation for imaging purposes at depth. We use both, numerical simulations and real-data applications.

Obermann, A., Planès, T., Hadziioannou, C., Campillo, M. Lapse-time dependent coda wave depth sensitivity to local velocity perturbations in 3-D heterogeneous elastic media, *Geophysical Journal International*, 207, 59-66, doi: 10.1093/gji/ggw264