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Dynamic homogenization of a complex geophysical medium by inversion of its near-field seismic response

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Research highlights

- ▶ city thought of as an inhomogeneous layer overriding the site
- ▶ homogenization of this layer treated as inverse problem
- ▶ minimization of discrepancy of seismic responses of city and homogeneous layer
- ▶ leading to retrieval of dispersive effective shear modulus and complex velocity functions of layer
- ▶ these functions are of mixture theory type in quasi-static conditions
- ▶ their dispersion enables to account for resonances in the city
- ▶ good agreement between seismic responses of city and homogenized layer

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