0. **Recently solved problem:** Single-frequency approximation of the coupling ray theory. Coupling-ray-theory travel times and polarization vectors.

1. Including the single-frequency approximation of the coupling ray theory into the interpolation within ray cells in anisotropic media.


3. First-order perturbation of polarization vectors in the coupling ray theory.

4. Linearized inversion based on wavefield sensitivity to structural Gabor functions (sensitivity Gaussian packets).

5. Applicability of the Born approximation: Study of the nonlinearity of ray-theory seismograms with respect to perturbations of the velocity model.