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# Full Waveform Inversion with wavefield gradients

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# Unlike translations

- Wavefield gradients are unavoidably affected by small-scale heterogeneities.
  - both phase and amplitudes of wavefield gradients can be altered
  - relevant for both point-measured and array-derived measurements
- Structures smaller than the minimum wavelength cannot be resolved in FWI.
  - effect from unresolvable structures needs to be explained with resolvable structures
  - model recovered from inversion incorrect
- **Correctors** can help remove the effect of small-scale structures on wavefield gradients.
  - invert for both structure and correctors
  - results in a correct final model