Multiscale Traveltime Inversion: Synthetic Example

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Multiscale Traveltime Inversion

Inversion with large grid size:
- Run faster and smaller memory
- Large number of iterations is affordable
- Provide a good initial model

Inversion with small grid size:
- Run slower and larger memory
- Provide a higher-resolution model
True Model: $dx = dz = 10 \text{ m}$, $nx = 500$, $nz = 500$
Inverted Model: $dx = dz = 50$ m, $nx = 100$, $nz = 100$
Inverted Model: $dx = dz = 10$ m, $nx = 500$, $nz = 500$
True Model: $dx = dz = 10$ m, $nx = 500$, $nz = 500$