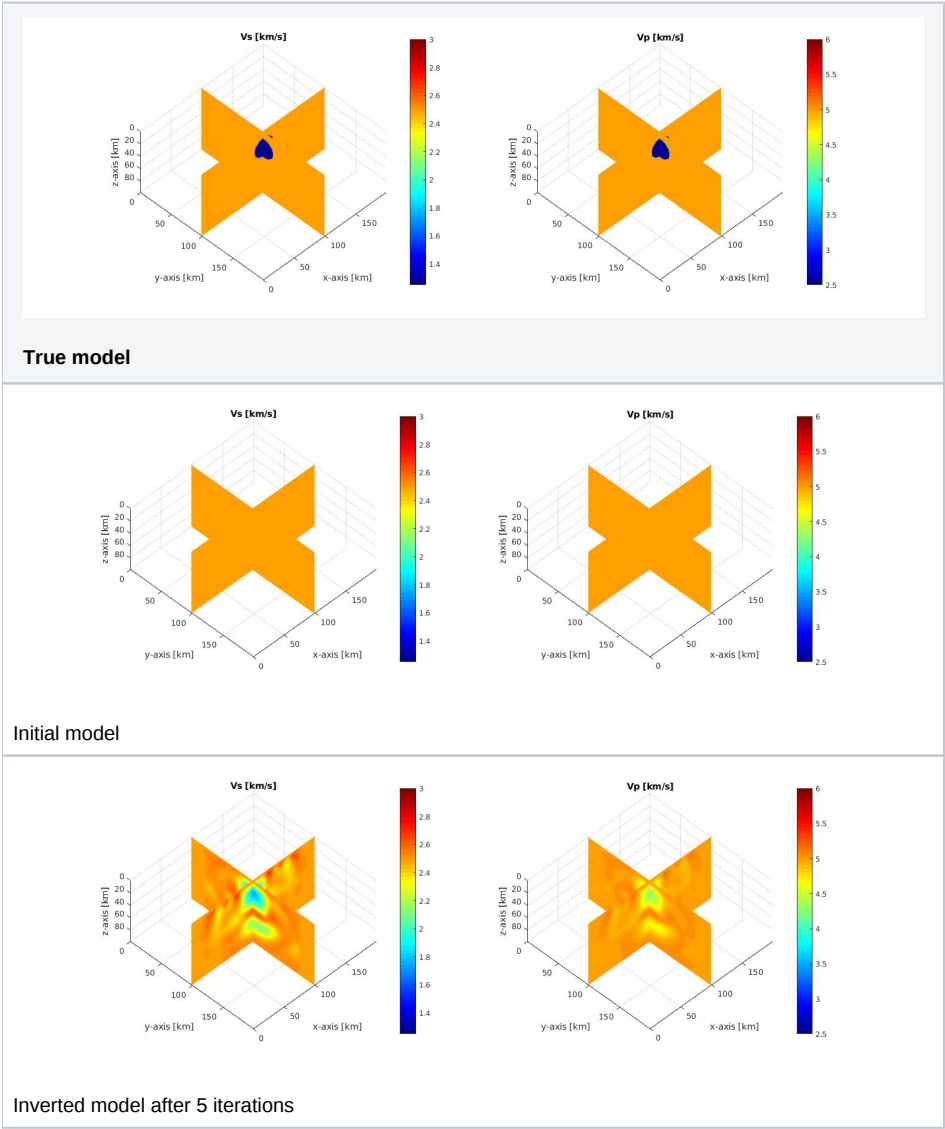


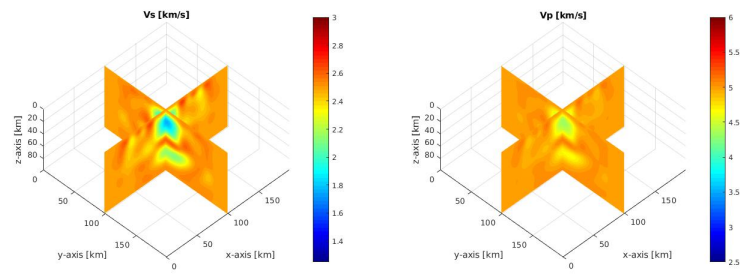
Inverted results for a 200x200x100 domain, completed 3 runs

Simultaneously and dependently invert Vs and Vp models for 3 runs at different frequency bands, starting at low frequency band 0-0.05Hz, then moving to 0-0.1Hz and finishing at 0-0.2Hz. A normalized error function is calculated based on forward simulation filtered at 0.2 Hz for all iterative inverted models.

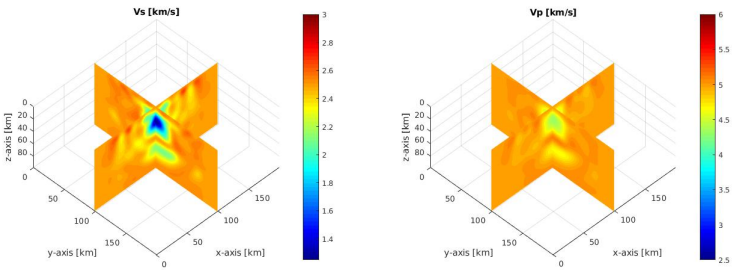
Inversion at frequency band 0-0.05Hz for 5 iterations:



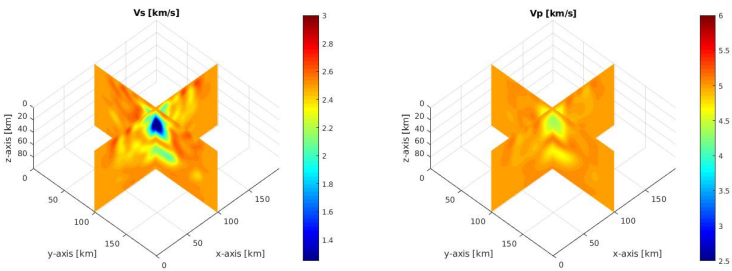
Inversion at frequency band 0-0.1Hz:



Initial model for the second inversion

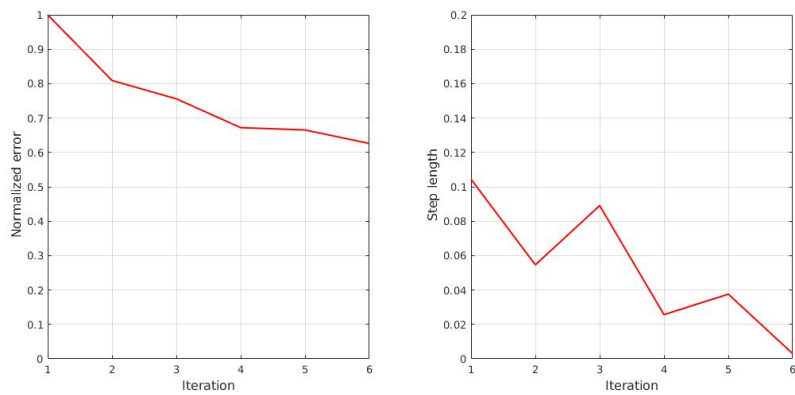


Inverted model after 1 iterations

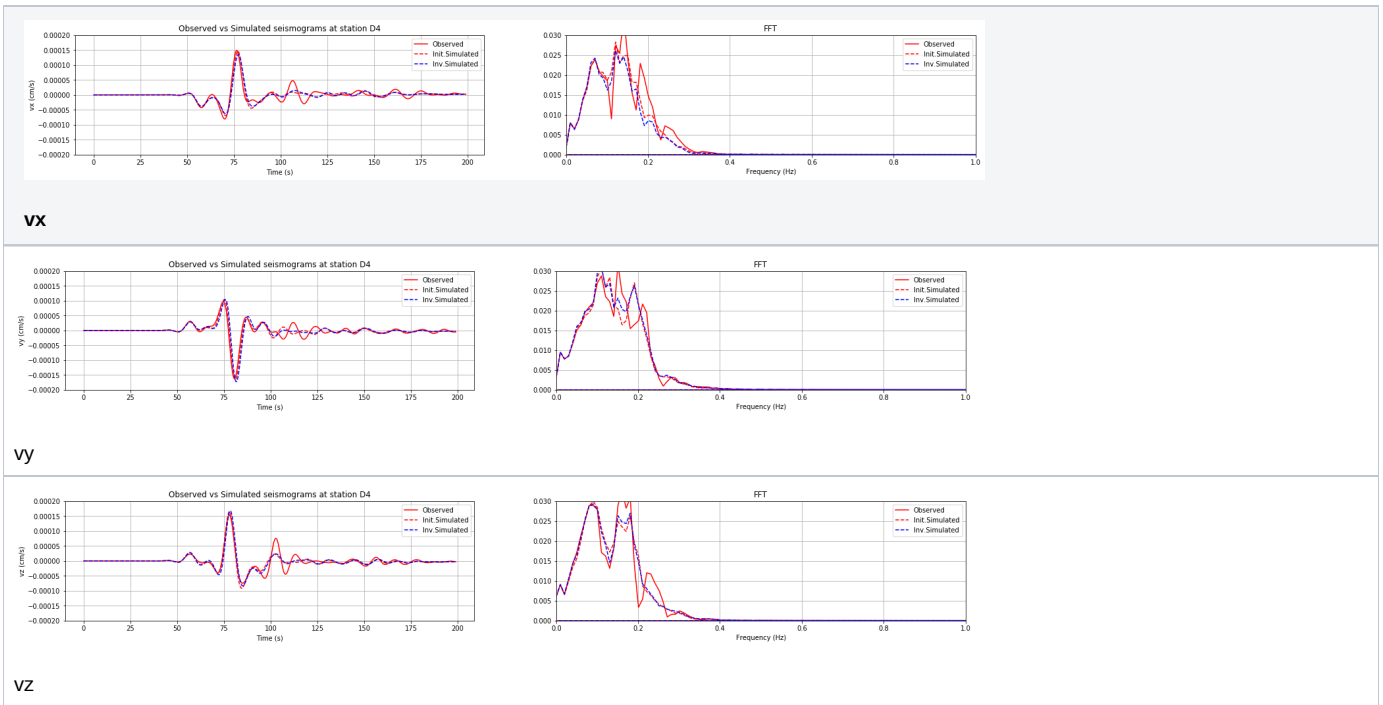


Inverted model after 6 iterations

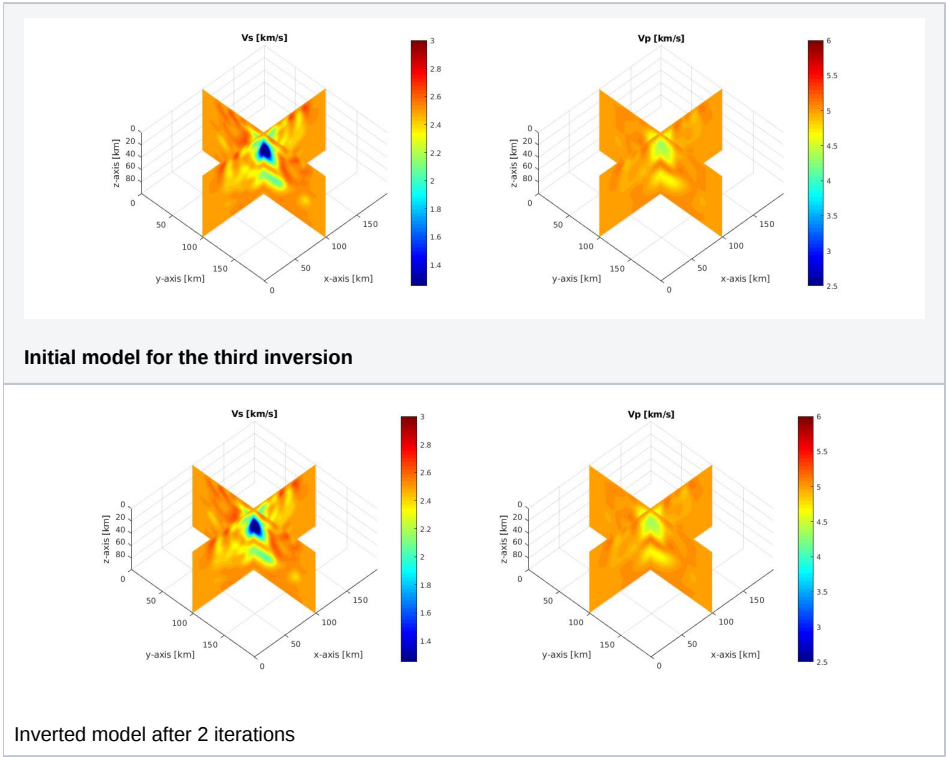
The normalized error and step length along the iterations



Waveform comparison

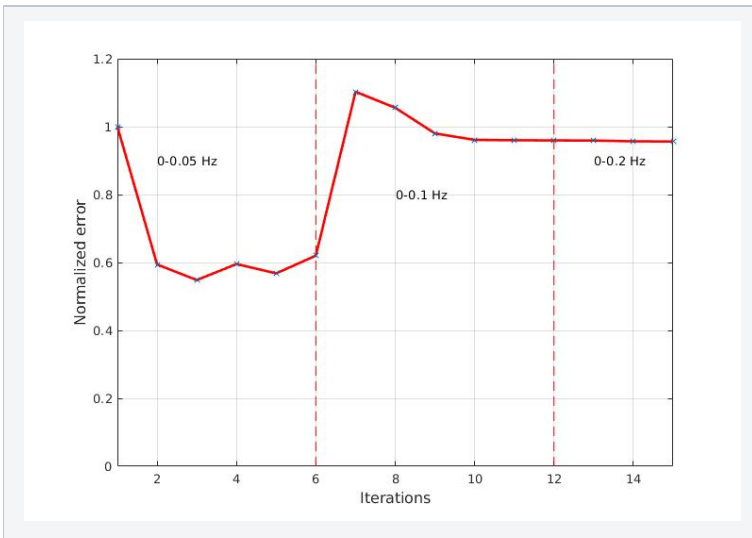


Inversion at frequency band 0-0.2Hz: The normalized error and step length along the iterations

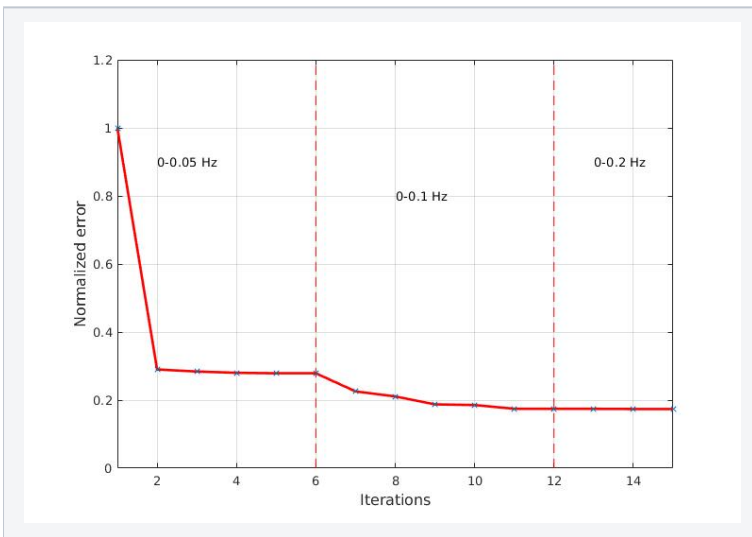


Resuming result for synthetic study of a homogeneous model with embedded low-velocity sphere:

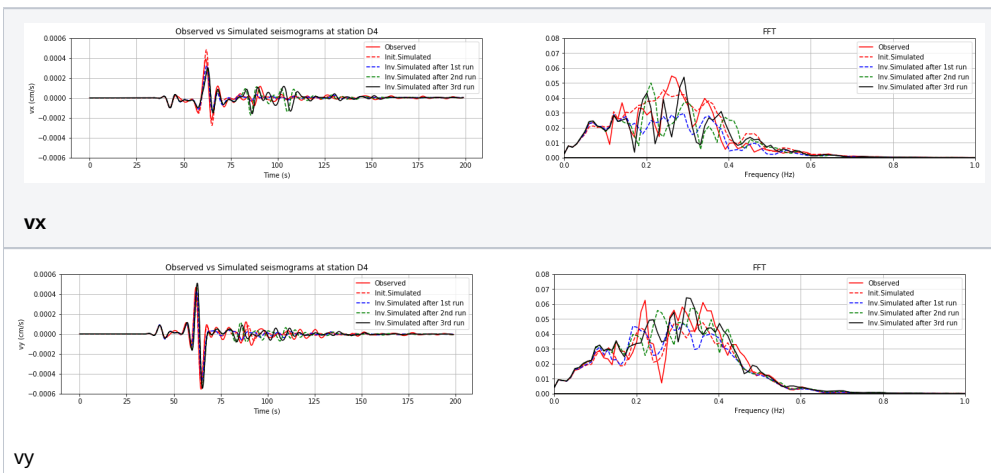
The normalized error curve shows the actual errors between observed and simulated data filtered at a uniform frequency bandwidth from 0 - 0.2 Hz according to all iterative models in 3 inversion runs.

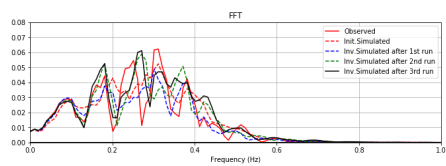
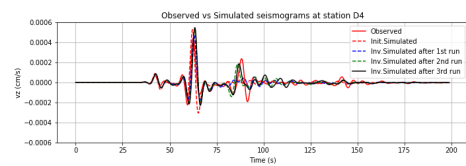


Notice: since there are gaps at the turning points between the frequency bands and the error function does not always decrease along the iterations, connecting the error curves for each individual inversion run would be a better way to present the convergence of the method.



Waveform comparison for observed data and simulated data from different inversion stages:





VZ