



Interferometric imaging with seismis and seismo-electromagnetic waves

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Interferometric Seismological imaging methods use the correlation between recorded seismic coda from distributed seismic events to obtain active response from one station to another. Retrieving the Green's function response between two stations by correlation can also be used for seismo-electromagnetic waves. Seismic waves generate fluid-solid motion in a fluid-saturated porous medium and the moving charges induce an electromagnetic field. We investigate the correlation of seismo-electromagnetic effects with acoustic waves. Acoustic reflection and transmission experiments in the 100 kHz range are performed in water to compare the direct response between two hydrophones and the correlation of the response on the hydrophones due to a limited number of noise sources. we looked for criterion for detecting the stationary phase zones by looking at the convergence of averaged cross correlation.