



## Co-seismic velocity changes during the 2009, Mw 6.3 L'Aquila earthquake inferred from seismic noise cross-correlations

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We retrieved the crustal velocity variations by analyzing the cross-correlations of more than 2 years of continuous seismic records. The studied period includes the 6th of April, 2009, when a Mw 6.3 L'Aquila earthquake stroke the area under study.

Our estimates show evidence of a decrease of seismic velocities at the time of the occurrence of the earthquake's mainshock.

By performing the analysis for different frequency bands between 0.1 and 1 Hz, we observe that the velocity change is strongest at relatively short periods (0.5-1 Hz) suggesting that it is mainly related to the damaging of shallow soft layers by the co-seismic shaking.