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Local ambient noise tomography using a dense array : the MAUPASACQ experiment

pierre boué (1), jacques brives (1), laurent stehly (1), maximilien lehujeur (2), sebastien chevrot (2), matthieu sylvander (3), and magali collin (4)

(1) Université Grenoble Alpes, ISTerre, Ondes et Structures, Gières, France (jacques.brives@univ-grenoble-alpes.fr), (2) CNRS, Observatoire Midi Pyrénées, GET, Toulouse, France, (3) Observatoire Midi Pyrénées, IRAP, Toulouse, France, (4) Total, Pau, France

Located in the Mauleon basin (SW France) the MAUPASACQ experiment is a passive seismic network consisting of 435 stations (197 short-period seismographs, 190 geophone nodes and 48 broadband stations) over an area of 1500km^2 and recording for a period of 6 months. The complexe combination of differents seismic devices and mostly the use of geophones in a such large area lead to a complex ambient noise dataset. In order to take fully advantage of this unique dataset we computed both ambient noise correlation (c1) and correlation of correlation (c2). The combination between the c1's and c2's allow us to increase surface wave dispersion measurements and the ray coverage inside the array. From this new methodology preliminary ambient noise tomographic results are shown and discussed.