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Catalog of 3C rotations measured at the LSBB's antenna.

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Rotational seismology refers to the study of the 3 components of rotation that are part of the seismic wave field equation (Aki and Richards, 2002). Using the Geodetic Method (GM) [Spudich et al, 1995], that is, using spatial finite differences of the local ground motions, the 3C of rotations were calculated at the dense broadband seismic array of the LSBB (Low background noise underground research Laboratory, France, <http://lsbb.eu>). A catalog of 3C rotations was created by systematically applying this method to several seismic events. The uncertainty of the rotation measurements has been estimated through a sensitivity analysis. This catalog will be presented and illustrated using examples. The analysis of the rotational motions relatively to the seismic events source's properties will be discussed as well.