



## **Temporal variation of ambient seismic noise field properties and implications for monitoring uncertainties**

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Ambient seismic noise is one of the signal types used for monitoring purposes, providing more continuous data sets than other seismic signals. The time resolution of ambient noise based earth property monitoring increases permanently as temporal stacking length decreases. However, the temporal variability of the signal characteristics is not well known but plays an important role in potential bias estimation for the different monitoring methods. The temporal, spectral and spatial variation of the ambient seismic noise field was measured using a 3-component beamforming approach and data from several arrays across Europe. Special attention is paid to the variation of these characteristics on different time scales and implications for potential monitoring biases are discussed.