

Bayesian oscillator decomposition for seismic data

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Many time series including seismic data are naturally considered as a superposition of several oscillators. Matsuda and Komaki (2017a,b) proposed a Bayesian statistical method for decomposing time series data into oscillators by using Gaussian linear state space models. For example, this method can be used to extract neural oscillators (such as alpha, beta, and gamma) from neuroimaging data. In this study, we apply this method to seismic data and investigate the extracted oscillators.

Keywords: Bayesian statistics, state space model, data assimilation

