GLOBAL SEISMIC NOISE SYNCHRONIZATION AND SEISMIC DANGER
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Synchronization using multiple spectral coherence measure

Time-frequency diagrams of evolution of multiple spectral coherence measure for four 8-dimensional time series of daily seismic noise properties within moving time window of the length 365 days with mutual shift 7 days.

Synchronization using Haar wavelet-based multiple correlations

Wavelet-based robust multiple correlations for the 1st detail level of 8-dimensional time series. Bold red lines present polynomial trends of 3rd order.

Conclusion
We took rather arbitrary a set of different dimensionless parameters of very low-frequency seismic noise and studied their multiple spectral coherences & wavelet-based correlations from 8 different parts of the world. It turns out that correlations are increasing in time and this increasing coincides with dramatic increasing of strongest earthquakes rate which is observed starting from Sumatra mega-earthquake at 26 Dec of 2004, especially starting from 2007.

Taking into account that we investigate range of periods from 2 minutes up to 500 minutes this correlation increasing could not be the direct consequence of aftershocks of strongest earthquakes. Our hypothesis is that slow movements of small Earth’s crust blocks are synchronized in the regions of preparing huge earthquakes and we see that this synchronization is a global phenomenon starting from the beginning of 2000s.

Thus, we propose that we should wait for series of strongest earthquakes in the nearest future.