



Tempo-spatial analysis of Fennoscandian intraplate seismicity

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Coupled spatial-temporal patterns of the occurrence of earthquakes in Fennoscandia are analysed using non-parametric methods. The occurrence of larger events is unambiguously and very strongly temporally clustered, with major implications for the assessment of seismic hazard in areas such as Fennoscandia. In addition, there is a clear pattern of geographical migration of activity. Data from the Swedish National Seismic Network and a collated international catalogue are analysed. Results show consistent patterns on different spatial and temporal scales. We are currently investigating these patterns in order to assess the statistical significance of the tempo-spatial patterns, and to what extent these may be consistent with stress transfer mechanism such as coulomb stress and pore fluid migration. Indications are that some further mechanism is necessary in order to explain the data, perhaps related to post-glacial uplift, which is up to 1cm/year.