



Earthquake swarms in northern Norway

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The Rana region in Nordland, Norway, is known as one of the most seismically active in Norway. This was the location of the strongest earthquake in modern times in mainland Norway, the 1819, M5.8 Lurøy earthquake. The seismicity in the region is characterized by a combination of a high level of background seismicity and highly active earthquake swarms, such as the well studied Steigen and Meløy swarms. Despite the high level of seismicity, the knowledge about the sources of this activity remains limited. Since 2005, the Norwegian National Seismic network (NNSN) has operated a small local network in the area. This network has recorded more than 1500 earthquakes, mostly with magnitudes below 1, but at distances down to few kilometers. This data has confirmed the high level of seismicity and revealed a high degree of clustering of the events. Based on the data recorded during the last five years, we will present an enhanced picture of the spatio-temporal seismicity distribution in the region together with new focal mechanisms for these small events. This will allow new insight to the regional stress pattern and thereby provide important clues in the search for an explanation of the activity.