



Seismic detection and characterization of rockfalls in Austria

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Rapid gravitational mass movements, such as landslides, rockfalls, or avalanches are repeatedly recognized during routine seismic monitoring at national earthquake observatories. Yet, utilizing the tools of seismology for fast detection and characterization of mass movements is uncommon. Here we present a set of past rockfall events in Austria and neighboring countries, which were well-recorded by several permanent seismic stations. We aim at identifying and locating the rockfall and to establish seismically observable parameters for those events which have additional geological and geographical data (e.g. from field observations) available. Based on this set of well-recorded slide events we propose a processing routine for event detection and location as well as discrimination from earthquakes, which can lay ground for a routine detection of rapid mass movements through remote seismic monitoring.