



Analysis of earthquake signals appearing in rock deformation, gravimeter and seismological recordings

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In rock-deformation monitoring measurements effects of earthquakes, and seismic events can be observed. From the point of view of the original aim of extensometric measurements these effects are usually considered as a noise however, further information can be achieved about the nature of these effects by studying various changes in the geological, rock-physical environment, complementing the analysis of seismograms.

In order to investigate the appearance of effects of earthquakes and seismic oscillations on rock-deformation data, authors choose recordings of significant ($M > 7$) earthquakes observed by two long quartz-tube extensometers (azimuth angle difference is 76°) and a tidal monitoring gravimeter operating in the Matyashegy Gravity and Geodynamical Observatory in Budapest, furthermore by a three component STS-2 seismometer operating in the Kövesligethy Radó Seismological Observatory in Budapest, nearby the gravity observatory. Authors present comparative results of an extensive spectral analysis of the three types of data.

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