



Towards the understanding of tropospheric noise in InSAR data based on combined GPS and meteorological data

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An array of GPS/GNSS stations has been established in order to investigate the hydrological bias in satellite positioning signals in various meteorological conditions. The study area is next to the Patraikos and Corinth Gulf (NW Peloponnese, Greece), which is characterized by a spatio-temporal sequences of hydro-atmospheric effects, from snow to sunshine, due to its particular geography and topography.

The idea is to analyze GNSS recordings from stations with very high vertical separation (with altitude up to 1600m and with a gradient of up to 20%) as well as collocated and nearby stations, so that there is some control in both the vertical and the horizontal variability of the atmospheric effects, and also a control in the noise of geodetic sensors.

Results from GPS data are planned to be combined with meteorological data, as well as satellite radar data, in order to evaluate tropospheric noise in InSAR.

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