



Activities of gravimetric laboratory at Jozefoslaw Observatory (Poland)

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Gravimetric laboratory in the Jozefoslaw Astronomical – Geodetic Observatory is unique station in Poland where are conducted “quasi-permanent” absolute gravity measurements and tidal observations. First AG observation has been performed in nineties. Those investigations were performed using ballistic (symmetric) gravimeter ZZG, constructed in Poland. Since 2005 AG model FG5 has been installed and is using to measures absolute g values with one month delay. At the tidal laboratory the tidal gravity measurements have also been performed since 2002 using LC&R ET-26 gravimeter. In our Observatory is also installed GNSS station and additional devices to monitoring environmental effects.

The poster presents results of determinations of the gravity and geophysical phenomena appeared in non-tidal frequency bands. This elaboration also deals with the results of six years cycle of AG data. It presents result of modeling of the environmental parameters (seasonal loading effects induced by air pressure and ocean, ground water and soil moisture changes and the rainfall as well) to the gravity changes. Main focus will be placed on local hydrological influence connected with variation of ground water level and local soil moisture changes (measured by Theta Probe sensor).