



## **Possibilities of modelling of local and global hydrological changes from high-resolution Global Hydrological Model in the absolute gravity observations - the case of Józefosław Observatory**

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Geodynamical use of epoch gravimetric relative and absolute observations requires the elimination of one from the most significant effect related to local and global changes of hydrological conditions. It is understood that hydrological effect is associated with changes in groundwater levels and soil moisture around the gravimetric station. In Poland, the quasi - permanent observations of gravity changes by absolute method carried out since 2005 on gravity station located in the Astronomical - Geodetic Observatory in Józefosław. In the poster will be shortly described measurement strategy of absolute observations and different approaches to the elimination of the local and global effects associated with changes in hydrology. This paper will discuss the results of the analysis of tidal observations relevant to the development of absolute observations - seasonal changes in barometric correction factor and differences in the locally designated tidal corrections model. Analysis of the possibility of elimination the impact of global hydrological influence is based on the model GLDAS a spatial resolution of 0.25 degree independently on a local scale and global. Józefosław Observatory is equipped with additional sensors linked to the monitoring of local hydrological conditions. It gives a possibility to verify the quality of modeling of hydrological changes using global models in local and global scale.