



## **Tropical cyclogenesis and the gravitational field of Earth**

Borys Kapochkin, Valery Mikhaylov, Nataliya Kucherenko, and Vadim Dilya  
Odessa State Environmental University, Odessa, Ukraine

Anomalies of the gravitational field of the Earth form anomalies of the atmospheric pressure field. Tropical cyclones are formed in subtropical zones of high atmospheric pressure. The increase of the gravitational field of the ground in tropical zone causes the increase of quantity and capacity of tropical cyclones. Thorough availability of the data in real time (and their archives) of such projects as Gravity Recovery and Climate Experiment (GRE), Gravity field and steady-state Ocean Circulation Explorer Mission (GOCE) will give us an opportunity to study deeply and comprehensively the questions of the gravitational field influence on the circulation of the atmosphere, and particularly tropical cyclogenesis.