Satellite Gravity Mission GRACE and the Superconducting Gravimeter Observation Network

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NASA and GFZ are planning to launch a new satellite mission GRACE which measures the Earth's gravity field and its temporal variation by means of a new low-low satellite-to-satellite tracking system. Because estimated accuracy obtained by the mission is two orders better than the existent best gravity model, the mission is expected to contribute for a variety of the earth sciences. On the other hands, this kind of satellite observation is the first attempt in the history, hence it is very important to calibrate the measurements by a high precision gravity measurement on land. Collaborating with US researchers, we are now undertaking to establish a ground truth system using the superconducting gravimeter observation network in Japan.