

超伝導重力計で観測された苫小牧周辺海域の長周期海面振動

Sea level oscillations observed with an iGrav SG at Tomakomai, Hokkaido, Japan

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A superconducting gravimeter installed near the coast may detect gravity effects induced by sea level variation. For example, Nawa et al. (2003) show the relationship between sea level variation and gravity variation from a superconducting gravimeter installed at Syowa Station, Antarctica. These effects are interpreted to be due to loading and attraction by seawater in Lutzow-Holm Bay around the station (Nawa et al., 2007). We tried to extract gravity changes induced by sea level variation from the gravity data acquired by an iGrav superconducting gravimeter newly installed at Tomakomai, Japan (Sugihara et al., 2015). As a result, at the period of passing low pressure in the vicinity of Hokkaido (e.g. several days in April and December 2015), we could detect signals corresponding to the sea level oscillations of the period 74 minutes.

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