

Observation of long-period gravity changes with superconducting gravimeters - on the annual polar motion effects -

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The annual gravity change observed from superconducting gravimeters has been compared with the value predicted from four effects of the solid tide, ocean tides, polar motion and sea surface height variations. The results for comparison show that the observations are well represented with the above four effects, especially, for the observation at Syowa Station, Antarctica.

The present results suggest that the Chandler component might be much responsible for the time difference (10 to 20 days) between the observation and the gravity changes predicted from the polar motion data offered by IERS.