

Satellite Navigation and Space Geodesy: Recent Progresses and Perspective

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SUMMARY

Nowadays, space geodetic techniques, particularly Global Navigation Satellite Systems (GNSS) and satellite gravity mission GRACE, are capable of measuring and monitoring small changes of Earth's surface and interior mass with high accuracy and spatial-temporal resolution. These provide a unique opportunity to investigate atmospheric variations, crustal deformation, sea level change and mass transport in the Earth's interior. In this paper, the recent developments and progresses of space geodetic applications in the atmosphere, ionosphere, tectonics and hydrology are presented. Some future challenges and perspective are also given and discussed.