

Precise orbit determination of low earth orbiters with High-Low SST and accelerometer

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Low earth orbiters such as CHAMP and GRACE, which are aimed to determine the earth gravitational field, have a GPS receiver and an accelerometer to determine the position and velocity of the satellite precisely. We have developed precise orbit determination software concerto v4, and solved the position and velocity of low earth orbiters using GPS and accelerometer observations. We have been evaluating the precision of our orbit by compared with other analyzed orbit such as JPL or GFZ.