



## **Orbit Determination for SBAS Satellites based on Microwave Observations**

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The geostationary satellites of GPS augmentation systems such as WAAS or EGNOS are equipped with transponders providing GPS-like microwave signals. The tracking data may be used to determine orbits for these satellites.

An orbit consistency of a few meters can be achieved by using single-frequency code observations. The spatial distribution of tracking sites and the length of the computed orbital arc are important factors influencing the orbit quality.

As opposed to other navigation systems the observation geometry for geostationary satellites is changing only slowly. This peculiarity is problematic as soon as phase ambiguities or inter-system code biases come into play.