



## **goGPS free and open source GNSS software for tropospheric delay estimation**

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goGPS is a GNSS processing software written in MATLAB, that was originally developed for precise positioning purposes, mainly based on the double-difference relative approach. To broaden its use by including also tropospheric delay estimation, all the algorithms and procedures needed to apply PPP (Precise Point Positioning) were implemented. In addition, the possibility to use also single-frequency low-cost receivers in PPP was added, by including a customized MATLAB implementation of the SEID (Satellite-specific Epoch-differenced Ionospheric Delay) algorithm.

Examples of GNSS data processing using both single-frequency and dual-frequency receivers are presented. Validation of the zenithal delays and slant delays against external data are shown to demonstrate the software capabilities.