

# **GPS RADIO OCCULTATION WITH CHAMP, GRACE-A, TERRASAR-X AND COSMIC: RESULTS FROM GFZ**

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Several GPS Radio Occultation (RO) missions (GRACE-A, COSMIC and Metop) started data provision in 2006 and 2007. Together with the measurements from CHAMP (since 2001) and the recently launched (June 15, 2007) TerraSAR-X a multi-satellite constellation for precise GPS based atmospheric sounding became reality.

Our poster briefly reviews the status of current GFZ activities regarding processing and application of GPS RO data from different satellites. These activities include precise satellite orbit determination and occultation processing also to provide near-real-time analysis results for weather forecast centers. One of the new aspects is OpenLoop data processing. Especially the long-term data set from CHAMP is used for climatological investigations of the UTLS (Upper Troposphere Lower Stratosphere) region and the occurrence of irregularities in the lower ionosphere.