

Fast Preview

Note: This is not exactly what the published abstract will look like

Reference frame induced noise in CGPS coordinate time series.

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(Sponsor: **Hans-Peter Plag**)

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Global scale studies of changes in the Earth's geometry due to geodynamics and surface loading, including problems related to global change (such as sea level changes) require access to a highly accurate global reference frame with spatially homogeneous accuracy. Today, such access is only easily available through GPS, which allows to determine point coordinates relative to the International Terrestrial Reference Frame (ITRF). The International GPS Service (IGS) provides global products (satellite orbits and clocks, SOC) as well as time series of the reference coordinates for the IGS tracking stations that can be used to determine coordinates of new points either through single point positioning relative to the SOC or by using additional information from nearby reference sites. We will discuss the quality of the IGS products in terms of long-term stability and accuracy relative to ITRF and discuss potential noise introduced by these products into coordinate time series determined from Continuous GPS (CGPS) observations. Through comparison to homogeneous SOC provided by the Jet Propulsion Laboratory (JPL), we will assess the noise due to the IGS products and also quantify the noise introduced by inconsistencies in the processing used to generate the global products and the single point positioning processing.

Meeting:

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Membership Number:

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Student rate:

Not Applicable

Willing to chair a session:

Meeting Section:

G - Geodesy

Special Session:

G05 - GPS Time Series:
Signal and Noise

Index Terms:

1229,1243,1247

Theme:

Material presented:

0%

Contributed

Poster presentation requested:

Scheduling request: