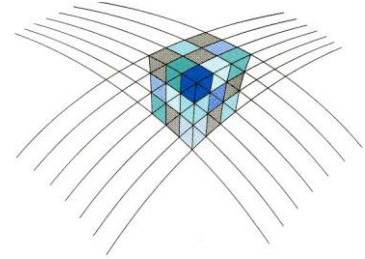


NCG



Netherlands Center for Geodesy and Geo-informatics

Abstract submission for the NCG Symposium 2020

Abstract submission deadline: **24 August 2020**

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Presentation title: Reference frame validation of GNSS services

Demo: no

Abstract:

In GNSS point positioning the coordinate reference frame of the positioning results is determined by the reference frame of the used GNSS service product. Examples of GNSS service products are broadcast ephemeris (for SPP), precise orbits, clocks and biases (for PPP, PPP-RTK) or (virtual) reference station observations with coordinates (for RTK, PPK).

To ensure consistency of the coordinate reference frame between GNSS service providers, national agencies compute coordinates for the GNSS reference stations used by these providers. This approach ensures consistency of the reference frame on the input side of the process that generates GNSS RTK service products. The approach is not suitable for other GNSS point positioning techniques (SPP, PPP, PPP-RTK) and has some drawbacks for both providers and users, especially as the GNSS service product that is provided to the end user is not validated.

This contribution presents existing and new approaches to validate the reference frame of GNSS service products. It also shows the results of the implementation of the new approaches using different GNSS service products.