Geophysical Research Abstracts
Vol. 20, EGU2018-15155, 2018
EGU General Assembly 2018

An attempt to obtain ionospheric differential code biases based on multisystem GNSS observations

Chengli She (1,2) and Xinan Yue (1,2)

(1) Institute of Geology and Geophysics Chinese Academy of Sciences (IGGCAS), Division of Geomagnetism and Space Physics, Beijing, China (certainly@mail.iggcas.ac.cn), (2) University of the Chinese Academy of Sciences, Beijing 100049, China

The ionospheric differential code bias (DCB) are one of the most important parameters in determing the absolute ionospheric total electron content (TEC). Recently, we imposed the local spherical symmetry hypothesis to the multisystem GNSS dual-frequency observations, and solve the ionospheric TEC and the combined DCB. The combined DCB is the combination of the DCB from both the ground receriver and the GNSS satellite. In our attempt, we consider the observations from nearby spatial and temporal domain. Our TEC and DCB results are compatible to those calculated from CODE DCB and global ionospheric mapping (GIM) products. Our method can utilize the advantage of the multisystem observations and exhibits the value in real-time space weather monitoring.