



## Techniques and Applications in High Precision GNSS

Guest Editors:

**Dr. Shuli Song**

Shanghai Astronomical  
Observatory, Chinese Academy of  
Sciences, Shanghai 200083,  
China

**Dr. Robert Odolinski**

National School of Surveying,  
University of Otago, 310 Castle  
Street, Dunedin 9016, New  
Zealand

Deadline for manuscript  
submissions:

**closed (6 August 2022)**

### Message from the Guest Editors

The Global Navigation Satellite Systems (GNSS) have achieved remarkable progress in geodesy, atmospheric retrieval, precise positioning, timing, etc. At present, there are four global operational satellite navigation systems, those being the BeiDou Navigation Satellite System (BDS), Galileo, GLONASS and GPS. In addition, some countries have also launched regional navigation satellite systems, such as QZSS, IRNSS, and KPS. The multi-GNSS and multi-frequency observations hold massive potential for applications in the scientific community. For example, the multi-GNSS can achieve global time and frequency transfer. Algorithmic advancements are needed to meet the opportunities and challenges in enhancing the accuracy, availability, interoperability, and integrity of high-precision GNSS applications. The Special Issue is to explain the new developments in high-precision GNSS, which include, but are not limited to, the following:

High-precision GNSS POD, PCE, PPP and PPP-RTK;  
The troposphere and ionosphere observations, modelling and monitoring;  
High-precision GNSS algorithms and applications in geosciences.





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### Prof. Dr. Ilias Kavouras

Environmental, Occupational,  
and Geospatial Health Sciences,  
CUNY School of Public Health,  
New York, NY 10027, USA

## Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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Atmosphere Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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