Identification and Mitigation of GNSS Errors

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This session considers all the full range of effects that may corrupt GNSS signals or induce undesirable contributions in GNSS analysis results. We focus particular attention on those effects that may have been neglected before, are of most serious magnitude, may be particularly insidious in obscuring genuine geophysical signals (such as aliasing), or degrade the stability of the reference frame.

Questions concerning the quality of IGS products and future improvements have a platform in this session, too. This includes the correlation of orbit modelling deficiencies with apparent geocenter variations or causes for persistent biases between AC products as well as further improvements of the IGS products, e.g. for applications such as precise point positioning. Of interest for users of IGS products are discussions on the procedures promising the most precise and least biased results in the vast field of applications.

It is likely that significant technique-related errors (e.g. caused by near-field and far-field multipath) are sometimes being misinterpreted as geophysical effects. Therefore, it is critical that the IGS take a stronger role in identifying the sources of GNSS errors and in finding strategies to mitigate their effects. This will require new research activities to better understand some suspected error sources. All aspects of GNSS geodesy are potentially involved, from field observations through data analysis and interpretation.