

Atmospheric impact on remote sensing: challenges and opportunities.

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The ionosphere and the troposphere can significantly affect radio waves based studies such as for Earth science dedicated to observations of surface deformation, cryosphere dynamics, etc. This is the case for example for the INSAR, LOFAR, and GNSS single-frequency applications.

To pose a solid bridge between the atmospheric and impacted scientific communities, this session solicits contributions to facilitate exchange of information on their respective states of the art as well as on their future needs.

Contributions are welcome on ionosphere and troposphere research at low, mid and high latitudes from GNSS and satellites in situ data dealing with ionospheric irregularities, scintillation, total electron content (TEC) gradients, travelling ionospheric disturbances (TID) as well as water vapour measurements. Papers dealing with the assessment and mitigation of "atmosphere" impacts on different applications are highly encouraged. Papers focusing on data processing to support models development are also welcome, as are those based on a multi- instrument approach. Finally, contributions highlighting differences and similarities at high and low latitudes are also appreciated.