

Special Issue

Remote Sensing of Air Quality

Message from the Guest Editors

Air quality is determined by atmospheric aerosols and trace gases, which have adverse effects on, e.g., health, visibility and climate. In particular, the near-surface concentrations of NO₂, SO₂, O₃, NH₃, Volatile Organic Compounds (VOCs) and aerosol properties, for air quality purposes often expressed as PM_{2.5} or PM₁₀, are important. The vertical column densities (VCDs) of trace gases and the column-integrated aerosol extinction coefficients (i.e., the aerosol optical depth, or AOD) can be determined from satellite observations, using the same method globally. However, to determine the near-surface concentrations and emissions of trace gases and aerosols (PM) requires the use of a model taking into account processes affecting the vertical profile. In addition, the determination of emissions of aerosols and trace gases requires inverse modeling in which the concentrations are constrained by satellite observations. This top-down approach allows for the determination of near surface concentrations and emissions with high temporal resolution and reveals emission and concentration changes on very short time scales (~1 month).

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2019)



Remote Sensing

an Open Access Journal
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Impact Factor 4.2
CiteScore 8.3



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Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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