Radiative Transfer Modelling and Applications in Remote Sensing

Message from the Guest Editors

We invite scientists working on forward and inverse radiative transfer to contribute to this Special Issue. Topics of interest include (a) theoretical aspects of radiative transfer that can advance remote sensing techniques; (b) models for radiative transfer in the atmosphere and the Earth’s surface that further our understanding of information content of multiangle, spectral and polarimetric data; (c) analyses of 3D effects in radiative transfer and associated uncertainties in interpretation of remotely sensed data; and (d) methodologies that minimize the discretizing effects in numerical solutions of the radiative transfer equation. Contributions related to development of various indices that correlate with parameters of the atmosphere and land surface are also encouraged. However, we expect that such papers will provide analyses of underlying physical mechanisms of the correlation, which is required to distinguish causality from correlations in interpretation of remote sensing data.

Keyword: radiative transfer equation; inverse technique; multiangle, spectral and polarimetric signals; computational methods; remote sensing indices