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Thermal Remote Sensing for Monitoring Terrestrial Environment

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Deadline for manuscript submissions: closed (31 October 2023)



mdpi.com/si/126902

Message from the Guest Editors

Dear Colleagues,

It is well known that everything above absolute zero (-273.1 °C) emits radiation in the thermal infrared range of the electromagnetic spectrum. Based on this fact, thermal infrared (TIR, 3–14 μ m) remote sensing detects the transmitted surface-leaving radiation and the emission by the atmosphere. The surface–atmosphere coupling allows the estimate of a number of environmental variables, including land surface temperature (LST), land surface emissivity, air temperature, water vapor, trace gases, the component of surface radiation, and energy balances, etc.

In this Special Issue, we will compile state-of-the-art methods for estimating TIR variables, monitoring the terrestrial environment, and detecting thermal anomalies. Potential topics include but are not limited to the following:

Thermal environment, Urban heat island; Heatwave; Geological mapping; Land cover classification; Landscape thermal responses; Thermal anomaly; Coal fire; Warm water discharge; Active fire detection; Anthropogenic heat emission; Land surface temperature and emissivity; Air temperature; Water vapor; Surface radiation and energy budget.







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Message from the Editor-in-Chief

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