



fire



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Remotely Sensed Estimates of Fire Radiative Energy

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Message from the Guest Editors

Dear Colleagues,

Heat produced from fire, often measured as heat yield (MJ kg⁻¹), is thermal energy transferred via conduction, convection, vaporization, and radiation, and provides a metric of the total potential energy released if complete combustion of the fuel occurs. It is the radiative component estimated from Earth observing (EO) satellite sensors, providing synoptic monitoring of this global fire phenomenon.

Advances in sensors and algorithms have continued to evolve, and the application of FRP and FRE have expanded, but questions of accuracy, precision, and uncertainty still remain. Specific topics include, but are not limited to:

- FRP/FRE and fire behavior or spread modeling;
- FRP/FRE and smoke plume dynamics;
- Biomass consumption using FRP/FRE;
- Emissions estimates using FRP/FRE and maximum FRP;
- Disaster assessments using maximum FRP;
- Novel approaches to estimate FRP and FRE;
- Laboratory and field assessments of FRP/FRE;
- Sources of variability in radiative fraction;
- FRP/FRE and vegetation mortality and recovery;
- Inter-sensor comparisons of FRP/FRE approximation;
- Blended product development;
- Uncertainty analysis;
- Product validation;
- Sensor development.



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