

Special Issue

Solar Radiation: Measurements and Model Studies—Progress and Perspectives (2nd Edition)

Message from the Guest Editor

It is well known that the need to advance the use of green energy seeks to reduce environmental pollution, achieve economic goals, and undermine the mechanism of climate change. Solar radiation is considered to be one of the cleanest, most accessible, and alternative sources of renewable energy that can meet future energy needs. With recent developments in solar energy projects around the globe, a proper estimation of solar radiation and related parameters is needed. We invite researchers to contribute original research manuscripts relating to all aspects of solar radiation, measurements, and modelling. Relevant research includes, but is not limited to, the following topics: Radiation studies that present new knowledge of aerosol–cloud–radiation interactions on a regional scale; Characterization of the effects of air pollution processes on radiation; Testing different techniques, measurements, and models for a precise understanding of solar radiation; Solar UV radiation; Optical radiation propagation; Dynamic and microphysics radiation; Electromagnetic radiation—emission, absorption, and scattering rates.

Guest Editor

Dr. Abd Al Karim Haj Ismail

Department of Mathematics and Sciences, College of Humanities and Science, Ajman University, Ajman P.O. Box 346, United Arab Emirates

Deadline for manuscript submissions

closed (31 January 2026)



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Atmosphere
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
atmosphere@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

Dr. Daniele Contini

Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

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