



## Atmospheric Radar for Severe Weather Surveillance and Analysis

Guest Editor:

**Dr. Tomeu Rigo**

Servei Meteorologic de  
Catalunya, 08017 Barcelona,  
Spain

Deadline for manuscript  
submissions:

**closed (15 February 2020)**

### Message from the Guest Editor

Dear Colleagues,

Severe weather (large hail, strong convective straight winds, tornadoes, heavy rainfall, all associated to intense thunderstorms) produces substantial losses in agriculture, industry, and many others human activities. Besides, casualties are also possible in some cases, depending on the intensity of the phenomena and on the vulnerability of the affected area. Severe weather phenomena occur in many areas of the world, producing substantial economic losses, as reported by the WMO. For this reason, research on this topic requires important efforts to develop efficient weather surveillance systems. One of them is remote sensing—weather radar in particular—for detecting, diagnosing, and forecasting severe weather producing thunderstorms. Furthermore, because of the spatial and time resolutions, some radar products can help the generation of affectation maps to be used in civil protection plans or to infer the climatology of a particular area. This book is a compilation of some of the last advances in this field.

Dr. Tomeu Rigo  
*Guest Editor*





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## 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

## 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!

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Atmosphere Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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