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Shock Wave Dynamics and Its Effects on Planetary Atmospheres

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Deadline for manuscript submissions:

closed (15 February 2020)

Message from the Guest Editor

Dear Colleagues,

This Special Issue is focused on shock waves and their effects on planetary atmospheres, including shock wave generation, propagation and attenuation, as well as source localization and characterization. Observational, experimental and theoretical studies are welcome. We invite researchers to contribute original research articles as well as review articles on the topic of shock wave phenomena in planetary atmospheres including but not limited to the following subtopics:

- Generation, propagation, and attenuation of shock waves resulting from natural and anthropogenic sources (e.g., meteoroids, lightning, solar storms and re-entry vehicles)
- Propagation and attenuation of weak shock (i.e., infrasound)
- The effects of ducting and atmospheric stratification, and wind on the propagation and attenuation of shock
- Source detection (direct and indirect methods), localization and characterization
- Physico-chemical effects on the local atmosphere
- Shock waves in extra-terrestrial atmospheres (e.g., Mars, Venus, Titan, Jupiter)

Dr. Elizabeth A. Silber Guest Editor











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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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