



The Impacts of Climate on Astronomical Observations

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Deadline for manuscript
submissions:

closed (20 February 2024)

Message from the Guest Editor

Climate change is affecting and will increasingly affect astronomical observations. For ground-based astronomical facilities with a typical lifetime of at least 30 years, it is essential to be aware of future climate evolution to optimize observation strategies and instrumental upgrades. New facilities have been introduced and others are in the planning phase. Further investigation is needed to better understand the underlying mechanisms of change and to assess the severity of the impact.

How severe is climate change for the scientific throughput of a ground-based observatory? Which observing mode is directly impacted by the long-term change in a given meteorological parameter? Modern ground-based astronomy produces a wealth of scientific data progressively made publicly available, which can be used for instrument performance analysis and cross-compared to meteorological trends.

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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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Journal Rank: CiteScore - Q2 (*Environmental Science (miscellaneous)*)

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