

Special Issue

Airborne Measurements of Atmospheric Aerosol

Message from the Guest Editors

Despite the influence that atmospheric aerosols have on air quality, cloud formation, precipitation, radiative transfer, atmospheric electrification, and climate, aerosols remain the least understood component of the atmosphere, contributing to the highest uncertainty in atmospheric processes. This uncertainty can be attributed to the broad diversity of anthropogenic and natural sources, primary and secondary formation mechanisms, challenges in measurements of airborne nanoparticles, complexity of aerosol morphology and composition, and the limited number of measurements made both spatially and temporally across the globe. Other challenges specific to airborne aerosol measurements include the platform payload capacity, sampling strategies, cost, and interpretation of results. This Special Issue seeks papers dedicated to airborne aerosol measurements, including but not limited to platforms such as weather balloons, drones, UAVs, aircraft, zeppelins and dropsondes, and the corresponding development of new airborne sensors capable of identifying various aerosol properties such as quantity, dimensions, shape, physicochemical properties, and electric charge.

Guest Editors

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Deadline for manuscript submissions

closed (20 June 2021)



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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

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