High concentrations of particulate matter with an

aerodynamic diameter of 2.5 micrometers or less (PM2.5)

are of great concern due to their human health impact,

visibility impairment, and environmental damage.

Accurate forecasts of PM2.5 are difficult due in part to the

complexity of its emission sources and chemical

composition, as well as uncertainties associated with its

eventual fate within the atmosphere.

To highlight these efforts, we invite you to submit your

research related to PM2.5 Prediction in the United States

for publication in a special issue dedicated to the topic.

This issue aims to collect and disseminate recent research

papers on current scientific advances, applications, and

challenges related to PM2.5 forecasts in the US, including

(but not limited to) topics such as wildfire emissions, windblown

dust, secondary aerosol formation, data

assimilation into PM2.5 predictions, next generation air

quality model development, model evaluation and bias

correction, surface and satellite measurements and their

application towards improved PM2.5 prediction, forecast

challenges specific to complex terrain and coastal regions.