Title:	Winter fog experiment over the Indo-Gangetic plains of India
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Abstract:	The objectives of the Winter Fog Experiment (WIFEX) over the Indo-Gangetic Plains of India are to develop better now-casting and forecasting of winter fog on various time- and spatial scales. Maximum fog occurrence over northwest India is about 48 days (visibility <1000 m) per year, and it occurs mostly during the December–February time-period. The physical and chemical characteristics of fog, meteorological factors responsible for its genesis, sustenance, intensity and dissipation are poorly understood. Improved understanding on the above aspects is required to develop reliable forecasting models and observational techniques for accurate prediction of the fog events. Extensive sets of comprehensive ground based instrumentation were deployed at the Indira Gandhi International Airport, New Delhi. Major in situ sensors were deployed to measure surface micrometeorological conditions, radiation balance, turbulence, thermodynamical structure of the surface layer, fog droplet and aerosol microphysics, aerosol optical properties, and aerosol and fog water chemistry to describe the complete environmental conditions under which fog develops. In addition, Weather Forecasting Model coupled with chemistry is planned for fog prediction at a spatial resolution of 2 km. The present study provides an introductory overview of the winter fog field campaign with its unique instrumentation.
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