



## **Predicting Fog in the Nocturnal Boundary Layer**

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Fog is a global phenomenon that presents a hazard to navigation and human safety, resulting in significant economic impacts for air and shipping industries as well as causing numerous road traffic accidents. Accurate prediction of fog events, however, remains elusive both in terms of timing and occurrence itself. Statistical methods based on set threshold criteria for key variables such as wind speed have been developed, but high rates of correct prediction of fog events still lead to similarly high “false alarms” when the conditions appear favourable, but no fog forms. Using data from the CESAR meteorological observatory in the Netherlands, we analyze specific cases and perform statistical analyses of event climatology, in order to identify the necessary conditions for correct prediction of fog. We also identify potential “missing ingredients” in current analysis that could help to reduce the number of false alarms. New variables considered include the indicators of boundary layer stability, as well as the presence of aerosols conducive to droplet formation. The poster presents initial findings of new research as well as plans for continued research.