



Biomass burning aerosol identification using multi-source satellite data

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Abstract: Air pollution caused by biomass burning has been a major concern over east China in recent decades. The distinct radiative effects of biomass burning aerosol due to its strong absorption also bring great uncertainty to the regional climate change. Therefore, it is urgent to investigate the spatial, temporal and vertical distribution of biomass burning aerosols over eastern China. In this paper, machine learning and multi-threshold method were used to identify biomass burning aerosol. We used a random forests model to identify biomass burning aerosols based on multi-source data includes Himawari-8 with high temporal resolution. The validated method would provide a basis for the study of aerosol radiation effect in China. This study is also useful to monitor smoke pollution in eastern China.