

Aerosol Modeling with Fire Dynamics Simulator

Traditionally fire models have treated smoke as just another gas phase species and for much of its history this has been the case with the Fire Dynamics Simulator (FDS). In efforts to address issues with validation of smoke obscuration predictions, support forensics applications, and other usage, recent FDS development has added number of features related to the modeling of aerosols. These include deposition mechanisms, gas phase settling mechanisms, and agglomeration mechanisms. This presentation will discuss the motivation for adding these capabilities to FDS, provide an overview of the various mechanisms, and present the current verification and validation basis for them.

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