# Computer Models For Fire and Smoke

*Model Name*: Fire Dynamics Simulator (FDS)

*Version*: 5.0

*Classification*: Field Model

*Very Short Description*: General purpose low Mach number CFD code specific to fire-related flows.

*Modeler(s), Organization(s)*: Kevin McGrattan, Glenn Forney, Bryan Klein, NIST
Simo Hostikka, VTT Finland
Jason Floyd, Hughes Associates

*User's Guide*: NIST Special Publication 1019-5

*Technical References*: NIST Special Publication 1018-5

*Validation References*: NIST Special Publication 1018-5

*Availability*: fire.nist.gov/fds

*Price*: free

*Necessary Hardware*: UNIX or PC of PII 450 or better

*Computer Language*: Fortran 90

*Size*: -----

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*Detailed Description*:

Large Eddy Simulation based fire model. Solution of the low Mach number approximation to the Navier-Stokes equations.
Rectilinear, single block grids, mixture fraction based combustion model.

Sprinklers included.  Empirical suppression algorithms.
Visualization via the software package Smokeview developed by Glenn Forney.