

MULTILEVEL METHODS IN LARGE-EDDY SIMULATION

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Issues related to the use of multilevel-based methods within the Large-eddy simulation (LES) framework are discussed. The bases of Large-eddy simulation for incompressible turbulent flows are first recalled. The emphasis is put on the mathematical models for LES and the subgrid modeling issue. In a second time, a general multiresolution/multiscale framework is introduced, which extend the usual definition of LES. Using this new tool, general features of multilevel LES methods are discussed and illustrated.