

Transitional Modelling of flow over sphere

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Abstract

The current study focuses on computing turbulent flow over a spherical body, for different Reynolds number in the transitional flow region, and comparing the obtained data with experimental results. Different mesh configurations were used, and multiple divergence schemes and solver combinations were tested. The results from the simulation runs show that the linear upwind divergence scheme, coupled with Geometric Algebraic Multi Grid (GAMG) solvers, with a careful selection of smoothers show results that match the best with experimental data.