

Developments in Hybrid RANS/LES and Wall Modeling approaches in Nek

Tuesday, July 30, 2024 9:50 AM (40 minutes)

The implementation and performance of non-zonal hybrid Reynolds Averaged Navier-Stokes (RANS)/Large Eddy Simulation (HRLES) approaches in Nek based on the k-tau RANS model will be presented. Results will be compared with direct numerical simulations (DNS) for benchmark cases such as the turbulent flow over the Periodic Hill geometry and the Plane Asymmetric Diffuser. Wall modeling approaches will also be presented for RANS and LES with representative examples.

Relevance for Nek [100 words max]

Numerics with NEK.

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