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Dynamic DDES On DES Type Grid ZIFEI YIN, PAUL DURBIN, None — A dynamic procedure allows a DES formulation that we developed to adjust C_{DES} for different flow configurations. Similarly to the dynamic Smagorinsky model, the grid is required to be fine enough to resolve a significant portion of the inertial range. In some cases, that requirement conflicts with the goal of DES to cut down computing cost. The current effort is therefore to determine a proper C_{DES} value by approximately recovering some unresolved small scales from primary, filtered solution. Repeated test filtering is adopted here to compute the approximation of the unfiltered solution. The formulation is based on the dynamic l^2w DDES model and different geometries with varies grid resolution are tested to determine the applicability of proposed formultion on DES type grids.

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