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Adaptive High-order Discretization of the Reynolds-Averaged Navier-Stokes Equations

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Highlights

1. Extended the flux reconstruction (FR)/correction procedure via reconstruction (CPR) formulation to solve the RANS equations with the modified Spalart and Allmaras model
2. Employed the same FR/CPR solver for the Eikonal equation to obtain the distance to nearest walls, and demonstrated high-order accuracy
3. Demonstrated the effectiveness of an output based adjoint approach with three benchmark turbulent flow problems.

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