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Inferring an effective eddy viscosity from High Fidelity Data¹ NIKHIL OBEROI, WALTER ARIAS RAMIREZ, JOHAN LARSSON, University of Maryland, College Park — Different ways to compute an inferred eddy viscosity from resolved turbulence data (from LES, DNS, experiments) based on optimization methods are investigated and assessed based on how well they reproduce the mean fields. The method is tested on wall bounded flows including a channel and a boundary layer. We further investigate the sensitivity of these methods to averaging error in the given Reynolds stress fields.

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