Simulations of the Turbulent Channel Flow at $Re_\tau = 180$ with Finite Element Variational Multiscale Methods

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Projection based variational multiscale (VMS) methods coupled with higher order finite element methods are studied in simulations of the turbulent channel flow problem at $Re_\tau = 180$. For comparison, the Smagorinsky LES model with van Driest damping is included into the study. The simulations are performed on rather coarse grids. The evaluation of the results concentrates on the mean velocity profile.

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