

Abstract Submitted
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Turbulent transport in the flows affected by curvature and rotation ANDREI KHODAK, Princeton Plasma Physics Laboratory — Navier Stokes equations for averaged flow parameters combined with a closure model for turbulent Reynolds stress tensor have been successfully applied for modeling of flows. Closure models for turbulent Reynolds stress tensor and their applicability conditions will be reviewed. Many flows can be correctly modeled using turbulent viscosity closure model. In this model, the turbulent stress tensor is proportional to the strain rate tensor. However, modifications of the turbulent viscosity closure models are required for flows affected by effects of curvature, rotation, or volumetric forces. The progress towards creating modification of the model applicable to several physical effects will be presented.

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