Towards understanding of near wall behavior in two-equation models for supersonic flows SUNIL LAKSHMIPATHY, SRIRAM ARASA-NIPALAI, SHARATH GIRIMAJI, Texas A&M University — The standard two-equation models over-predict the turbulent viscosity and turbulent kinetic energy in the near wall region for supersonic flows. There are several approaches to tune the model behavior to agree with experimental values. In the present approach we modify C_μ along the lines of Durbin stagnation point correction. The influence of the turbulent Prandtl numbers - σ_k, σ_ε, $\sigma_{\omega}-$ are also examined.

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