

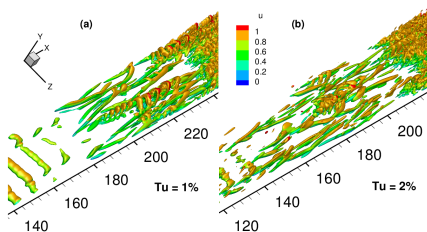
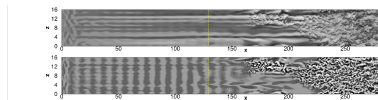
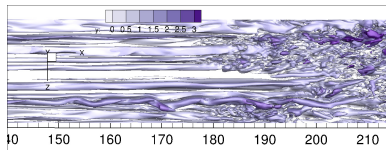
Panel Discussion - Transition

Heng Xiao, Karthik Duraisamy

Moderator: Paul Durbin

3-4PM, 29 July, 2022

‘RANS’ transition modeling is not like RANS turbulence modeling It is mechanism based

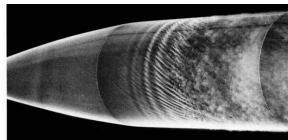
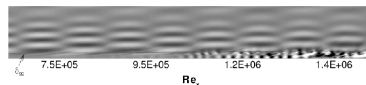
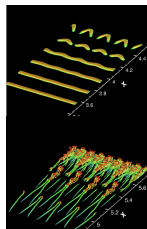


Bypass; Orderly: TS mode

APG: mixed

Hypersonic, Mack mode

Cross flow



- Must transition models be based on data-correlations?
- Are data-driven methods attractive for transition modeling?
- There is no theory of transition. What does this mean for analysis and modeling of transition in practice?
- Intermittency models suppress eddy viscosity; e^N purports to predict transition onset. Should the paradigm be predicting transition or suppressing the turbulence model?