

**UMich/NASA
Symposium
on
ADVANCES IN
TURBULENCE MODELING**

**UNIVERSITY OF MICHIGAN
ANN ARBOR, MI
JULY 10,11,12, 2017**

Timeline:

Feb 15, 2017: 1-page abstract due

Mar 30, 2017: Talk acceptance notification

May 15, 2017: Final agenda posted

Apr 15-Jun 15, 2017: Open registration

turbgate.engin.umich.edu/symposium

Organizing committee:

Karthik Duraisamy (University of Michigan)

Philippe Spalart (Boeing)

Chris Rumsey (NASA Langley)

Objectives:

1. Discuss the state-of-the-art in turbulence modeling from an academic and an industrial perspective
2. Place some of the newer developments in RANS modeling (such as uncertainty quantification, data-driven modeling, etc.) in the context of main-stream turbulence modeling.
3. Explore synergies between turbulence theory, 'traditional' turbulence modeling routes and 'emergent' ideas
4. Discuss expectations (and 'glass-ceiling') of turbulence models in analysis, design and decision-making
5. Discuss the extent to which RANS should be employed in a Wall-modeled LES setting
6. Provide input for a position paper on the status of turbulence modeling and a vision for the future

Format:

4 plenary talks : 30 min each

Contributed talks : 15 min each

White board discussions : 1 hour each

1 session on progress towards the NASA RCA validation workshop

Talks (no paper) are solicited in areas related to the objectives of the symposium. For example: Near-wall turbulence modeling; DNS/LES focused towards improving/developing turbulence models; data-driven turbulence modeling; uncertainty quantification as related to turbulence modeling; Non-equilibrium turbulence modeling; PDF methods; turbulence theory; advanced second moment closures; novel use of turbulence models; thoughts/predictions regarding the future of turbulent flow prediction; industry perspectives, etc.

Sponsors:

Leading Edge Aeronautics Research for NASA (LEARN) *and*
Center for Data-driven Computational Physics, University of Michigan