What next for data-driven turbulence and transition modeling?

(DDTTM)

How to continue the momentum?

- We have a community of interested researchers
  - Turbulence modelers
  - Machine learners
  - Applied CFDers
- We have established some connections
- A top-down approach (one organization leading) is probably not possible… Grass-roots efforts would be better

Some ideas

- Keep this symposium series going
  - So far, its sponsors have been U Michigan and NASA
  - Are other orgs interested in sponsoring or helping to sponsor future symposia?
  - How often? Yearly? Every other year?
- Hold in-the-weeds data-driven workshop(s)
  - Associated with conferences like AIAA, ECCOMAS, ETMM, ERCOFTAC, etc.?
  - Pose challenge problem(s) like current collaborative challenge?
  - Or other types of data-driven challenges?
- Continue the collaborative challenge alive via an ongoing online call for input
  - Requires regular collection/assessment/evaluation team
- TMR-type documentation page
  - Where?: On TMR? On UM site?
  - List best / most useful papers
  - Provide template on how to document methods
  - Post models
  - Archive of comments (Researchgate entity or forum?)
- Sharing of codes/models for reproducibility

To make any/all of these ideas work…

- We probably need to instigate a committee or small team of leaders
  - Meet regularly (virtually or otherwise)
  - Make decisions
  - Keep things moving
  - Schedule/organize future events

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