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RECENT PROGRESS AND TRENDS IN HIGH-ORDER CFD METHODS

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Key words: High-Order Methods, High Order Mesh Generation, hp-Adaptation, Large Eddy Simulation, Algorithms for Extreme-Scale Computers.

ABSTRACT

In this mini-symposium, significant recent developments and trends in high-order methods in computational fluid dynamics (CFD) will be presented. We plan to bring together leading experts from all over the world to engage in exchange of ideas, and spur discussions on the recent development and application of high-order methods for industrial applications. Both new algorithms and innovative real world applications will be sought after. We particularly solicit recent progress, which will significantly impact design in industry in the coming decades. Possible topics include but not limited to:

- High-order methods
- Innovative mesh generation algorithms including viscous high-order mesh generation for complex geometry
- Hp-adaptations
- Efficient time integration schemes for extreme-scale computers
- New shock-capturing algorithms
- Large eddy simulation

We plan to organize at least two sessions with two Keynote lectures.