

MULTISCALE METHODS FOR FLUID DYNAMICS

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ABSTRACT

This symposium focuses on numerical methods for fluid dynamics that use models and information of the fine-scales. It aims at bringing together fluid mechanics, engineers, mathematicians and computer scientists to discuss recent developments in the field of stabilized and variational multiscale methods and their novel applications in engineering and science. We welcome contributions dealing with all aspects of stabilized, multiscale and multiphysics methods, including but not limited to,

1. Mathematical theory of stabilized and variational multiscale methods
2. Emerging multiscale approaches and applications
3. New formulations and solution techniques
4. Multiscale methods in CFD and turbulence modeling
5. Application to error estimation and uncertainty quantification
6. Methods embedding Data in Simulations
7. Parallel computations with multiscale methods
8. Use of multiscale and stabilized methods in industrial applications.

REFERENCES

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