

# Call for Papers

Proceeding of the Institution of Mechanical Engineering, Part C: Journal of Mechanical Engineering Science

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## **Special Issue:**

## **“The Lattice Boltzmann method and its applications in complex flows and fluid-structure interactions”**



### **Guest Editors:**

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The Lattice Boltzmann (LB) method has been developed into an alternative and robust numerical tool for computational fluid dynamics, heat transfer and beyond since its introduction in 1980s. Instead of discretising the partial differential equation, the LB method is an approach based on particle kinetics. This method has achieved considerable success in the past decades and has proven to be an efficient solution method for complex flows and fluid-structure interactions in mechanical engineering sciences due to the local nature of its operations, simplicity of formulation and implementation, and high level of scalability on parallel processing systems.

This Special Issue aims to highlight recent advances in the LB method and its applications in complex flows and fluid-structure interactions. The topics of interest include, but are not limited to, the following studies:

- Advanced LB models
- Improved boundary treatments
- Mesh technologies
- Turbulent modelling and its applications
- Multiphase, multifield and/or multiscale flows
- Fluid-structure interactions
- Biological and biomedical flows
- Flows and transports in porous media
- Non-equilibrium flows

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The deadline for submission of full papers is 31<sup>st</sup> July 2017

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