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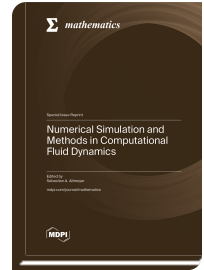
*Special Issue Reprint*

## **Numerical Simulation and Methods in Computational Fluid Dynamics**

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Edited by  
Sebastian A. Altmeyer

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The present Reprint contains 8 articles accepted and published in the Special Issue “Numerical Simulation and Methods in Computational Fluid Dynamics” in the MDPI journal *Mathematics*, which cover a wide range of topics connected to the theory, numerical methods, and simulation techniques of complex fluid dynamic systems. These topics include, among others, magnetic field-induced Joule-heating thermal convection, a Tiwari and Das approach to buoyant convective thermal transport, as well as a computational and machine learning-based approach, and the use of an influence matrix method for accurate implementation of rotating magneto-hydrodynamics. Moreover, Newton’s method using implicit Coriolis integration, transition modelling from shear-driven turbulence to convective turbulence, and convective heat transfer via uniformly accelerated and decelerated turbulent pipe flows are also explored.

It is hoped that the Reprint will be interesting and useful for those working in the area of computational fluid dynamics (CFD), complex systems, and numerics, as well as for those with a mathematical background who wish to become familiar with recent advances in CFD, which now plays a crucial role in almost all sectors of human life and activity.



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