



Industrial Applications of Computational Fluid Dynamics

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Message from the Guest Editors

Guest Editors have the honour to invite you to submit articles for the Special Issue of *Applied Sciences* in the field of computational fluid dynamics.

Hydraulic and pneumatic drives are widely used in vehicles, working machines, and various industrial devices. They enable obtaining large driving forces and moments and precise control of the velocity and position of actuators. These systems' primary energy transfer medium can be hydraulic oil, emulsion water, demineralised water, or the air. The development in this area is dynamic since there is a great industry demand for components with better characteristics, reduced flow losses, lowered leaks, and greater overall efficiency. When considering new solutions, two main research directions can be distinguished: studies on entire systems or development of individual components. In both cases, computational fluid dynamics methods can be used. Notably, the research using CFD may include flow simulations, strength analyses, fatigue and thermal calculations, and interaction with solid elements. The results are of great theoretical and practical importance since they can be widely used in the industry.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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