Special Issue

Recent Advances in Cardiovascular Flows

Message from the Guest Editors

Recent advances in cardiovascular flows have revolutionized our understanding of the complex hemodynamics associated with the cardiovascular system. These advancements, made possible by advanced computational modeling and experimental techniques, have provided unprecedented insights into the intricate flow patterns within the heart and blood vessels. This newfound knowledge has significant implications for diagnosing and treating cardiovascular diseases, as well as developing more effective therapies. In addition to in-silico techniques, advancements in imaging and data acquisition technologies have greatly enhanced our ability to visualize and measure cardiovascular flows. Techniques such as magnetic resonance imaging (MRI), Doppler ultrasound, and particle image velocimetry (PIV) provide non-invasive means to capture high-resolution images and quantify the flow field. This Special Issue is intended to present groundbreaking research techniques and the latest advances in the realm of cardiovascular flows at the microscopic and macroscopic levels, under various degrees and typologies of pathologies.

Guest Editors

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Deadline for manuscript submissions

31 December 2025

Fluids

an Open Access Journal by MDPI

Impact Factor 1.8
CiteScore 4.0

mdpi.com/si/177954

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