



Mathematical Modeling of Aortic Diseases

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Message from the Guest Editors

Dear Colleagues,

This Special Issue of *Bioengineering* titled “Mathematical Modeling of Aortic Diseases” will focus on original research and comprehensive review articles addressing the advanced mathematical modeling and analysis of the experimental investigation of complex cases of aortic diseases. Topics of interest for this Special Issue include, but are not limited to:

- Blood flow modeling in the pathological aorta;
- Novel multifidelity approaches to model blood flow in the aorta and large arteries;
- Blood–vessel interaction;
- Uncertainty quantification in image-based patient-specific simulations;
- Aortic valve modeling;
- Remodeling of the aorta;
- Novel mathematical analysis of advanced imaging techniques in the aorta;
- Blood coagulation modeling in the aorta and large arteries;
- Simulation of various aortic surgical procedures.





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Message from the Editor-in-Chief

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