

Kathrin Baeumler

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Bio

INSTITUTE AFFILIATIONS

- Member (Staff), Cardiovascular Institute

Publications

PUBLICATIONS

- **Understanding Aortic Dissection Hemodynamics: Evaluating Adapted Smoke Surfaces Against Streakline-Based Techniques** *IEEE TRANSACTIONS ON VISUALIZATION AND COMPUTER GRAPHICS*
Schroeder, A., Ostendorf, K., Baumler, K., Mastrodicasa, D., Fleischmann, D., Preim, B., Theisel, H., Mistelbauer, G.
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- **Predicting Late Adverse Events in Uncomplicated Stanford Type B Aortic Dissection: Results From the ROADMAP Validation Study.** *Circulation. Cardiovascular imaging*
Fleischmann, D., Mastrodicasa, D., Willemink, M. J., Turner, V. L., Hinostrroza, V., Burris, N. S., Yang, B., Hanneman, K., Ouzounian, M., Ocazonez Trujillo, D., Affi, R. O., Estrera, A. L., Lacomis, et al
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- **Advanced visualization of aortic dissection anatomy and hemodynamics** *COMPUTERS & GRAPHICS-UK*
Schroeder, A., Ostendorf, K., Baeumler, K., Mastrodicasa, D., Sandfort, V., Fleischmann, D., Preim, B., Mistelbauer, G.
2024; 124
- **Synthetic surface mesh generation of aortic dissections using statistical shape modeling** *COMPUTERS & GRAPHICS-UK*
Ostendorf, K., Baeumler, K., Mastrodicasa, D., Fleischmann, D., Preim, B., Mistelbauer, G.
2024; 124
- **Assessment of aortic dissection remodeling with patient-specific fluid-structure interaction models.** *IEEE transactions on bio-medical engineering*
Baumler, K., Rolf-Pissarczyk, M., Schussnig, R., Fries, T., Mistelbauer, G., Pfaller, M. R., Marsden, A. L., Fleischmann, D., Holzapfel, G. A.
2024; PP
- **Early 3D Growth in Uncomplicated Type B Aortic Dissection is Associated with Long-Term Outcomes.** *Journal of vascular surgery*
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- **On the role of tissue mechanics in fluid-structure interaction simulations of patient-specific aortic dissection** *INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING*
Schussnig, R., Rolf-Pissarczyk, M., Baeumler, K., Fries, T., Holzapfel, G. A., Kronbichler, M.
2024
- **Hemodynamic effects of entry and exit tear size in aortic dissection evaluated with in vitro magnetic resonance imaging and fluid-structure interaction simulation.** *Scientific reports*
Zimmermann, J., Bäuml, K., Loecher, M., Cork, T. E., Marsden, A. L., Ennis, D. B., Fleischmann, D.
2023; 13 (1): 22557
- **Longitudinal investigation of aortic dissection in mice with computational fluid dynamics.** *Computer methods in biomechanics and biomedical engineering*

Bäumler, K., Phillips, E. H., Grande Gutiérrez, N., Fleischmann, D., Marsden, A. L., Goergen, C. J.
2023: 1-14

- **Early clinical outcomes and molecular smooth muscle cell phenotyping using a prophylactic aortic arch replacement strategy in Loeys-Dietz syndrome.** *The Journal of thoracic and cardiovascular surgery*
Pedroza, A. J., Cheng, P., Dalal, A. R., Baeumler, K., Kino, A., Tognozzi, E., Shad, R., Yokoyama, N., Nakamura, K., Mitchel, O., Hiesinger, W., MacFarlane, E. G., Fleischmann, et al
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- **Hemodynamic Effects of Entry Versus Exit Tear Size and Tissue Stiffness in Simulations of Aortic Dissection**
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- **Registry of Aortic Diseases to Model Adverse Events and Progression (ROADMAP) in Uncomplicated Type B Aortic Dissection: Study Design and Rationale.** *Radiology. Cardiothoracic imaging*
Mastrodicasa, D., Willemink, M. J., Turner, V. L., Hinostroza, V., Codari, M., Hanneman, K., Ouzounian, M., Ocazonez Trujillo, D., Affi, R. O., Hedgire, S., Burris, N. S., Yang, B., Lacomis, et al
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- **Inter-observer variability of expert-derived morphologic risk predictors in aortic dissection.** *European radiology*
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- **Artificial intelligence and machine learning in aortic disease.** *Current opinion in cardiology*
Hahn, L. D., Baeumler, K., Hsiao, A.
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- **Deep Learning-Based 3D Segmentation of True Lumen, False Lumen, and False Lumen Thrombosis in Type-B Aortic Dissection.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
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- **Quantitative Hemodynamics in Aortic Dissection: Comparing in Vitro MRI with FSI Simulation in a Compliant Model** *Functional Imaging and Modeling of the Heart*
Zimmermann, J., Baumler, K., Loecher, M., Cork, T. E., Kolawole, F. O., Gifford, K., Marsden, A. L., Fleischmann, D., Ennis, D. .
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- **Deep Flow-Net for EPI Distortion Estimation.** *NeuroImage*
Zahneisen, B., Baeumler, K., Zaharchuk, G., Fleischmann, D., Zeineh, M.
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- **Fluid-structure interaction simulations of patient-specific aortic dissection.** *Biomechanics and modeling in mechanobiology*
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- **Computed Tomography Imaging Features in Acute Uncomplicated Stanford Type-B Aortic Dissection Predict Late Adverse Events** *CIRCULATION-CARDIOVASCULAR IMAGING*

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