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Organisationszugehörigkeiten

Technische Universität Graz
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Graz, Österreich
1 Nov. 2024 → present

Veröffentlichungen

MedShapeNet - a large-scale dataset of 3D medical shapes for computer vision

Li, J., Zhou, Z., Yang, J., Pepe, A., Gsaxner, C., Luijten, G., Qu, C., Zhang, T., Chen, X., Li, W., Wodzinski, M., Friedrich, P., Xie, K., Jin, Y., Ambigapathy, N., Nasca, E., Solak, N., Melito, G. M., Vu, V. D. & Memon, A. R. & 137 mehr, Schlachta, C., De Ribaupierre, S., Patel, R., Eagleson, R., Chen, X., Mächler, H., Kirschke, J. S., De La Rosa, E., Christ, P. F., Li, H. B., Ellis, D. G., Aizenberg, M. R., Gatidis, S., Küstner, T., Shusharina, N., Heller, N., Andrearczyk, V., Depeursinge, A., Hatt, M., Sekuboyina, A., Löffler, M. T., Liebl, H., Dorent, R., Vercauteren, T., Shapey, J., Kujawa, A., Cornelissen, S., Langenhuizen, P., Ben-Hamadou, A., Rekik, A., Pujades, S., Boyer, E., Bolelli, F., Grana, C., Lumetti, L., Salehi, H., Ma, J., Zhang, Y., Gharleghi, R., Beier, S., Sowmya, A., Garza-Villarreal, E. A., Balducci, T., Angeles-Valdez, D., Souza, R., Rittner, L., Frayne, R., Ji, Y., Ferrari, V., Chatterjee, S., Dubost, F., Schreiber, S., Mattern, H., Speck, O., Haehn, D., John, C., Nürnberger, A., Pedrosa, J., Ferreira, C., Aresta, G., Cunha, A., Campilho, A., Suter, Y., Garcia, J., Lalande, A., Vandenbossche, V., Van Oevelen, A., Duquesne, K., Mekhzoum, H., Vandemeulebroucke, J., Audenaert, E., Krebs, C., Van Leeuwen, T., Vereecke, E., Heidemeyer, H., Röhrig, R., Hölzle, F., Badeli, V., Krieger, K., Gunzer, M., Chen, J., Van Meegdenburg, T., Dada, A., Balzer, M., Fragemann, J., Jonske, F., Rempe, M., Malorodov, S., Bahnsen, F. H., Seibold, C., Jaus, A., Marinov, Z., Jaeger, P. F., Stiefelhagen, R., Santos, A. S., Lindo, M., Ferreira, A., Alves, V., Kamp, M., Abourayya, A., Nensa, F., Hörst, F., Brehmer, A., Heine, L., Hanusrichter, Y., Weßling, M., Dudda, M., Podleska, L. E., Fink, M. A., Keyl, J., Tserpes, K., Kim, M. S., Elhabian, S., Lamecker, H., Zukić, D., Paniagua, B., Wachinger, C., Urschler, M., Duong, L., Wasserthal, J., Hoyer, P. F., Basu, O., Maal, T., Witjes, M. J. H., Schiele, G., Chang, T. C., Ahmadi, S. A., Luo, P., Menze, B., Reyes, M., Deserno, T. M., Davatzikos, C., Puladi, B., Fua, P., Yuille, A. L., Kleesiek, J. & Egger, J., 30 Dez. 2024, in: *Biomedizinische Technik*. 70, 1, S. 71-90 20 S.

Determination and sensitivity analysis of optimal control parameters of actively steered wheelsets

Lindbichler, L., Klanner, M., Melito, G. M. & Ellermann, K., Sept. 2024, (Elektronische Veröffentlichung vor Drucklegung.) *Proceedings of ISMA 2024 International Conference on Noise and Vibration Engineering and USD2024 International Conference on Uncertainty in Structural Dynamics*. KU Leuven

Optimizing Aortic Segmentation with an Innovative Quality Assessment: The Role of Global Sensitivity Analysis

Melito, G. M., Pepe, A., Jafarinia, A., Krispel, T. & Egger, J., 14 Feb. 2024, *Segmentation of the Aorta. Towards the Automatic Segmentation, Modeling, and Meshing of the Aortic Vessel Tree from Multicenter Acquisition - First Challenge, SEG.A. 2023, Held in Conjunction with MICCAI 2023, Proceedings: Towards the Automatic Segmentation, Modeling, and Meshing of the Aortic Vessel Tree from Multicenter Acquisition*. Pepe, A., Melito, G. M. & Egger, J. (Hrsg.). Band 1. S. 110-126 17 S. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); Band 14539 LNCS).

Modeling Anisotropic Electrical Conductivity of Blood: Translating Microscale Effects of Red Blood Cell Motion into a Macroscale Property of Blood

Jafarinia, A., Badeli, V., Krispel, T., Melito, G. M., Brenn, G., Reinbacher-Köstinger, A., Kaltenbacher, M. & Hochrainer, T., 1 Feb. 2024, in: *Bioengineering*. 11, 2, 19 S., 147.

Morphological parameters affecting false lumen thrombosis following type B aortic dissection: a systematic study based on simulations of idealized models

Jafarinia, A., Melito, G. M., Müller, T. S., Rolf-Pissarczyk, M., Holzapfel, G., Brenn, G., Ellermann, K. & Hochrainer, T., Juni 2023, in: *Biomechanics and Modeling in Mechanobiology*. 22, 3, S. 885–904 20 S.

Development of a reduced-order model for understanding FL thrombosis in type B aortic dissection using a global sensitivity analysis and polynomial chaos expansion

Melito, G. M., Jafarinaia, A., Müller, T. S., Rolf-Pissarczyk, M., Holzapfel, G., Brenn, G., Hochrainer, T. & Ellermann, K., 2023, *Proceedings of the 7th ECCOMAS Young Investigators Conference (ECCOMAS YIC 2023) Creators*.

Monitoring of false lumen thrombosis in type B aortic dissection by impedance cardiography - A multiphysics simulation study

Badeli, V., Jafarinaia, A., Melito, G. M., Müller, T. S., Reinbacher-Köstinger, A., Hochrainer, T., Brenn, G., Ellermann, K., Biro, O. & Kaltenbacher, M., 12 Dez. 2022, (Elektronische Veröffentlichung vor Drucklegung.) in: *International Journal for Numerical Methods in Biomedical Engineering*. e3669.

Bayesian inference of multi-sensors impedance cardiography for detection of aortic dissection

Badeli, V., Ranftl, S., Melito, G. M., Reinbacher-Koestinger, A., Von der Linden, W., Ellermann, K. & Biro, O., 14 Apr. 2022, in: *COMPEL - The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*. 41, 3, S. 824-839 16 S.

Sensitivity analysis for model optimization and calibration in type B aortic dissection

Melito, G. M., 13 Apr. 2022, 125 S.

Sensitivity analysis study on the effect of the fluid mechanics assumptions for the computation of electrical conductivity of flowing human blood

Melito, G. M., Müller, T. S., Badeli, V., Ellermann, K., Brenn, G. & Reinbacher-Köstinger, A., Sept. 2021, in: *Reliability Engineering & System Safety*. 213, 12 S., 107663.

Sensitivity Analysis of a Phenomenological Thrombosis Model and Growth Rate Characterisation

Melito, G. M., Jafarinaia, A., Hochrainer, T. & Ellermann, K., 9 Dez. 2020, in: *Journal of Biomedical Engineering and Biosciences*. 7, S. 31 - 40 10 S.

Sensitivity Analysis of a Hemodynamic-based Model for Thrombus Formation and Growth

Melito, G. M., Jafarinaia, A., Hochrainer, T. & Ellermann, K., 31 Juli 2020, *Proceedings of the 6th World Congress on Electrical Engineering and Computer Systems and Sciences (EECSS'20): ICBES'20*. Virtually, 8 S. ICBES 127

Electrode positioning to investigate the changes of the thoracic bioimpedance caused by aortic dissection – a simulation study

Badeli, V., Melito, G. M., Reinbacher-Köstinger, A., Biro, O. & Ellermann, K., 25 Juni 2020, in: *Journal of Electrical Bioimpedance*. 11, 1, S. 38-48 11 S., 1891-5469.

Numerical simulation of various electrode configurations in impedance cardiography to identify aortic dissection

Reinbacher-Köstinger, A., Badeli, V., Melito, G. M., Magele, C. & Biro, O., 17 März 2020, *17th International Conference on Electrical Bioimpedance, ICEBI 2019: ICEBI 2019, Joinville, Santa Catarina, Brazil, 9-14 June 2019*. Bertemes-Filho, P. (Hrsg.). Springer Singapore, S. 51-54 4 S. (IFMBE Proceedings; Band 72).

A comprehensive Workflow and Framework for immersive Virtual Endoscopy of dissected Aortae from CTA Data

Egger, J., Gunacker, S., Pepe, A., Melito, G. M., Gsaxner, C., Li, J., Ellermann, K. & Chen, X., 16 März 2020, *Medical Imaging 2020: Image-Guided Procedures, Robotic Interventions, and Modeling*. Fei, B. & Linte, C. A. (Hrsg.). Band 11315 . 1131531. (Proceedings of SPIE - The International Society for Optical Engineering; Band 11315).

On the Diagnosis of Aortic Dissection with Impedance Cardiography: A Bayesian Feasibility Study Framework with Multi-Fidelity Simulation Data

Ranftl, S., Melito, G. M., Badeli, V., Reinbacher-Köstinger, A., Ellermann, K. & Linden, W. V. D., Dez. 2019, in: *Proceedings MDPI AG*.

Sensitivity analysis for electrical detection of aortic dissection

Melito, G. M., Badeli, V., Reinbacher-Köstinger, A. & Ellermann, K., Nov. 2019, *Proceedings in Applied Mathematics and Mechanics: 90th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM)*. Wiley-VCH, Band 19,1. 2 S. e201900062

A Reliability Analysis with an Active-learning Metamodel for the Reconstruction of a Dissected Aorta Cross-section
Melito, G. M. & Ellermann, K., 28 Okt. 2019.

Numerical simulation of various electrode configurations in impedance cardiography to identify aortic dissection
Reinbacher-Köstinger, A., Badeli, V., Melito, G. M., Magele, C. & Biro, O., 10 Juni 2019, (Unveröffentlicht).

Bayesian Uncertainty Quantification with Multi-Fidelity Data and Gaussian Processes for Impedance Cardiography of Aortic Dissection
Ranftl, S., Melito, G. M., Badeli, V., Reinbacher-Köstinger, A., Ellermann, K. & Linden, W. V. D., 2019, in: Entropy.

Aktivitäten

Determination and sensitivity analysis of optimal control parameters of actively steered wheelsets
Lindbichler, L. (Redner/in), Klanner, M. (Beitragende/r), Melito, G. M. (Beitragende/r) & Ellermann, K. (Beitragende/r)
9 Sept. 2024 → 11 Sept. 2024

9th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2024
Melito, G. M. (Teilnehmer/-in), Pepe, A. (Teilnehmer/-in) & Egger, J. (Teilnehmer/-in)
6 Juni 2024

9th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2024
Schussnig, R. (Organisator/-in), Melito, G. M. (Organisator/-in), Ranno, A. (Organisator/-in), Armour, C. H. (Organisator/-in), Rolf-Pissarczyk, M. (Organisator/-in) & Steinbrecher, I. (Organisator/-in)
5 Juni 2024 → 6 Juni 2024

Sensitivity analysis as a tool for optimization of aortic segmentation algorithms from CT scan images
Melito, G. M. (Redner/in)
7 Mai 2024

SEG.A. 2023 - Towards the Automatic Segmentation, Modeling and Meshing of the Aortic Vessel Tree from Multicenter Acquisitions (Veranstaltung)
Pepe, A. (Herausgeber/in), Melito, G. M. (Herausgeber/in) & Egger, J. (Herausgeber/in)
11 März 2024

SEG.A. 2023 - Towards the Automatic Segmentation, Modeling and Meshing of the Aortic Vessel Tree from Multicenter Acquisitions
Pepe, A. (Organisator/-in), Melito, G. M. (Organisator/-in) & Egger, J. (Organisator/-in)
8 Okt. 2023

Development of a ROM for understanding FL thrombosis in type B aortic dissection using a global sensitivity analysis and polynomial chaos expansion
Melito, G. M. (Redner/in), Jafarina, A. (Beitragende/r), Müller, T. S. (Beitragende/r), Rolf-Pissarczyk, M. (Beitragende/r), Holzapfel, G. (Beitragende/r), Brenn, G. (Beitragende/r), Hochrainer, T. (Beitragende/r) & Ellermann, K. (Beitragende/r)
19 Juni 2023

SEG.A. 2023 - Towards the Automatic Segmentation, Modeling and Meshing of the Aortic Vessel Tree from Multicenter Acquisitions
Pepe, A. (Organisator/-in), Melito, G. M. (Organisator/-in) & Egger, J. (Organisator/-in)
15 Juni 2023 → 31 Aug. 2023

Impact of false lumen thrombosis on blood flow dynamics and electrical conductivity in type B aortic dissection
Melito, G. M. (Redner/in), Badeli, V. (Beitragende/r), Jafarina, A. (Beitragende/r), Müller, T. S. (Beitragende/r), Reinbacher-Köstinger, A. (Beitragende/r), Hochrainer, T. (Beitragende/r), Brenn, G. (Beitragende/r), Bíró, O. (Beitragende/r), Kaltenbacher, M. (Beitragende/r) & Ellermann, K. (Beitragende/r)
1 Okt. 2022

Time calibration of a novel phenomenological thrombus formation model through global sensitivity analysis and a Bayesian approach

Melito, G. M. (Redner/in), Jafarinaia, A. (Beitragende/r), Ranftl, S. (Beitragende/r), von der Linden, W. (Beitragende/r), Hochrainer, T. (Beitragende/r) & Ellermann, K. (Beitragende/r)
7 Juni 2022

Sensitivity analysis of a hemodynamic-based model for thrombus formation and growth

Melito, G. M. (Redner/in), Jafarinaia, A. (Beitragende/r), Hochrainer, T. (Beitragende/r) & Ellermann, K. (Beitragende/r)
15 Aug. 2020

A Reliability Analysis with an Active-learning Metamodel for the Reconstruction of a Dissected Aorta Cross-section

Melito, G. M. (Redner/in) & Ellermann, K. (Beitragende/r)
29 Okt. 2019

Projekte

Aortendissektion

Egger, J. (Teilnehmer (Co-Investigator)), Pepe, A. (Teilnehmer (Co-Investigator)), Schmalstieg, D. (Teilnehmer (Co-Investigator)), Schussnig, R. (Teilnehmer (Co-Investigator)), von der Linden, W. (Teilnehmer (Co-Investigator)), Melito, G. M. (Teilnehmer (Co-Investigator)), Holzapfel, G. (Teilnehmer (Co-Investigator)), Ramalho Queiroz Pacheco, D. (Teilnehmer (Co-Investigator)), Jafarinaia, A. (Teilnehmer (Co-Investigator)), Brenn, G. (Teilnehmer (Co-Investigator)), Ranftl, S. (Teilnehmer (Co-Investigator)), Müller, T. S. (Teilnehmer (Co-Investigator)), Gupta, I. (Teilnehmer (Co-Investigator)), Steinbach, O. (Teilnehmer (Co-Investigator)), Fries, T.-P. (Teilnehmer (Co-Investigator)), Badeli, V. (Teilnehmer (Co-Investigator)), Hochrainer, T. (Teilnehmer (Co-Investigator)), Schanz, M. (Teilnehmer (Co-Investigator)), Rolf-Pissarczyk, M. (Teilnehmer (Co-Investigator)), Biro, O. (Teilnehmer (Co-Investigator)) & Ellermann, K. (Teilnehmer (Co-Investigator))
1/01/18 → 31/12/20