List of publications

Agnieszka Borowska

2nd of April 2025

Estimated contribution below each position (EC).

[1] J. Devlin, A. Borowska, D. Husmeier, and J. Mackenzie. "Approximate Bayesian inference in a model for self-generated gradient collective cell movement". In: *Computational Statistics* (2025), pp. 1–54. DOI: 10.1007/s00180-025-01606-5.
EC: 25%.

[2] A. Borowska, M. J. Colebank, M. S. Olufsen, and D. Husmeier. "Evaluating closed-loop effects from vasodilator administration for pulmonary hypertension treatment". In: *5th International Conference on Statistics: Theory and Applications, ICSTA 2023*. 162. Avestia Publishing. 2023, pp. 162–1. DOI: 10.11159/icsta23.162.
EC: 70%.

[3] A. Borowska and R. King. "Semi-complete data augmentation for efficient state space model fitting". In: *Journal of Computational and Graphical Statistics* 32.1 (2023), pp. 19–35. DOI: 10.1080/10618600.2022.2077350.
EC: 80%.

[4] A. Borowska, H. Gao, A. Lazarus, and D. Husmeier. "Bayesian optimisation for efficient parameter inference in a cardiac mechanics model of the left ventricle". In: *International Journal for Numerical Methods in Biomedical Engineering* 38.5 (2022), e3593. DOI: 10.1002/cnm.3593.
EC: 80%.

[5] A. Borowska, D. Giurghita, and D. Husmeier. "Gaussian process enhanced semi-automatic approximate Bayesian computation: parameter inference in a stochastic differential equation system for chemotaxis". In: *Journal of Computational Physics* 429 (2021), p. 109999. DOI: 10.1016/j.jcp.2020.109999.
EC: 60%.

[6] L. M. Paun, A. Borowska, M. J. Colebank, M. S. Olufsen, and D. Husmeier. "Inference in cardiovascular modelling subject to medical interventions". In: *3rd International Conference on Statistics: Theory and Applications, ICSTA 2021*. Avestia Publishing. 2021, pp. 1–8. DOI: 10.11159/icsta21.109.
EC: 40%.

[7] L. Romaszko, A. Borowska, A. Lazarus, D. Dalton, C. Berry, X. Luo, D. Husmeier, and H. Gao. "Neural network-based left ventricle geometry prediction from CMR images with application in biomechanics". In: *Artificial Intelligence in Medicine* 119 (2021), p. 102140. DOI: 10.1016/j.artmed.2021.102140.
EC: 40%.

[8] A. Borowska, L. Hoogerheide, S. J. Koopman, and H. K. van Dijk. "Partially censored posterior for robust and efficient risk evaluation". In: *Journal of Econometrics* 217.2 (2020), pp. 335–355. DOI: 10.1016/j.jeconom.2019.12.007.
EC: 80%.

[9] N. Baştürk, A. Borowska, S. Grassi, L. Hoogerheide, and H. K. van Dijk. "Forecast density combinations of dynamic models and data driven portfolio strategies". In: *Journal of Econometrics* 210.1 (2019), pp. 170–186. DOI: 10.1016/j.jeconom.2018.11.011.
EC: 30%.

[10] D. Husmeier, A. Lazarus, U. Noè, V. Davies, A. Borowska, B. Macdonald, H. Gao, C. Berry, and X. Luo. "Statistical Emulation of Cardiac Mechanics: An Important Step towards a Clinical Decision Support System". In: *International Conference of Statistics: Theory and Applications, ICSTA 2019*. Avestia Publishing. 2019, pp. 1–2. DOI: 10.11159/icsta19.29.
EC: 10%.

[11] L. Romaszko, A. Borowska, A. Lazarus, H. Gao, X. Luo, and D. Husmeier. "Direct learning left ventricular meshes from CMR images". In: *International Conference of Statistics: Theory and Applications, ICSTA 2019*. Avestia Publishing. 2019, pp. 1–4. DOI: 10.11159/icsta19.25.
EC: 30%.

[12] L. Romaszko, A. Lazarus, H. Gao, A. Borowska, X. Luo, and D. Husmeier. "Massive dimensionality reduction for the left ventricular mesh". In: *International Conference of Statistics: Theory and Applications, ICSTA 2019*. Avestia Publishing. 2019, pp. 1–8. DOI: 10.11159/icsta19.24.
EC: 30%.

[13] I. Barra, A. Borowska, and S. J. Koopman. "Bayesian dynamic modeling of high-frequency integer price changes". In: *Journal of Financial Econometrics* 16.3 (2018), pp. 384–424. DOI: 10.1093/jjfinec/nby010.
EC: 30%.