

Jeremy HENG

Associate Professor

heng@essec.edu

Department: Information Systems, Data Analytics
and Operations
Campus de Singapour

DIPLOMAS

DIPLOMAS

2017	PhD in Statistics (University of Oxford United Kingdom)
2012	BSc in Statistics (University College London United Kingdom)

CAREER

FULL-TIME ACADEMIC APPOINTMENTS

2019 - 2024-08-31	Assistant Professor (ESSEC Business School Singapore)
2024 - Now	Associate Professor (ESSEC Business School France)

OTHER ACADEMIC APPOINTMENTS

2017 - 2019-07-31	Postdoctoral Fellow (Harvard University United States of America)
2025 - 2026-08-31	Head of the BUSINESS ANALYTICS METHODS (BAM) Track (ESSEC Business School France)

PUBLICATIONS

CONFERENCE PROCEEDINGS

[LIN, A., ZHANG, Y., HENG, J., ALLSOP, S.A., TYE, K.M. et JACOB, P. \(2019\). Clustering Time Series with Nonlinear Dynamics: A Bayesian Non-Parametric and Particle-Based Approach. Dans: *Proceedings of Machine Learning Research*.](#)

[JACOB, P., LIN, A., ZHANG, Y., HENG, J., ALLSOP, S.A., TYE, K.M. et BA, D. \(2019\). Clustering Time Series with Nonlinear Dynamics: A Bayesian Non-Parametric and Particle-Based Approach. Dans: *The 22nd International Conference on Artificial Intelligence and Statistics*. Proceedings of Machine Learning Research, pp. 2476-2484.](#)

[DE BORTOLI, V., THORNTON, J., HENG, J. et DOUCET, A. \(2021\). Diffusion Schrödinger Bridge with Applications to Score-Based Generative Modeling. Dans: *NeurIPS 2021*. Proceedings of Machine Learning Research.](#)

[CHOPIN, N., FULOP, A., HENG, J. et THIERY, A.H. \(2023\). Computational Doob h-transforms for Online Filtering of Discretely Observed Diffusions. Dans: *Proceedings of the 40th International Conference on Machine Learning, PMLR 202:5904-5923*. Honolulu: Proceedings of Machine Learning Research.](#)

JOURNAL ARTICLES

[HENG, J. et JACOB, P. \(2019\). Unbiased Hamiltonian Monte Carlo with couplings. *Biometrika*, 106\(2\), pp. 287-302.](#)

[FULOP, A., HENG, J., LI, J. et LIU, H. \(2022\). Bayesian Estimation of Long-Run Risk Models Using Sequential Monte Carlo. *Journal of Econometrics*, 228\(1\), pp. 62-84.](#)

[JASRA, A., HENG, J., XU, Y. et BISHOP, A.N. \(2022\). A Multilevel Approach for Stochastic Nonlinear Optimal Control. *International Journal of Control*, 95\(5\), pp. 1290-1304.](#)

[HENG, J., DOUCET, A. et POKERN, Y. \(2021\). Gibbs flow for approximate transport with applications to Bayesian computation. *Journal of the Royal Statistical Society: Series B \(Statistical Methodology\)*, 83\(1\), pp. 157-187.](#)

[HENG, J., BISHOP, A.N., DELIGIANNIDIS, G. et DOUCET, A. \(2019\). Controlled Sequential Monte Carlo. *Annals of Statistics*, 48\(5\), pp. 2904-2929.](#)

[HENG, J., YU, F. et HENG, J. \(2020\). Multilevel Particle Filters for the Non-Linear Filtering Problem in Continuous Time. *Statistics and Computing*, 30, pp. 1381-1402.](#)

[DAI, C., HENG, J., JACOB, P. et WHITELEY, N. \(2022\). An invitation to sequential Monte Carlo samplers. *Journal of the American Statistical Association*, 117\(539\), pp. 1587-1600.](#)

[HENG, J., JASRA, A., LAW, K. et TARAKANOV, A. \(2023\). On Unbiased Estimation for Discretized Models. *SIAM/ASA Journal on Uncertainty Quantification*, 11\(2\), pp. 10.1137/21M1460788.](#)

[HENG, J., DE BORTOLI, V. et DOUCET, A. \(2024\). Diffusion Schrödinger Bridges for Bayesian](#)

[Computation. *Statistical Science*, 39\(1\), pp. 90-99.](#)

[HENG, J., HOUSSINEAU, J. et JASRA, A. \(2024\). On Unbiased Score Estimation for Partially Observed Diffusions. *Journal of Machine Learning Research*, 25\(66\), pp. 1-66.](#)

[HENG, J., DE BORTOLI, V., DOUCET, A. et THORNTON, J. \(2025\). Simulating diffusion bridges with score matching. *Biometrika*, In press.](#)

PRESENTATIONS AT AN ACADEMIC OR PROFESSIONAL CONFERENCE

[HENG, J., POKERN, Y. et DOUCET, A. \(2019\). Gibbs Flow for Approximate Transport with Applications to Bayesian Computation. Dans: International Conference on Scientific Computation and Differential Equations \(SciCADE 2019\).](#)

[HENG, J. \(2022\). Diffusion Schrodinger Bridge with Applications to Score-based Generative Modeling. Dans: 5th International Conference on Econometrics and Statistics \(EcoSta\) 2022. Kyoto.](#)

[FULOP, A., HENG, J. et LI, Y. \(2021\). Efficient Likelihood-based Estimation via Annealing for Dynamic Structural Macroeconomics Models. Dans: 2021 European Winter Meetings of the Econometric Society. Barcelona.](#)

[NIANQUIOA, J., HENG, J. et JACOB, P. \(2022\). Artificial Intelligence, Data challenges. Dans: 2022 Institute of Mathematical Statistics \(IMS\) Annual Meeting in Probability and Statistics. London.](#)

[JU, N., HENG, J. et JACOB, P. \(2024\). Statistical Inference for Individual-based Models of Disease Transmission. Dans: 2024 Eastern Asia Chapter International Society for Bayesian Analysis Conference. Hong Kong.](#)

[CHOPIN, N., FULOP, A., HENG, J. et THIERY, A.H. \(2024\). Computational Doob's h-transforms for Online Filtering. Dans: 6th Workshop on Sequential Monte Carlo Methods 2024. Edinburgh.](#)

RESEARCH ACTIVITIES

Editorial Board Membership

2022 - 2023: Associate Editor of Statistics and Computing