

Jeremy HENG

Professeur associé

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Département: Systèmes d'Information, Data

Analytics et Opérations

Campus de Singapour

DIPLÔMES

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- | | |
|------|--|
| 2017 | PhD en Statistiques
(University of Oxford Royaume-Uni) |
| 2012 | BSc en Statistiques
(University College London Royaume-Uni) |

CARRIÈRE

POSITIONS ACADÉMIQUES PRINCIPALES

- | | |
|-------------------|--|
| 2019 - 2024-08-31 | Professeur assistant (ESSEC Business School Singapour) |
| 2024 - Présent | Professeur associé (ESSEC Business School France) |

AUTRES POSITIONS ACADÉMIQUES

- | | |
|-------------------|---|
| 2017 - 2019-07-31 | Postdoctoral Fellow (Harvard University États-Unis) |
| 2025 - 2026-08-31 | Responsable de la filière BUSINESS ANALYTICS METHODS (BAM) (ESSEC Business School France) |

PUBLICATIONS

ACTES D'UNE CONFÉRENCE

[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*.](#)

ARTICLES

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

[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.](#)

[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.](#)

[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.](#)

COMMUNICATIONS DANS UNE CONFÉRENCE

[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.](#)

ACTIVITÉS DE RECHERCHE

Membre d'un comité de lecture

2022 - 2023: Co-Rédacteur en Chef de *Statistics and Computing*