

# Ajay Jasra

## List of Publications by Year in descending order

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98  
papers

3,129  
citations

331670

21  
h-index

168389

53  
g-index

100  
all docs

100  
docs citations

100  
times ranked

2204  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Wasserstein coupled particle filter for multilevel estimation. Stochastic Analysis and Applications, 2023, 41, 820-859.	1.5	0
2	A multilevel approach for stochastic nonlinear optimal control. International Journal of Control, 2022, 95, 1290-1304.	1.9	1
3	Randomized Multilevel Monte Carlo for Embarrassingly Parallel Inference. Communications in Computer and Information Science, 2022, , 3-21.	0.5	1
4	Unbiased estimation of the gradient of the log-likelihood for a class of continuous-time state-space models. Monte Carlo Methods and Applications, 2022, 28, 61-83.	0.8	2
5	Unbiased parameter inference for a class of partially observed Lévy-process models. , 2022, 4, 299.		2
6	Unbiased approximation of posteriors via coupled particle Markov chain Monte Carlo. Statistics and Computing, 2022, 32, 1.	1.5	6
7	Multilevel estimation of normalization constants using ensemble Kalman-Bucy filters. Statistics and Computing, 2022, 32, 1.	1.5	7
8	Unbiased estimation of the Hessian for partially observed diffusions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	0
9	Unbiased filtering of a class of partially observed diffusions. Advances in Applied Probability, 2022, 54, 661-687.	0.7	6
10	Multilevel Ensemble Kalman-Bucy Filters. SIAM-ASA Journal on Uncertainty Quantification, 2022, 10, 584-618.	2.0	5
11	Unbiased Inference for Discretely Observed Hidden Markov Model Diffusions. SIAM-ASA Journal on Uncertainty Quantification, 2021, 9, 763-787.	2.0	12
12	Score-Based Parameter Estimation for a Class of Continuous-Time State Space Models. SIAM Journal of Scientific Computing, 2021, 43, A2555-A2580.	2.8	4
13	Asymptotic behaviour of the posterior distribution in approximate Bayesian computation. Stochastic Analysis and Applications, 2021, 39, 944-979.	1.5	0
14	Markov chain simulation for multilevel Monte Carlo. , 2021, 3, 27.		4
15	Unbiased estimation of the gradient of the log-likelihood in inverse problems. Statistics and Computing, 2021, 31, 1.	1.5	11
16	Uncertainty modelling and computational aspects of data association. Statistics and Computing, 2021, 31, 1.	1.5	4
17	Central limit theorems for coupled particle filters. Advances in Applied Probability, 2020, 52, 942-1001.	0.7	6
18	A practical and efficient approach for Bayesian quantum state estimation. New Journal of Physics, 2020, 22, 063038.	2.9	68

#	ARTICLE	IF	CITATIONS
19	Advanced Multilevel Monte Carlo Methods. <i>International Statistical Review</i> , 2020, 88, 548-579.	1.9	6
20	Multilevel particle filters for the non-linear filtering problem in continuous time. <i>Statistics and Computing</i> , 2020, 30, 1381-1402.	1.5	8
21	Unbiased estimation of the solution to Zakai's equation. <i>Monte Carlo Methods and Applications</i> , 2020, 26, 113-129.	0.8	3
22	Computationally efficient Bayesian quantum state tomography. , 2020, , .		0
23	Identification of MultiObject Dynamical Systems: Consistency and Fisher Information. <i>SIAM Journal on Control and Optimization</i> , 2019, 57, 2603-2627.	2.1	2
24	Bayesian inference for stable Lévy-driven stochastic differential equations with high-frequency data. <i>Scandinavian Journal of Statistics</i> , 2019, 46, 545-574.	1.4	5
25	Multilevel Monte Carlo in approximate Bayesian computation. <i>Stochastic Analysis and Applications</i> , 2019, 37, 346-360.	1.5	8
26	On Large Lag Smoothing for Hidden Markov Models. <i>SIAM Journal on Numerical Analysis</i> , 2019, 57, 2812-2828.	2.3	1
27	Multilevel particle filters for Lévy-driven stochastic differential equations. <i>Statistics and Computing</i> , 2019, 29, 775-789.	1.5	7
28	A method for high-dimensional smoothing. <i>Journal of the Korean Statistical Society</i> , 2019, 48, 50-67.	0.4	1
29	Optimization Based Methods for Partially Observed Chaotic Systems. <i>Foundations of Computational Mathematics</i> , 2019, 19, 485-559.	2.5	2
30	Error bounds for sequential Monte Carlo samplers for multimodal distributions. <i>Bernoulli</i> , 2019, 25, .	1.3	7
31	Multilevel particle filters: normalizing constant estimation. <i>Statistics and Computing</i> , 2018, 28, 47-60.	1.5	16
32	On coupling particle filter trajectories. <i>Statistics and Computing</i> , 2018, 28, 461-475.	1.5	18
33	A sharp first order analysis of Feynman-Kac particle models, Part II: Particle Gibbs samplers. <i>Stochastic Processes and Their Applications</i> , 2018, 128, 354-371.	0.9	1
34	A sharp first order analysis of Feynman-Kac particle models, Part I: Propagation of chaos. <i>Stochastic Processes and Their Applications</i> , 2018, 128, 332-353.	0.9	4
35	On concentration properties of partially observed chaotic systems. <i>Advances in Applied Probability</i> , 2018, 50, 440-479.	0.7	1
36	Particle Filtering for Stochastic Navier-Stokes Signal Observed with Linear Additive Noise. <i>SIAM Journal of Scientific Computing</i> , 2018, 40, A1544-A1565.	2.8	11

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37	Bayesian Static Parameter Estimation for Partially Observed Diffusions via Multilevel Monte Carlo. SIAM Journal of Scientific Computing, 2018, 40, A887-A902.	2.8	18
38	Multilevel Sequential Monte Carlo with Dimension-Independent Likelihood-Informed Proposals. SIAM-ASA Journal on Uncertainty Quantification, 2018, 6, 762-786.	2.0	22
39	Unbiased multi-index Monte Carlo. Stochastic Analysis and Applications, 2018, 36, 257-273.	1.5	4
40	A note on random walks with absorbing barriers and sequential Monte Carlo methods. Stochastic Analysis and Applications, 2018, 36, 413-442.	1.5	2
41	Multilevel Monte Carlo for Smoothing via Transport Methods. SIAM Journal of Scientific Computing, 2018, 40, A2315-A2335.	2.8	4
42	Estimating option prices using multilevel particle filters. Big Data & Information Analytics, 2018, 3, 24-40.	1.3	0
43	Multilevel sequential Monte Carlo: Mean square error bounds under verifiable conditions. Stochastic Analysis and Applications, 2017, 35, 478-498.	1.5	8
44	A stable particle filter for a class of high-dimensional state-space models. Advances in Applied Probability, 2017, 49, 24-48.	0.7	43
45	Biased Online Parameter Inference for State-Space Models. Methodology and Computing in Applied Probability, 2017, 19, 727-749.	1.2	5
46	Multilevel Sequential Monte Carlo Samplers for Normalizing Constants. ACM Transactions on Modeling and Computer Simulation, 2017, 27, 1-22.	0.8	14
47	Some contributions to sequential Monte Carlo methods for option pricing. Journal of Statistical Computation and Simulation, 2017, 87, 733-752.	1.2	6
48	Multilevel sequential Monte Carlo samplers. Stochastic Processes and Their Applications, 2017, 127, 1417-1440.	0.9	56
49	Bayesian inference for multiple Gaussian graphical models with application to metabolic association networks. Annals of Applied Statistics, 2017, 11, .	1.1	23
50	Multilevel Particle Filters. SIAM Journal on Numerical Analysis, 2017, 55, 3068-3096.	2.3	52
51	On the convergence of adaptive sequential Monte Carlo methods. Annals of Applied Probability, 2016, 26, .	1.3	45
52	Theory of segmented particle filters. Advances in Applied Probability, 2016, 48, 69-87.	0.7	3
53	Variational inference for sparse spectrum Gaussian process regression. Statistics and Computing, 2016, 26, 1243-1261.	1.5	7
54	Twisting the Alive Particle Filter. Methodology and Computing in Applied Probability, 2016, 18, 335-358.	1.2	2

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55	Monte Carlo algorithms for computing $\alpha$ -permanents. <i>Statistics and Computing</i> , 2016, 26, 231-248.	1.5	3
56	FORWARD AND INVERSE UNCERTAINTY QUANTIFICATION USING MULTILEVEL MONTE CARLO ALGORITHMS FOR AN ELLIPTIC NONLOCAL EQUATION. , 2016, 6, 501-514.		9
57	On the Behaviour of the Backward Interpretation of Feynman-Kac Formulae Under Verifiable Conditions. <i>Journal of Applied Probability</i> , 2015, 52, 339-359.	0.7	4
58	Bayesian Inference for Duplication-Mutation with Complementarity Network Models. <i>Journal of Computational Biology</i> , 2015, 22, 1025-1033.	1.6	8
59	Approximate Bayesian Computation for a Class of Time Series Models. <i>International Statistical Review</i> , 2015, 83, 405-435.	1.9	18
60	Parameter Estimation in Hidden Markov Models With Intractable Likelihoods Using Sequential Monte Carlo. <i>Journal of Computational and Graphical Statistics</i> , 2015, 24, 846-865.	1.7	11
61	Sequential Monte Carlo methods for Bayesian elliptic inverse problems. <i>Statistics and Computing</i> , 2015, 25, 727-737.	1.5	37
62	Network-Based Finite-time Sampled-data Observer Design for Switched Linear Systems. <i>IFAC-PapersOnLine</i> , 2015, 48, 590-595.	0.9	2
63	Robust Finite-Time Control of Switched Linear Systems and Application to a Class of Servomechanism Systems. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015, 20, 2476-2485.	5.8	113
64	The Alive Particle Filter and Its Use in Particle Markov Chain Monte Carlo. <i>Stochastic Analysis and Applications</i> , 2015, 33, 943-974.	1.5	19
65	A Simulation Approach for Change-Points on Phylogenetic Trees. <i>Journal of Computational Biology</i> , 2015, 22, 10-24.	1.6	2
66	Extended finite-time $H^\infty$ control for uncertain switched linear neutral systems with time-varying delays. <i>Neurocomputing</i> , 2015, 152, 377-387.	5.9	43
67	Gradient Free Parameter Estimation for Hidden Markov Models with Intractable Likelihoods. <i>Methodology and Computing in Applied Probability</i> , 2015, 17, 315-349.	1.2	11
68	Error Bounds and Normalising Constants for Sequential Monte Carlo Samplers in High Dimensions. <i>Advances in Applied Probability</i> , 2014, 46, 279-306.	0.7	22
69	Approximate Bayesian Computation for Smoothing. <i>Stochastic Analysis and Applications</i> , 2014, 32, 397-420.	1.5	17
70	Approximate Inference for Observation-Driven Time Series Models with Intractable Likelihoods. <i>ACM Transactions on Modeling and Computer Simulation</i> , 2014, 24, 1-25.	0.8	7
71	Sequential Monte Carlo Methods for High-Dimensional Inverse Problems: A Case Study for the Navier-Stokes Equations. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2014, 2, 464-489.	2.0	54
72	Computational Methods for a Class of Network Models. <i>Journal of Computational Biology</i> , 2014, 21, 141-161.	1.6	7

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73	Bayesian parameter inference for partially observed stopped processes. <i>Statistics and Computing</i> , 2014, 24, 1-20.	1.5	6
74	Parameter Estimation for Hidden Markov Models with Intractable Likelihoods. <i>Scandinavian Journal of Statistics</i> , 2014, 41, 970-987.	1.4	36
75	On the stability of sequential Monte Carlo methods in high dimensions. <i>Annals of Applied Probability</i> , 2014, 24, .	1.3	94
76	A Bayesian mixture of lasso regressions with $\sum_{i=1}^p \beta_i^2$ . <i>Journal of the Royal Society Series B</i> , 2014, 72, 1-15.	1.2	3
77	Error Bounds and Normalising Constants for Sequential Monte Carlo Samplers in High Dimensions. <i>Advances in Applied Probability</i> , 2014, 46, 279-306.	0.7	11
78	Likelihood computation for hidden Markov models via generalized two-filter smoothing. <i>Statistics and Probability Letters</i> , 2013, 83, 1433-1442.	0.7	4
79	Inference for a class of partially observed point process models. <i>Annals of the Institute of Statistical Mathematics</i> , 2013, 65, 413-437.	0.8	4
80	MODEL-BASED CLUSTERING WITH GENE RANKING USING PENALIZED MIXTURES OF HEAVY-TAILED DISTRIBUTIONS. <i>Journal of Bioinformatics and Computational Biology</i> , 2013, 11, 1341007.	0.8	5
81	On adaptive resampling strategies for sequential Monte Carlo methods. <i>Bernoulli</i> , 2012, 18, .	1.3	104
82	Filtering via approximate Bayesian computation. <i>Statistics and Computing</i> , 2012, 22, 1223-1237.	1.5	62
83	Robust and adaptive algorithms for online portfolio selection. <i>Quantitative Finance</i> , 2012, 12, 1651-1662.	1.7	9
84	An adaptive sequential Monte Carlo method for approximate Bayesian computation. <i>Statistics and Computing</i> , 2012, 22, 1009-1020.	1.5	315
85	Linear variance bounds for particle approximations of time-homogeneous Feynman-Kac formulae. <i>Stochastic Processes and Their Applications</i> , 2012, 122, 1840-1865.	0.9	12
86	Sequential Monte Carlo Methods for Option Pricing. <i>Stochastic Analysis and Applications</i> , 2011, 29, 292-316.	1.5	21
87	On nonlinear Markov chain Monte Carlo. <i>Bernoulli</i> , 2011, 17, .	1.3	22
88	Inference for Lévy-Driven Stochastic Volatility Models via Adaptive Sequential Monte Carlo. <i>Scandinavian Journal of Statistics</i> , 2011, 38, 1-22.	1.4	99
89	Stochastic boosting algorithms. <i>Statistics and Computing</i> , 2011, 21, 335-347.	1.5	6
90	The time machine: a simulation approach for stochastic trees. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 2350-2368.	2.1	4

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91	Sequential Monte Carlo methods for diffusion processes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3709-3727.	2.1	12
92	DECODE: a new method for discovering clusters of different densities in spatial data. Data Mining and Knowledge Discovery, 2009, 18, 337-369.	3.7	57
93	Antithetic Methods for Gibbs Samplers. Journal of Computational and Graphical Statistics, 2009, 18, 401-414.	1.7	4
94	A Note on Convergence of the Equi-Energy Sampler. Stochastic Analysis and Applications, 2008, 26, 298-312.	1.5	11
95	Population-Based Reversible Jump Markov Chain Monte Carlo. Biometrika, 2007, 94, 787-807.	2.4	73
96	On population-based simulation for static inference. Statistics and Computing, 2007, 17, 263-279.	1.5	147
97	Sequential Monte Carlo samplers. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2006, 68, 411-436.	2.2	1,010
98	Bayesian Mixture Modelling in Geochronology via Markov Chain Monte Carlo. Mathematical Geosciences, 2006, 38, 269-300.	0.9	57