Ajay Jasra

List of Publications by Year
in descending order

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	Sequential Monte Carlo samplers. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2006, 68, 411-436.	2.2	1,010
2	An adaptive sequential Monte Carlo method for approximate Bayesian computation. Statistics and Computing, 2012, 22, 1009-1020.	1.5	315
3	On population-based simulation for static inference. Statistics and Computing, 2007, 17, 263-279.	1.5	147
4	Robust Finite-Time Control of Switched Linear Systems and Application to a Class of Servomechanism Systems. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2476-2485.	5.8	113
5	On adaptive resampling strategies for sequential Monte Carlo methods. Bernoulli, 2012, 18, .	1.3	104
6	Inference for LÃ©vyâ€Driven Stochastic Volatility Models via Adaptive Sequential Monte Carlo. Scandinavian Journal of Statistics, 2011, 38, 1-22.	1.4	99
7	On the stability of sequential Monte Carlo methods in high dimensions. Annals of Applied Probability, 2014, 24, .	1.3	94
8	Population-Based Reversible Jump Markov Chain Monte Carlo. Biometrika, 2007, 94, 787-807.	2.4	73
9	A practical and efficient approach for Bayesian quantum state estimation. New Journal of Physics, 2020, 22, 063038.	2.9	68
10	Filtering via approximate Bayesian computation. Statistics and Computing, 2012, 22, 1223-1237.	1.5	62
11	Bayesian Mixture Modelling in Geochronology via Markov Chain Monte Carlo. Mathematical Geosciences, 2006, 38, 269-300.	0.9	57
12	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
13	Multilevel sequential Monte Carlo samplers. Stochastic Processes and Their Applications, 2017, 127, 1417-1440.	0.9	56
14	Sequential Monte Carlo Methods for High-Dimensional Inverse Problems: A Case Study for the Navier–Stokes Equations. SIAM-ASA Journal on Uncertainty Quantification, 2014, 2, 464-489.	2.0	54
15	Multilevel Particle Filters. SIAM Journal on Numerical Analysis, 2017, 55, 3068-3096.	2.3	52
16	On the convergence of adaptive sequential Monte Carlo methods. Annals of Applied Probability, 2016, 26, .	1.3	45
17	Extended finite-time Hâˆž control for uncertain switched linear neutral systems with time-varying delays. Neurocomputing, 2015, 152, 377-387.	5.9	43
18	A stable particle filter for a class of high-dimensional state-space models. Advances in Applied Probability, 2017, 49, 24-48.	0.7	43

#	Article	IF	Citations
19	Sequential Monte Carlo methods for Bayesian elliptic inverse problems. Statistics and Computing, 2015, 25, 727-737.	1.5	37
20	Parameter Estimation for Hidden Markov Models with Intractable Likelihoods. Scandinavian Journal of Statistics, 2014, 41, 970-987.	1.4	36
21	Bayesian inference for multiple Gaussian graphical models with application to metabolic association networks. Annals of Applied Statistics, 2017, 11, .	1.1	23
22	On nonlinear Markov chain Monte Carlo. Bernoulli, 2011, 17, .	1.3	22
23	Error Bounds and Normalising Constants for Sequential Monte Carlo Samplers in High Dimensions. Advances in Applied Probability, 2014, 46, 279-306.	0.7	22
24	Multilevel Sequential Monte Carlo with Dimension-Independent Likelihood-Informed Proposals. SIAM-ASA Journal on Uncertainty Quantification, 2018, 6, 762-786.	2.0	22
25	Sequential Monte Carlo Methods for Option Pricing. Stochastic Analysis and Applications, 2011, 29, 292-316.	1.5	21
26	The Alive Particle Filter and Its Use in Particle Markov Chain Monte Carlo. Stochastic Analysis and Applications, 2015, 33, 943-974.	1.5	19
27	Approximate Bayesian Computation for a Class of Time Series Models. International Statistical Review, 2015, 83, 405-435.	1.9	18
28	On coupling particle filter trajectories. Statistics and Computing, 2018, 28, 461-475.	1.5	18
29	Bayesian Static Parameter Estimation for Partially Observed Diffusions via Multilevel Monte Carlo. SIAM Journal of Scientific Computing, 2018, 40, A887-A902.	2.8	18
30	Approximate Bayesian Computation for Smoothing. Stochastic Analysis and Applications, 2014, 32, 397-420.	1.5	17
31	Multilevel particle filters: normalizing constant estimation. Statistics and Computing, 2018, 28, 47-60.	1.5	16
32	Multilevel Sequential Monte Carlo Samplers for Normalizing Constants. ACM Transactions on Modeling and Computer Simulation, 2017, 27, 1-22.	0.8	14
33	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
34	Linear variance bounds for particle approximations of time-homogeneous Feynmanâ€“Kac formulae. Stochastic Processes and Their Applications, 2012, 122, 1840-1865.	0.9	12
35	Unbiased Inference for Discretely Observed Hidden Markov Model Diffusions. SIAM-ASA Journal on Uncertainty Quantification, 2021, 9, 763-787.	2.0	12
36	A Note on Convergence of the Equi-Energy Sampler. Stochastic Analysis and Applications, 2008, 26, 298-312.	1.5	11

#	Article	IF	Citations
37	Error Bounds and Normalising Constants for Sequential Monte Carlo Samplers in High Dimensions. Advances in Applied Probability, 2014, 46, 279-306.	0.7	11
38	Parameter Estimation in Hidden Markov Models With Intractable Likelihoods Using Sequential Monte Carlo. Journal of Computational and Graphical Statistics, 2015, 24, 846-865.	1.7	11
39	Gradient Free Parameter Estimation for Hidden Markov Models with Intractable Likelihoods. Methodology and Computing in Applied Probability, 2015, 17, 315-349.	1.2	11
40	Particle Filtering for Stochastic Navier–Stokes Signal Observed with Linear Additive Noise. SIAM Journal of Scientific Computing, 2018, 40, A1544-A1565.	2.8	11
41	Unbiased estimation of the gradient of the log-likelihood in inverse problems. Statistics and Computing, 2021, 31, 1.	1.5	11
42	Robust and adaptive algorithms for online portfolio selection. Quantitative Finance, 2012, 12, 1651-1662.	1.7	9
43	FORWARD AND INVERSE UNCERTAINTY QUANTIFICATION USING MULTILEVEL MONTE CARLO ALGORITHMS FOR AN ELLIPTIC NONLOCAL EQUATION. , 2016, 6, 501-514.		9
44	Bayesian Inference for Duplicationâ€“Mutation with Complementarity Network Models. Journal of Computational Biology, 2015, 22, 1025-1033.	1.6	8
45	Multilevel sequential Monte Carlo: Mean square error bounds under verifiable conditions. Stochastic Analysis and Applications, 2017, 35, 478-498.	1.5	8
46	Multilevel Monte Carlo in approximate Bayesian computation. Stochastic Analysis and Applications, 2019, 37, 346-360.	1.5	8
47	Multilevel particle filters for the non-linear filtering problem in continuous time. Statistics and Computing, 2020, 30, 1381-1402.	1.5	8
48	Approximate Inference for Observation-Driven Time Series Models with Intractable Likelihoods. ACM Transactions on Modeling and Computer Simulation, 2014, 24, 1-25.	0.8	7
49	Computational Methods for a Class of Network Models. Journal of Computational Biology, 2014, 21, 141-161.	1.6	7
50	Variational inference for sparse spectrum Gaussian process regression. Statistics and Computing, 2016, 26, 1243-1261.	1.5	7
51	Multilevel particle filters for LÃ©vy-driven stochastic differential equations. Statistics and Computing, 2019, 29, 775-789.	1.5	7
52	Error bounds for sequential Monte Carlo samplers for multimodal distributions. Bernoulli, 2019, 25, .	1.3	7
53	Multilevel estimation of normalization constants using ensemble Kalmanâ€“Bucy filters. Statistics and Computing, 2022, 32, 1.	1.5	7
54	Stochastic boosting algorithms. Statistics and Computing, 2011, 21, 335-347.	1.5	6

#	Article	IF	Citations
55	Bayesian parameter inference for partially observed stopped processes. Statistics and Computing, 2014, 24, 1-20.	1.5	6
56	Some contributions to sequential Monte Carlo methods for option pricing. Journal of Statistical Computation and Simulation, 2017, 87, 733-752.	1.2	6
57	Central limit theorems for coupled particle filters. Advances in Applied Probability, 2020, 52, 942-1001.	0.7	6
58	Advanced Multilevel Monte Carlo Methods. International Statistical Review, 2020, 88, 548-579.	1.9	6
59	Unbiased approximation of posteriors via coupled particle Markov chain Monte Carlo. Statistics and Computing, 2022, 32, 1.	1.5	6
60	Unbiased filtering of a class of partially observed diffusions. Advances in Applied Probability, 2022, 54, 661-687.	0.7	6
61	MODEL-BASED CLUSTERING WITH GENE RANKING USING PENALIZED MIXTURES OF HEAVY-TAILED DISTRIBUTIONS. Journal of Bioinformatics and Computational Biology, 2013, 11, 1341007.	0.8	5
62	Biased Online Parameter Inference for State-Space Models. Methodology and Computing in Applied Probability, 2017, 19, 727-749.	1.2	5
63	Bayesian inference for stable LÃ©vyâ€“driven stochastic differential equations with highâ€frequency data. Scandinavian Journal of Statistics, 2019, 46, 545-574.	1.4	5
64	Multilevel Ensemble Kalmanâ€“Bucy Filters. SIAM-ASA Journal on Uncertainty Quantification, 2022, 10, 584-618.	2.0	5
65	Antithetic Methods for Gibbs Samplers. Journal of Computational and Graphical Statistics, 2009, 18, 401-414.	1.7	4
66	The time machine: a simulation approach for stochastic trees. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2350-2368.	2.1	4
67	Likelihood computation for hidden Markov models via generalized two-filter smoothing. Statistics and Probability Letters, 2013, 83, 1433-1442.	0.7	4
68	Inference for a class of partially observed point process models. Annals of the Institute of Statistical Mathematics, 2013, 65, 413-437.	0.8	4
69	On the Behaviour of the Backward Interpretation of Feynman-Kac Formulae Under Verifiable Conditions. Journal of Applied Probability, 2015, 52, 339-359.	0.7	4
70	A sharp first order analysis of Feynmanâ€“Kac particle models, Part I: Propagation of chaos. Stochastic Processes and Their Applications, 2018, 128, 332-353.	0.9	4
71	Unbiased multi-index Monte Carlo. Stochastic Analysis and Applications, 2018, 36, 257-273.	1.5	4
72	Multilevel Monte Carlo for Smoothing via Transport Methods. SIAM Journal of Scientific Computing, 2018, 40, A2315-A2335.	2.8	4

#	Article	IF	Citations
73	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
74	Markov chain simulation for multilevel Monte Carlo. , 2021, 3, 27.		4
75	Uncertainty modelling and computational aspects of data association. Statistics and Computing, 2021, 31, 1.	1.5	4
76	A Bayesian mixture of lasso regressions with <mml:math altimg="si15.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	1.2	3
77	Theory of segmented particle filters. Advances in Applied Probability, 2016, 48, 69-87.	0.7	3
78	Monte Carlo algorithms for computing $$alpha $$ Î± -permanents. Statistics and Computing, 2016, 26, 231-248.	1.5	3
79	Unbiased estimation of the solution to Zakaiâ€™s equation. Monte Carlo Methods and Applications, 2020, 26, 113-129.	0.8	3
80	Network-Based Finite-time Sampled-data Observer Design for Switched Linear Systems. IFAC-PapersOnLine, 2015, 48, 590-595.	0.9	2
81	A Simulation Approach for Change-Points on Phylogenetic Trees. Journal of Computational Biology, 2015, 22, 10-24.	1.6	2
82	Twisting the Alive Particle Filter. Methodology and Computing in Applied Probability, 2016, 18, 335-358.	1.2	2
83	A note on random walks with absorbing barriers and sequential Monte Carlo methods. Stochastic Analysis and Applications, 2018, 36, 413-442.	1.5	2
84	Identification of MultiObject Dynamical Systems: Consistency and Fisher Information. SIAM Journal on Control and Optimization, 2019, 57, 2603-2627.	2.1	2
85	Optimization Based Methods for Partially Observed Chaotic Systems. Foundations of Computational Mathematics, 2019, 19, 485-559.	2.5	2
86	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
87	Unbiased parameter inference for a class of partially observed LÃ©vy-process models. , 2022, 4, 299.		2
88	A sharp first order analysis of Feynmanâ€“Kac particle models, Part II: Particle Gibbs samplers. Stochastic Processes and Their Applications, 2018, 128, 354-371.	0.9	1
89	On concentration properties of partially observed chaotic systems. Advances in Applied Probability, 2018, 50, 440-479.	0.7	1
90	On Large Lag Smoothing for Hidden Markov Models. SIAM Journal on Numerical Analysis, 2019, 57, 2812-2828.	2.3	1

#	Article	IF	Citations
91	A method for high-dimensional smoothing. Journal of the Korean Statistical Society, 2019, 48, 50-67.	0.4	1
92	A multilevel approach for stochastic nonlinear optimal control. International Journal of Control, 2022, 95, 1290-1304.	1.9	1
93	Randomized Multilevel Monte Carlo for Embarrassingly Parallel Inference. Communications in Computer and Information Science, 2022, , 3-21.	0.5	1
94	Asymptotic behaviour of the posterior distribution in approximate Bayesian computation. Stochastic Analysis and Applications, 2021, 39, 944-979.	1.5	0
95	Estimating option prices using multilevel particle filters. Big Data & Information Analytics, 2018, 3, 24-40.	1.3	0
96	Computationally efficient Bayesian quantum state tomography. , 2020, , .		0
97	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
98	A Wasserstein coupled particle filter for multilevel estimation. Stochastic Analysis and Applications, 2023, 41, 820-859.	1.5	0