

Mark S Joshi

List of Publications by Year in descending order

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103
papers

1,020
citations

623734

14
h-index

642732

23
g-index

103
all docs

103
docs citations

103
times ranked

237
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Inverse scattering on asymptotically hyperbolic manifolds. Acta Mathematica, 2000, 184, 41-86. | 3.9 | 86 |
| 2 | A displaced-diffusion stochastic volatility LIBOR market model: motivation, definition and implementation. Quantitative Finance, 2003, 3, 458-469. | 1.7 | 73 |
| 3 | Rapid and accurate development of prices and Greeks for default credit swaps in the Li model. Quantitative Finance, 2004, 4, 266-275. | 1.7 | 57 |
| 4 | A JOINT EMPIRICAL AND THEORETICAL INVESTIGATION OF THE MODES OF DEFORMATION OF SWAPTION MATRICES: IMPLICATIONS FOR MODEL CHOICE. International Journal of Theoretical and Applied Finance, 2002, 05, 667-694. | 0.5 | 54 |
| 5 | Partial proxy simulation schemes for generic and robust Monte Carlo Greeks. Journal of Computational Finance, 2008, 11, 79-106. | 0.3 | 32 |
| 6 | Rapid computation of drifts in a reduced factor LIBOR market model. Wilmott Magazine, 2003, 2003, 84-85. | 0.1 | 29 |
| 7 | Recovering asymptotics of metrics from fixed energy scattering data. Inventiones Mathematicae, 1999, 137, 127-143. | 2.5 | 25 |
| 8 | ACHIEVING HIGHER ORDER CONVERGENCE FOR THE PRICES OF EUROPEAN OPTIONS IN BINOMIAL TREES. Mathematical Finance, 2010, 20, 89-103. | 1.8 | 24 |
| 9 | A Simple Derivation of and Improvements to Jamshidian's and Rogers' Upper Bound Methods for Bermudan Options. Applied Mathematical Finance, 2007, 14, 197-205. | 1.2 | 23 |
| 10 | Recovering Asymptotics of Short Range Potentials. Communications in Mathematical Physics, 1998, 193, 197-208. | 2.2 | 22 |
| 11 | New and robust drift approximations for the LIBOR market model. Quantitative Finance, 2008, 8, 427-434. | 1.7 | 20 |
| 12 | Graphical Asian options. Wilmott Journal, 2010, 2, 97-107. | 0.4 | 20 |
| 13 | Bounding Bermudan swaptions in a swap-rate market model. Quantitative Finance, 2002, 2, 370-377. | 1.7 | 20 |
| 14 | The Wave Group on Asymptotically Hyperbolic Manifolds. Journal of Functional Analysis, 2001, 184, 291-312. | 1.4 | 18 |
| 15 | FAST MONTE CARLO GREEKS FOR FINANCIAL PRODUCTS WITH DISCONTINUOUS PAYOFFS. Mathematical Finance, 2013, 23, 459-495. | 1.8 | 18 |
| 16 | Fast and accurate Greeks for the LIBOR Market Model. Journal of Computational Finance, 2011, 14, 115-140. | 0.3 | 18 |
| 17 | Total determination of material parameters from electromagnetic boundary information. Pacific Journal of Mathematics, 2000, 193, 107-129. | 0.5 | 18 |
| 18 | Trinomial or binomial: Accelerating American put option price on trees. Journal of Futures Markets, 2009, 29, 826-839. | 1.8 | 17 |

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|----|---|-----|-----------|
| 19 | Flaming logs. Wilmott Journal, 2009, 1, 259-262. | 0.4 | 16 |
| 20 | Partial Proxy Simulation Schemes for Generic and Robust Monte-Carlo Greeks. SSRN Electronic Journal, 2006, , . | 0.4 | 15 |
| 21 | Achieving smooth asymptotics for the prices of European options in binomial trees. Quantitative Finance, 2009, 9, 171-176. | 1.7 | 15 |
| 22 | The convergence of binomial trees for pricing the American put. Journal of Risk, 2009, 11, 87-108. | 0.1 | 15 |
| 23 | Monte Carlo Bounds for Callable Products with Non-Analytic Break Costs. SSRN Electronic Journal, 0, , . | 0.4 | 15 |
| 24 | Algorithmic Hessians and the fast computation of cross-gamma risk. IIE Transactions, 2011, 43, 878-892. | 2.1 | 14 |
| 25 | PERTURBATION STABLE CONDITIONAL ANALYTIC MONTE-CARLO PRICING SCHEME FOR AUTO-CALLABLE PRODUCTS. International Journal of Theoretical and Applied Finance, 2011, 14, 197-219. | 0.5 | 13 |
| 26 | Practical policy iteration: Generic methods for obtaining rapid and tight bounds for Bermudan exotic derivatives using Monte Carlo simulation. Journal of Economic Dynamics and Control, 2013, 37, 1342-1361. | 1.6 | 13 |
| 27 | Effective Implementation of Generic Market Models. ASTIN Bulletin, 2007, 37, 453-473. | 1.0 | 12 |
| 28 | Effective sub-simulation-free upper bounds for the Monte Carlo pricing of callable derivatives and various improvements to existing methodologies. Journal of Economic Dynamics and Control, 2014, 40, 25-45. | 1.6 | 12 |
| 29 | A symbolic construction of the forward fundamental solution of the wave operator. Communications in Partial Differential Equations, 1998, 23, 1349-1417. | 2.2 | 10 |
| 30 | Explicitly recovering asymptotics of short range potentials. Communications in Partial Differential Equations, 2000, 25, 1907-1923. | 2.2 | 10 |
| 31 | Monte Carlo Market Greeks in the Displaced Diffusion LIBOR Market Model. SSRN Electronic Journal, 2010, , . | 0.4 | 10 |
| 32 | Optimal limit methods for computing sensitivities of discontinuous integrals including triggerable derivative securities. IIE Transactions, 2015, 47, 978-997. | 2.1 | 10 |
| 33 | Efficient Greek Estimation in Generic Market Models. SSRN Electronic Journal, 0, , . | 0.4 | 10 |
| 34 | Monte Carlo market Greeks in the displaced diffusion Libor market model. Journal of Risk, 2011, 14, 23-37. | 0.1 | 9 |
| 35 | Juggling Snowballs. SSRN Electronic Journal, 0, , . | 0.4 | 9 |
| 36 | Interpolation Schemes in the Displaced-Diffusion LIBOR Market Model and the Efficient Pricing and Greeks for Callable Range Accruals. SSRN Electronic Journal, 0, , . | 0.4 | 9 |

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|----|--|-----|-----------|
| 37 | Effective Implementation of Generic Market Models. ASTIN Bulletin, 2007, 37, 453-473. | 1.0 | 9 |
| 38 | The Convergence of Binomial Trees for Pricing the American Put. SSRN Electronic Journal, 2007, , . | 0.4 | 8 |
| 39 | Fast delta computations in the swap-rate market model. Journal of Economic Dynamics and Control, 2011, 35, 764-775. | 1.6 | 8 |
| 40 | Monte Carlo Bounds for Game Options Including Convertible Bonds. Management Science, 2011, 57, 960-974. | 4.1 | 8 |
| 41 | LEAST SQUARES MONTE CARLO CREDIT VALUE ADJUSTMENT WITH SMALL AND UNIDIRECTIONAL BIAS. International Journal of Theoretical and Applied Finance, 2016, 19, 1650048. | 0.5 | 8 |
| 42 | Minimal partial proxy simulation schemes for generic and robust Monte Carlo Greeks. Journal of Computational Finance, 2011, 15, 77-109. | 0.3 | 8 |
| 43 | Practical Policy Iteration: Generic Methods for Obtaining Rapid and Tight Bounds for Bermudan Exotic Derivatives Using Monte Carlo Simulation. SSRN Electronic Journal, 0, , . | 0.4 | 7 |
| 44 | FAST AND ACCURATE PRICING AND HEDGING OF LONG-DATED CMS SPREAD OPTIONS. International Journal of Theoretical and Applied Finance, 2010, 13, 839-865. | 0.5 | 7 |
| 45 | Conditional Analytic Monte-Carlo Pricing Scheme of Auto-Callable Products. SSRN Electronic Journal, 0, , . | 0.4 | 7 |
| 46 | Fast Delta Computations in the Swap-Rate Market Model. SSRN Electronic Journal, 0, , . | 0.4 | 7 |
| 47 | Automated Sensitivity Analysis for Bayesian Inference via Markov Chain Monte Carlo: Applications to Gibbs Sampling. SSRN Electronic Journal, 0, , . | 0.4 | 7 |
| 48 | Recovering Asymptotics of Coulomb-like Potentials from Fixed Energy Scattering Data. SIAM Journal on Mathematical Analysis, 1999, 30, 516-526. | 1.9 | 6 |
| 49 | Smooth Simultaneous Calibration of the LMM to Caplets and Coterminal Swaptions. SSRN Electronic Journal, 0, , . | 0.4 | 6 |
| 50 | Truncation and acceleration of the Tian tree for the pricing of American put options. Quantitative Finance, 2012, 12, 1695-1708. | 1.7 | 6 |
| 51 | An intrinsic characterisation of polyhomogeneous Lagrangian distributions. Proceedings of the American Mathematical Society, 1997, 125, 1537-1543. | 0.8 | 6 |
| 52 | Fast Monte-Carlo Greeks for Financial Products with Discontinuous Pay-Offs. SSRN Electronic Journal, 0, , . | 0.4 | 6 |
| 53 | The generation of semilinear singularities by a swallowtail caustic. American Journal of Mathematics, 1998, 120, 529-550. | 1.1 | 5 |
| 54 | Minimal Partial Proxy Simulation Schemes for Generic and Robust Monte-Carlo Greeks. SSRN Electronic Journal, 2009, , . | 0.4 | 5 |

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|----|--|-----|-----------|
| 55 | Smooth simultaneous calibration of the LMM to caplets and co-terminal swaptions. Quantitative Finance, 2011, 11, 547-558. | 1.7 | 5 |
| 56 | Optimal Limit Methods for Computing Sensitivities of Discontinuous Integrals Including Triggerable Derivative Securities. SSRN Electronic Journal, 2012, , . | 0.4 | 5 |
| 57 | Fast and accurate long-stepping simulation of the Heston stochastic volatility model. Journal of Computational Finance, 2013, 16, 47-97. | 0.3 | 5 |
| 58 | Comparing Discretization of the LIBOR Market Model in the Spot Measure. SSRN Electronic Journal, 0, , . | 0.4 | 5 |
| 59 | Fast and Accurate Greeks for the Libor Market Model. SSRN Electronic Journal, 2009, , . | 0.4 | 4 |
| 60 | Efficient Pricing and Greeks in the Cross-Currency LIBOR Market Model. SSRN Electronic Journal, 2010, , . | 0.4 | 4 |
| 61 | First and Second Order Greeks in the Heston Model. SSRN Electronic Journal, 2010, , . | 0.4 | 4 |
| 62 | PRICING AND DELTAS OF DISCRETELY-MONITORED BARRIER OPTIONS USING STRATIFIED SAMPLING ON THE HITTING-TIMES TO THE BARRIER. International Journal of Theoretical and Applied Finance, 2010, 13, 717-750. | 0.5 | 4 |
| 63 | Improved Sub-Simulation-Free Upper Bounds for the Monte Carlo Pricing of Callable Derivatives and Various Improvements to Existing Methodologies. SSRN Electronic Journal, 2012, , . | 0.4 | 4 |
| 64 | THE EFFICIENT COMPUTATION OF PRICES AND GREEKS FOR CALLABLE RANGE ACCRUALS USING THE DISPLACED-DIFFUSION LMM. International Journal of Theoretical and Applied Finance, 2014, 17, 1450001. | 0.5 | 4 |
| 65 | Optimal Partial Proxy Method for Computing Gammas of Financial Products with Discontinuous and Angular Payoffs. Applied Mathematical Finance, 2016, 23, 22-56. | 1.2 | 4 |
| 66 | Kooderive: Multi-Core Graphics Cards, the Libor Market Model, Least-Squares Monte Carlo and the Pricing of Cancellable Swaps. SSRN Electronic Journal, 0, , . | 0.4 | 4 |
| 67 | Achieving Higher Order Convergence for the Prices of European Options in Binomial Trees. SSRN Electronic Journal, 0, , . | 0.4 | 4 |
| 68 | Recovering the total singularity of a conormal potential from backscattering data. Annales De L'Institut Fourier, 1998, 48, 1513-1532. | 0.6 | 4 |
| 69 | Fast Sensitivity Computations for Monte Carlo Valuation of Pension Funds. SSRN Electronic Journal, 0, , . | 0.4 | 3 |
| 70 | On the analytical/numerical pricing of American put options against binomial tree prices. Quantitative Finance, 2012, 12, 17-20. | 1.7 | 3 |
| 71 | Optimal Partial Proxy Method for Computing Gammas of Financial Products with Discontinuous and Angular Payoffs. SSRN Electronic Journal, 2014, , . | 0.4 | 3 |
| 72 | Addendum to: Multilevel dual approach for pricing American style derivatives. Finance and Stochastics, 2015, 19, 681-684. | 1.1 | 3 |

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| 73 | Analysing the bias in the primal-dual upper bound method for early exercisable derivatives: bounds, estimation and removal. Quantitative Finance, 2016, 16, 519-533. | 1.7 | 3 |
| 74 | An exact method for the sensitivity analysis of systems simulated by rejection techniques. European Journal of Operational Research, 2016, 254, 875-888. | 5.7 | 3 |
| 75 | Achieving decorrelation and speed simultaneously in the Libor market model. Journal of Risk, 2006, 9, 147-153. | 0.1 | 3 |
| 76 | Trinomial or Binomial: Accelerating American Put Option Price on Trees. SSRN Electronic Journal, 2008, , . | 0.4 | 2 |
| 77 | Interpolation Schemes in the Displaced-Diffusion LIBOR Market Model. SIAM Journal on Financial Mathematics, 2012, 3, 593-604. | 1.3 | 2 |
| 78 | Analyzing the Bias in the Primal-Dual Upper Bound Method for Early Exercisable Derivatives: Bounds, Estimation and Removal. SSRN Electronic Journal, 2014, , . | 0.4 | 2 |
| 79 | Least Squares Monte Carlo Credit Value Adjustment with Small and Unidirectional Bias. SSRN Electronic Journal, 2016, , . | 0.4 | 2 |
| 80 | An Exact Method for the Sensitivity Analysis of Systems Simulated by Rejection Techniques. SSRN Electronic Journal, 0, , . | 0.4 | 2 |
| 81 | Monte Carlo Bounds for Game Options Including Convertible Bonds. SSRN Electronic Journal, 0, , . | 0.4 | 2 |
| 82 | Fast and Accurate Pricing and Hedging of Long-Dated CMS Spread Options. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 83 | Truncation and Acceleration of the Tian Tree for the Pricing of American Put Options. SSRN Electronic Journal, 2010, , . | 0.4 | 1 |
| 84 | Efficient greek estimation in generic swap-rate market models. Algorithmic Finance, 2011, 1, 17-33. | 0.3 | 1 |
| 85 | Accelerating Pathwise Greeks in the LIBOR Market Model. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 86 | ACCELERATING PATHWISE GREEKS IN THE LIBOR MARKET MODEL. International Journal of Theoretical and Applied Finance, 2012, 15, 1250012. | 0.5 | 1 |
| 87 | The Multiplicative Dual for Multiple-Exercise Options. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 88 | An Exact and Efficient Method for Computing Cross-Gammas of Bermudan Swaptions and Cancellable Swaps Under the Libor Market Model. SSRN Electronic Journal, 2014, , . | 0.4 | 1 |
| 89 | A new class of dual upper bounds for early exercisable derivatives encompassing both the additive and multiplicative bounds. Operations Research Letters, 2015, 43, 581-585. | 0.7 | 1 |
| 90 | The Use of Power Numeraires in Option Pricing. SSRN Electronic Journal, 2016, , . | 0.4 | 1 |

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|-----|---|-----|-----------|
| 91 | THE EFFICIENT COMPUTATION AND THE SENSITIVITY ANALYSIS OF FINITE-TIME RUIN PROBABILITIES AND THE ESTIMATION OF RISK-BASED REGULATORY CAPITAL. ASTIN Bulletin, 2016, 46, 431-467. | 1.0 | 1 |
| 92 | Non-parametric pricing of long-dated volatility derivatives under stochastic interest rates. Quantitative Finance, 2016, 16, 997-1008. | 1.7 | 1 |
| 93 | Vega Control. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 94 | A commutator proof of the propagation of polyhomogeneity for semi-linear equations. Communications in Partial Differential Equations, 1997, 22, 435-465. | 2.2 | 0 |
| 95 | The Robust Computation and the Sensitivity Analysis of Finite-Time Ruin Probabilities and the Estimation of Risk-Based Regulatory Capital. SSRN Electronic Journal, 2014, , . | 0.4 | 0 |
| 96 | A New Class of Dual Upper Bounds for Early Exercisable Derivatives Encompassing Both the Additive and Multiplicative Bounds. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 97 | The use of power numeraires in option pricing. Operations Research Letters, 2017, 45, 133-138. | 0.7 | 0 |
| 98 | Using Statistical Estimators to Gain Much Improved Convergence of Nested Monte-Carlo Simulations. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 99 | Sub-Simulation-Free Upper Bounds for Bermudan Derivatives. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 100 | Scattering on stratified media: the microlocal properties of the scattering matrix and recovering asymptotics of perturbations. Annales De L'Institut Fourier, 2003, 53, 565-624. | 0.6 | 0 |
| 101 | The Rate of Convergence of the Two-State Lattice Model for Pricing Vanilla Options. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 102 | An exact and efficient method for computing cross-Gammas of Bermudan swaptions and cancelable swaps under the Libor market model. Journal of Computational Finance, 0, , . | 0.3 | 0 |
| 103 | Automated Sensitivity Computations for Bayesian Markov Chain Monte Carlo Inference: A New Approach for Prior Robustness and Convergence Analysis. SSRN Electronic Journal, 0, , . | 0.4 | 0 |