

LIST OF PAPERS: MARK S. JOSHI

Books

- (1) M.S. Joshi, the Concepts and Practice of Mathematical Finance, Dec 2003, Cambridge University Press, second edition November 2008
- (2) M.S. Joshi, C++ Design Patterns and Derivatives Pricing, Cambridge University Press, June 2004, second edition May 2008
- (3) M.S. Joshi, chapter of second edition of “the Theory of Distributions” by F.G. Friedlander, Cambridge University Press, 1999
- (4) Mark Joshi, Nick Denson, Andrew Downes, Quant Job Interview Questions and Answers, Createspace May 2008, second edition May 2013 Pilot Whale Press
- (5) Mark Joshi, More Mathematical Finance, Pilot Whale Press 2011
- (6) Mark Joshi, Jane Paterson, Introduction to Mathematical Portfolio Theory, Cambridge University Press July 2013
- (7) Mark Joshi, Proof Patterns, Springer March 2015

Journal Papers

- (1) M.S. Joshi, An intrinsic characterization of polyhomogeneous Lagrangian distributions, *Proc Amer. Math. Soc.*, 125, (1997), no.5, 1537-1543
- (2) M.S. Joshi, Complex powers of the wave operator, *Portugaliae Mathematicae*, Vol 54 Fasc. 3 (1997), 345-362
- (3) M.S. Joshi, A commutator proof of the propagation of polyhomogeneity for semi-linear equations, *Communications on PDEs* Vol 22, (1997), No 3 and 4, 435-463
- (4) M.S. Joshi, Antonio sa Barreto, The generation of semi-linear singularities by a swallowtail caustic, *American Journal of Mathematics* 120 (1998), 529-550
- (5) M.S. Joshi, Antonio sa Barreto, Recovering asymptotics of short range potentials, *Commun. on Math Phys.* 193, 197-208 (1998)
- (6) M.S. Joshi, Recovering the total singularity of a potential from backscattering data, *Les Annales de L'institut Fourier*, 48, 5, (1998), 1513-1532
- (7) M.S. Joshi, A symbolic construction of the forward fundamental solution of the wave operator, *Communications in PDEs* Vol 23, Nos 7 & 8, 1998, 1349-1418
- (8) M.S. Joshi, Geometric proofs of composition theorems for generalized Fourier integral operators, *Portugaliae Mathematicae*, Vol. 56, Fasc 2 (1999), 129-154
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- (10) M.S. Joshi, A. Sa Barreto, Recovering asymptotics of magnetic potentials from fixed energy scattering data, *Asymptotic Analysis*, 21 (1999), 61-70
- (11) M.S. Joshi, Recovering asymptotics of Coulomb-like potentials, *SIAM Journal of Mathematical Analysis*, Vol. 30, no 3, 516-526, (1999)
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- (13) T.Christiansen, M.S. Joshi, Recovering asymptotics at infinity of perturbations of stratified media, *Journées Équation aux dérivées partielles*, (La Chapelle sur Erdre, 2000), Exp. No. II, 9 pp., Univ. Nantes, Nantes, 2000
- (14) M.S. Joshi, Explicitly recovering asymptotics from fixed energy scattering data, *Communications in P.D.E.s* 25(9-10), 1907-1923, (2000)
- (15) M.S. Joshi, A. Sa Barreto, Inverse scattering on asymptotically hyperbolic manifolds, *Acta Mathematica* Vol. 184, (2000), 41-86
- (16) T.J. Christiansen, M.S. Joshi, Higher Order Scattering on Asymptotically Euclidean Manifolds, *Canadian Journal of Mathematics*, 52 (2000), no. 5, 897–919
- (17) M.S. Joshi, A Sa Barreto, The Wave Group on Asymptotically Hyperbolic Manifolds, *Journal of Functional Analysis*, 184 (2001), no. 2, 291–312.
- (18) C.J. Hunter, P. Jäckel, M.S. Joshi, Drift Approximations in a Forward-Rate Based LIBOR Market Model, published in Risk Magazine as Getting the Drift, July 2001
- (19) M.S. Joshi, A model form for exact b -metrics, *Proceedings of the A.M.S.* Vol 129, Number 2, 581-584, (2001)
- (20) R. Rebonato, M.S. Joshi, 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*, Vol. 5, No. 7 (2002) 667-694
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- (25) R. Rebonato, S. Mahal, M. Joshi, L-D Buchholz, K. Nyholm, Evolving Yield Curves in the Real-World Measures: A Semi-Parametric Approach *Journal of Risk*, Vol. 7, No. 3, pp. 29–62, Spring 2005

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- (46) N. Denson, M.S. Joshi, Fast and Accurate Greeks for the Libor Market Model (August 13, 2009), *Journal of Computational Finance*, Vol 14, No 4, 115–140
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- (56) T. Chen. M.S. Joshi, Truncation and Acceleration of the Tian Tree for the Pricing of American Put Options, (March 9, 2010), <http://ssrn.com/abstract=1567218>, *Quantitative Finance* 2012, Vol 12, No 11, November, 1695–1708
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- (72) M.S. Joshi, and D. Zhu, The Robust Computation and the Sensitivity Analysis of Finite-time ruin Probabilities and the Estimation of Risk-Based Regulatory Capital. Oct 14, to appear *ASTIN Bulletin*
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- (1) M.S. Joshi, Rapid Drift Computations in the LIBOR market model, Wilmott May 2003, 84–85
- (2) M.S. Joshi, Applying importance sampling to pricing single tranches of CDOs in a one-factor Li model, Wilmott, Mar 2005
- (3) M.S. Joshi, Option Pricing and the Dirichlet problem, Wilmott Magazine, September 2006, 70–71
- (4) M.S. Joshi, The mathematics of money, article in *Princeton Companion to Mathematics*, 2008, 910–916
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preprints

- (1) M.S. Joshi, A precise calculus of paired Lagrangian distributions, *MIT thesis, 1994*
- (2) M.S. Joshi, Pricing Discretely Sampled Path-Dependent Exotic Options Using Replication Methods, preprint
- (3) M.S. Joshi, Monte Carlo bounds for callable products with non-analytic break costs, preprint
- (4) R. Rebonato, M.S. Joshi, The Kolmogorov Project, preprint
- (5) N. Denson, M.S. Joshi, Fast Greeks for Markov-Functional Models Using Adjoint Pde Methods (May 30, 2010). Available at SSRN: <http://ssrn.com/abstract=16180>
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