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Research outputs

A q Theory of Internal Capital Markets
Dai, M., Giroud, X., Jiang, W. & Wang, N., Apr 2024, In: Journal of Finance. 79, 2, p. 1147-1197 51 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Dynamic Trading with Realization Utility
Dai, M., Qin, C. & Wang, N., 15 Sept 2023, (Accepted/In press) In: Journal of Finance. p. 1-67 67 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Learning Equilibrium Mean-variance Strategy
Dai, M., Dong, Y. & Jia, Y., 4 Jun 2023, (E-pub ahead of print) In: Mathematical Finance. 47 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Leveraged Exchange-Traded Funds with Market Closure and Frictions
Dai, M., Kou, S., Soner, M. & Yang, C., 1 Apr 2023, In: Management Science. 69, 4, p. 2517 - 2535 19 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A Rational Theory for Disposition Effects
Dai, M., Jiang, Y., Liu, H. & Xu, J., Jan 2023, In: Review of Economic Dynamics. 47, p. 131-157 27 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Nonconcave Utility Maximization with Portfolio Bounds
Dai, M., Kou, S., Qian, S. & Wan, X., Nov 2022, In: Management Science. 68, 11, p. 8368-8385 18 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Asymptotic Analysis of Long-term Investment with Two Illiquid and Correlated Assets
Chen, X., Dai, M., Jiang, W. & Qin, C., Oct 2022, In: Mathematical Finance. 32, 4, p. 1133-1169 37 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A Stochastic Representation for Nonlocal Parabolic PDEs with Applications
Dai, M., Kou, S. & Yang, C., Aug 2022, In: Mathematics of Operations Research. 47, 3, p. 1707-1730 24 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Non-concave utility optimization with portfolio bounds
Dai, M., Kou, S., Qian, S. & Wan, X., 29 Dec 2021, (E-pub ahead of print) In: Management Science. p. 1-18 18 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Incomplete information and the liquidity premium puzzle
Chen, Y., Dai, M., Goncalves-Pinto, L., Xu, J. & Yan, C., Sept 2021, In: Management Science. 67, 9, p. 5703-5729 27 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

The wisdom of the crowd and prediction markets
Dai, M., Kou, S. & Jia, Y., May 2021, In: Journal of Econometrics. 222, 1, p. 561-578 18 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Penalty method for portfolio selection with capital gains tax
Bian, B., Chen, X., Dai, M. & Qian, S., 19 Apr 2021, In: Mathematical Finance. 31, 3, p. 1013-1055 43 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A dynamic mean-variance analysis for log returns
Dai, M., Jin, H., Kou, S. & Xu, Y., Feb 2021, In: Management Science. 67, 2, p. 1093-1108 16 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

How does illiquidity affect delegated portfolio choice?
Dai, M., Goncalves-Pinto, L. & Xu, J., Apr 2019, In: Journal of Financial and Quantitative Analysis. 54, 2, p. 539-585 47 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Opaque bank assets and optimal equity capital
Dai, M., Huang, S. & Keppo, J., Mar 2019, In: Journal of Economic Dynamics and Control. 100, p. 369-394 26 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Portfolio selection with capital gains tax, recursive utility, and regime switching
Dai, M., Cai, J. & Chen, X., May 2018, In: Management Science. 64, 5, p. 2308-2324 17 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A note on finite horizon optimal investment and consumption with transaction costs
Dai, M. & Yang, Z., Jul 2016, In: Discrete and Continuous Dynamical Systems - Series B. 21, 5, p. 1445-1454 10 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal trend following trading rules
Dai, M., Zhu, Q., Zhang, Q. & Yang, Z., May 2016, In: Mathematics of Operations Research. 41, 2, p. 626-642 17 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Calibration of stochastic volatility models: A Tikhonov regularization approach
Dai, M., Tang, L. & Yue, X., Mar 2016, In: Journal of Economic Dynamics and Control. 64, p. 66-81 16 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Portfolio choice with market closure and implications for liquidity premia
Dai, M., Li, P., Liu, H. & Wang, Y., Feb 2016, In: Management Science. 62, 2, p. 368-386 19 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Superhedging under ratio constraint
Chen, Y., Dai, M., Xu, J. & Xu, M., 1 Sept 2015, In: Journal of Economic Dynamics and Control. 58, p. 250-264 15 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal tax-timing with asymmetric long-term/short-term capital gains tax
Dai, M., Liu, H., Yang, C. & Zhong, Y., Sept 2015, In: Review of Financial Studies. 28, 9, p. 2687-2721 35 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Hiring, firing, and relocation under employment protection
Dai, M., Keppo, J. & Maull, T., 1 Jul 2015, In: Journal of Economic Dynamics and Control. 56, p. 55-81 27 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Pricing corporate debt with finite maturity and chapter 11 proceedings
Dai, M., Jiang, L. & Lin, J., Dec 2013, In: Quantitative Finance. 13, 12, p. 1855-1861 7 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A non-zero-sum game approach to convertible bonds: tax benefit, bankruptcy cost and early/late calls
Dai, M. & Chen, N., Jan 2013, In: Mathematical Finance. 23, 1, p. 57-93 37 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Characterization of optimal strategy for multi-asset investment and consumption with transaction costs
Dai, M. & Chen, X., 2013, In: SIAM Journal on Financial Mathematics. 4, 1, p. 857-883 27 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Leverage management in a bull-bear switching market
Dai, M., Wang, H. & Yang, Z., Oct 2012, In: Journal of Economic Dynamics and Control. 36, 10, p. 1585-1599 15 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal stock selling based on the global maximum
Dai, M., Yang, Z. & Zhong, Y., Aug 2012, In: SIAM Journal on Control and Optimization. 50, 4, p. 1804-1822 19 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal stock selling/buying strategy with reference to the ultimate average
Dai, M. & Zhong, Y., Jan 2012, In: Mathematical Finance. 22, 1, p. 165-184 20 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal Decision for Selling an Illiquid Stock
Bian, B., Dai, M., Jiang, L., Zhang, Q. & Zhong, Y., Nov 2011, In: Journal of Optimization Theory and Applications. 151, 2, p. 402-417 16 p., 402.
Research output: Journal article publication › Journal article › Academic research › peer-review

Illiquidity, position limits, and optimal investment for mutual funds
Dai, M., Jin, H. & Liu, H., Jul 2011, In: Journal of Economic Theory. 146, 4, p. 1598-1630 33 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal arbitrage strategies on stock index futures under position limits
Dai, M., Zhong, Y. & Kwok, Y. K., Apr 2011, In: Journal of Futures Markets. 31, 4, p. 394-406 13 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A lattice algorithm for pricing moving average barrier options
Dai, M., Li, P. & Zhang, J. E., Mar 2010, In: Journal of Economic Dynamics and Control. 34, 3, p. 542-554 13 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Continuous-time mean-variance portfolio selection with proportional transaction costs
Dai, M., Xu, Z. Q. & Zhou, X., 2010, In: SIAM Journal on Financial Mathematics. 1, 1, p. 96-125 30 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Trend following trading under a regime switching model
Dai, M., Zhang, Q. & Zhu, Q., 2010, In: SIAM Journal on Financial Mathematics. 1, 1, p. 780-810 31 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Pricing jump risk with utility indifference
Wu, L. & Dai, M., Mar 2009, In: Quantitative Finance. 9, 2, p. 177-186 10 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Finite horizon optimal investment with transaction costs: a parabolic double obstacle problem
Dai, M. & Yi, F., 15 Feb 2009, In: Journal of Differential Equations. 246, 4, p. 1445-1469 25 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Finite horizon optimal investment and consumption with transaction costs
Dai, M., Jiang, L., Li, P. & Yi, F., 2009, In: SIAM Journal on Control and Optimization. 48, 2, p. 1134-1154 21 p.

Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal multiple stopping models of reload options and shout options
Dai, M. & Kwok, Y. K., Jul 2008, In: Journal of Economic Dynamics and Control. 32, 7, p. 2269-2290 22 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Guaranteed minimum withdrawal benefit in variable annuities
Dai, M., Kwok, Y.-K. & Zong, J., 2008, In: Mathematical Finance. 18, 4, p. 595-611 17 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Intensity-based framework and penalty formulation of optimal stopping problems
Dai, M., Kwok, Y. K. & You, H., Dec 2007, In: Journal of Economic Dynamics and Control. 31, 12, p. 3860-3880 21 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A parabolic variational inequality arising from the valuation of strike reset options
Yang, Z., Yi, F. & Dai, M., 15 Nov 2006, In: Journal of Differential Equations. 230, 2, p. 481-501 21 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Characterization of optimal stopping regions of American Asian and lookback options
Dai, M. & Kwok, Y. K., Jan 2006, In: Mathematical Finance. 16, 1, p. 63-82 20 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal policies of call with notice period requirement
Dai, M. & Kwok, Y. K., Dec 2005, In: Asia-Pacific Financial Markets. 12, 4, p. 353-373 21 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

American options with lookback payoff
Dai, M. & Kwok, Y. K., Oct 2005, In: SIAM Journal on Applied Mathematics. 66, 1, p. 206-227 22 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Options with combined reset rights on strike and maturity
Dai, M. & Kwok, Y. K., Sept 2005, In: Journal of Economic Dynamics and Control. 29, 9, p. 1495-1515 21 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Convergence of binomial tree methods for European/American path-dependent options
Jiang, L. & Dai, M., Jul 2004, In: SIAM Journal on Numerical Analysis. 42, 3, p. 1094-1109 16 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Optimal shouting policies of options with strike reset right
Dai, M., Kwok, Y. K. & Wu, L., Jul 2004, In: Mathematical Finance. 14, 3, p. 383-401 19 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Quanto lookback options
Dai, M., Wong, H. Y. & Kwok, Y. K., Jul 2004, In: Mathematical Finance. 14, 3, p. 445-467 23 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Convergence of the explicit difference scheme and the binomial tree method for American options
Jiang, L. S. & Dai, M., May 2004, In: Journal of Computational Mathematics. 22, 3, p. 371-380 10 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Knock-in American Options
Dai, M. & Kwok, Y. K., Feb 2004, In: Journal of Futures Markets. 24, 2, p. 179-192 14 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Options with multiple reset rights
Dai, M., Kwok, Y. K. & Wu, L. X., Sept 2003, In: International Journal of Theoretical and Applied Finance. 6, 6, p. 637-653 17 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

One-state variable binomial models for European-/American-style geometric Asian options
Dai, M., Aug 2003, In: Quantitative Finance. 3, 4, p. 288-295 8 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Equivalent linearization method based on energy-to-cth-power difference criterion in nonlinear stochastic vibration analysis of multi-degree-of-freedom systems
Wang, G. Y. & Dai, M., Aug 2001, In: Applied Mathematics and Mechanics (English Edition). 22, 8, p. 947-955 9 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

A Modified Binomial Tree Method for Currency Lookback Options
Dai, M., Jul 2000, In: Acta Mathematica Sinica, English Series. 16, 3, p. 445-454 10 p.
Research output: Journal article publication › Journal article › Academic research › peer-review

Activities

12th World Congress of Bachelier Finance Society
Dai, M. (Invited speaker)
8 Jul 2024 → 12 Jul 2024

INFORMS Financial Services Section (External organisation)
Dai, M. (Executive member)
1 Jan 2022 → 31 Dec 2024

Finance and Stochastics (Journal)
Dai, M. (Associate editor)
Jan 2021 → …

Frontiers of Mathematical Finance (Journal)
Dai, M. (Associate editor)
Dec 2020 → …

Digital Finance (Journal)
Dai, M. (Vice editor in chief)
Dec 2018 → …

Mathematics and Financial Economics (Journal)
Dai, M. (Associate editor)
Jan 2017 → …

SIAM Journal on Financial Mathematics (Journal)
Dai, M. (Associate editor)
Jan 2016 → …

Asia-Pacific Journal of Operational Research (Journal)
Dai, M. (Associate editor)
May 2012 → …

Journal of Economic Dynamics and Control (Journal)
Dai, M. (Associate editor)
Jan 2010 → …