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Research fields
Mathematical Finance
Financial Engineering
Probability Theory

Key Words
Option pricing
Arbitrage opportunity
Stochastic differential equation
Partial differential equation

Subject of research on Data Science :

Fundamental research on financial markets using probability theory and its application.

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2. Yukihiro Tsuzuki, Pitman's Theorem, Black-Scholes Equation, and Derivative Pricing for Fundraisers, preprint.
3. Yukihiro Tsuzuki, Some perpetual integral functionals of the three-dimensional Bessel process, Stochastics and Dynamics, 23(2), 2023.
4. Akihiko Takahashi and Yukihiro Tsuzuki, Rebalancing Static Super-Replications, Journal of Financial Engineering, 4(1), 2017.
5. Akihiko Takahashi and Yukihiro Tsuzuki, A New Improvement Scheme for Approximation Methods of Probability Density Functions, Journal of Computational Finance, 19(4), 73-94, 2016.
6. Yukihiro Tsuzuki, Pricing bounds on quanto option, The Journal of Derivatives, 23(2), 53—61, 2015.
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8. Yukihiro Tsuzuki, Pricing bounds on barrier options, Journal of Futures Markets, 34(12), 1170—1184, 2014.
9. Yukihiro Tsuzuki, On optimal super-hedging and sub-hedging strategies, International Journal of Theoretical and Applied Finance, 16(6), 2013.