



•Field Insurance risk theory, levy processes and financial/insurance statistics

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•Title Professor

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I Educational background

1996-2004 Hallym University (Doctor of Science
– The Department of Statistics)
1992-1994 Hallym University (Master of Science
– The Department of Statistics)
1988-1992 Hallym University (Doctor of Science
– The Department of Statistics)

I Major careers

2023 – 2023 Adjunct Visiting Fellow in Health Insurance Review and Assessment Payroll Policy
2019 – 2020 Executive director, Higher Education Contributing Colleges Project of Ministry of Education
2018 - 2020 Dean of School of Data Sciences
2018 – 2018 Transit Reorganization TF member for Chuncheon City
2016 – 2018 Member of Admissions Consulting Preparation Committee, Korean Council for University Education
2016 - 2018 Dean of Admissions, Hallym University
2016 - 2017 President of the Gangwon Provincial Council of Admissions Deans
2009 - 2010 Research Assistant Professor, Pohang Mathematics Institute POSTECH
2007 - 2008 Overseas training researcher of the Complexity System Statistics Center, the Department of Computation Statistics, Seoul National University
2006 - 2007 Post-doc. Fellowship at MSI of Australian National University (the academic subsequent generation development project of the National Research Foundation of Korea)

■ Publications

1. Improved Bound of Four Moment Theorem and Its Application to Orthogonal Polynomials Associated with Laws (AIOMS, SCI, 2023)
2. Anomaly detection algorithm for mild cognitive impairment (Journal of the Korean Data & Information Science Society, KCI superior grade, 2023)
3. Bound for an Approximation of Invariant Density of Diffusions via Density Formula in Malliavin Calculus (Mathematics, SCI, 2023)
4. Normal approximation when a chaos grade is greater than two (Statistics & Probability Letters, SCI, 2022)
5. Fourth Cumulant Bound of Multivariate Normal Approximation on General Functionals of Gaussian Fields (Mathematics, SCI, 2022)
6. Fourth moment bound and stationary Gaussian processes with positive correlation (JKSS, SCI, 2022)
7. Quantitative Fourth Moment Theorem of Functions on the Markov Triple and Orthogonal Polynomials (J. of Function Spaces, SCI, 2021)
8. An edgeworth expansion for the ratio of two functionals of gaussian fields and optimal berry-Esseen bounds (Mathematics, SCI, 2021)
9. The optimal third moment theorem (JKSS, SCI, 2019)
10. An Edgeworth expansion for functionals of Gaussian fields and its applications (Stochastic processes and their applications, SCI, 2018)
11. Optimal Berry-Esseen bound for parameter estimation of SPDE with small noise (JKSS, SCI, 2018)
12. Convergence rate of a test statistics observed by the longitudinal data with long memory (Communications for Statistical applications and methods, KCI, SCOPUS, 2017)
13. Optimal Berry-Esseen bound for an estimator of parameter in the Ornstein-Uhlenbeck process (JKSS, SCI, 2017)
14. Optimal Berry-Esseen bound for statistical estimations and its application to SPDE (J. Multivariate Analysis, SCI, 2017)

15. Berry-Esseen Type bound of a sequence $\{X_N/Y_N\}$ and its application (JKSS, SCI, 2016)
16. Kolmogorov distance for the central limit theorems of the Wiener chaos expansion and applications (JOURNAL OF THE KOREAN STATISTICAL SOCIETY, 2015)
17. Convergence rate of CLT for the estimation of Hurst parameter of fractional Brownian motion (STATISTICS PROBABILITY LETTERS, 2015)
18. Convergence rate of maximum likelihood estimator of parameter in stochastic partial differential equation (JOURNAL OF THE KOREAN STATISTICAL SOCIETY, 2015)
19. Estimation of Hurst Parameter in Longitudinal Data with Long Memory (Communications for Statistical Applications and Methods, 2015)
20. Kolmogorov distance for multivariate normal approximation (Korea Mathematics Monographs, 2015)
21. Non-central limit theorem of the weighted power variations of Gaussian processes (JOURNAL OF THE KOREAN STATISTICAL SOCIETY, 2014)
22. Comparison of relative efficiency of kernel density estimator with the exponential map (JOURNAL OF THE KOREAN STATISTICAL SOCIETY, 2013)
23. Geometric structures arising from kernel density estimation on Riemannian manifold (Journal of Multivariate Analysis, 2013)
24. Evaluation of the Efficiency of an Inverse Exponential Kernel Estimator for Spherical Data (Communications for Statistical Applications and Methods, 2013)
25. Asymptotic behavior of the kernel density estimator from a geometric viewpoint (Communications in Statistics-Theory and Methods, 2012)
26. A mathematical modeling for the lookback option with jump-diffusion using binomial tree method (JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, 2011)
27. The central limit theorem for cross-variation related to the standard Brownian sheet and Berry Esseen bounds (Journal of the Korean Statistical Society, 2011)
28. A note on limiting distribution for jumps of Levy insurance risk model (Journal of the Korean Statistical Society, 2011)

29. Computing the Ruin Probability of Levy Insurance Risk Processes in non-Cramer Models (Korean Statistics Association Monographs, 2010)
30. Analytical binomial lookback options with double-exponential jumps (JOURNAL OF THE KOREAN STATISTICAL SOCIETY, 2009)
31. Differentiation formula in Stratonovich version for fractional Brownian sheet (JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, 2009)
32. Stratonovich Calculus with Respect to Fractional Brownian Sheet (STOCHASTIC ANALYSIS AND APPLICATIONS, 2009)
33. The Survival Probability of mortality intensity with jump-diffusion (Journal of the Korean Statistical Society, 2008)
34. Moment and MGF Convergence of Overshoots and Undershoots for Levy Insurance Risk Processes (Advances in Applied Probability, 2008)
35. Various types of stochastic integrals with respect to fractional Brownian sheet and their applications (JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, 2008)
36. The expansion of mean distance for Brownian motion on Riemannian manifolds (Stochastic Analysis and Applications, 2004)
37. Mean distance of Brownian motion on a Riemannian manifold (STOCHASTIC PROCESSES AND THEIR APPLICATIONS, 2002)
38. Parameter Estimation for a Hilbert Space Stochastic Differential Equation II (Journal of the Korean Statistical Society, 2002)
39. Denoising of a positive signal with white Gaussian noise by using Wavelet transform (The journal of Acoustical Society of Korea, 1998)
40. A study on Log-Fourier deconvolution The Korean (Communications in Statistics, 1997)