



## Dr. Sooppawat Thipyarat

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### Address

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### SHORT PROFESSIONAL BIO:

My research focuses on the numerical analysis of stochastic differential equations, particularly those driven by infinitely many jumps. I study the convergence of numerical schemes for these complex systems, drawing on stochastic calculus, measure theory, and advanced computational methods. By combining theory with simulation, I aim to bridge rigorous mathematics with real-world applications.

I apply these methods to problems in financial and actuarial mathematics, where uncertainty and complexity demand robust modelling and simulation. Using computational tools such as R, Python, Mathematica, and MATLAB, I develop simulations that provide insights into option pricing, risk management, and other areas where stochastic modeling is essential.

Alongside my mathematical research, I am committed to advancing mathematics education. I design interactive technologies, including R Shiny applets, to support teaching probability and statistics. By enabling students to experiment with simulations and visualizations, I seek to make abstract concepts more accessible and engaging. Through these contributions, I continue to connect theoretical mathematics with practical applications and innovative pedagogy.

**PUBLICATION PROFILE:** [Google Scholar](#)



## FULL BIO

### EDUCATION:

Degree	Degree Name	University	Year
Dr. rer. nat.	Mathematics	Friedrich Schiller University Jena, Germany	2024
M.Sc.	Mathematics	Friedrich Schiller University Jena, Germany	2020
B.Sc. (2nd Class Honors)	Mathematics	Chulalongkorn University	2017

### INTERESTING RESEARCH TOPICS OR SPECIALTIES:

1. Stochastic Differential Equations
2. Stochastic Simulation
3. Financial Mathematics
4. Mathematics Education
5. Statistics Education

### SCHOLARSHIP:

Development and Promotion of Science and Technology Talents Projects (DPST) scholarship

### TALKS EXPERIENCES:

1. Annual Pure and Applied Mathematics (APAM) Conference 2015, 4th-5th June 2015, Chulalongkorn University, Bangkok, Thailand
2. The 16th German Probability and Statistics Days, 7th-10th March 2023, University of Duisburg-Essen, Essen, Germany
3. The 43rd Conference on Stochastic Processes and their Applications, 4th-8th July 2023, University of Lisbon, Lisbon, Portugal