

YASINTORN WONGWOOTTISAROCH, ASA

PhD Candidate — Mathematics (Actuarial Science & Risk Analytics)

University of Illinois Urbana-Champaign

Urbana, IL • 217-898-1808 • yw60@illinois.edu

<https://asrm.illinois.edu/directory/profile/yw60>

Specialization: Stochastic Volatility Models • Climate Derivatives • Numerical Pricing Methods

SUMMARY

PhD candidate (ASA) specializing in climate-linked derivatives, stochastic volatility models, and numerical pricing methods. Developed fast and robust pricing frameworks (FFT and Monte Carlo) for weather and carbon derivatives, with applications to risk management and earnings stabilization under climate exposure. Experienced in translating quantitative models into practical financial insights for risk and pricing decisions.

TECHNICAL SKILLS

Modeling	Stochastic modeling, derivative pricing, asset valuation, volatility models, jump processes, time series modeling
Methods	Monte Carlo simulation, FFT methods, statistical inference
Programming	Python, R
Additional	Research supervision, technical communication

RESEARCH & INDUSTRY EXPERIENCE

Graduate Supervisor — University of Illinois Urbana-Champaign | 2025–Present

- Supervised graduate research projects on
 - Pricing weather derivatives under stochastic volatility frameworks (Spring 2025)
 - Pricing carbon future options under stochastic volatility frameworks (Fall 2025)
- Conducted industry research interview with CME Group specialist on weather derivatives markets
- Interviewed Ms. Krema, a weather derivatives specialist from CME Group, together with Professor Fadina, for the ASRM feature “Betting on Mother Nature.”
Read more: <https://asrm.illinois.edu/news/2026-04-03/betting-mother-nature> or <https://las.illinois.edu/ads/sp23>
- Selected graduate representative interviewed by Society of Actuaries for CAE program review

Lecturer — Chulalongkorn Business School | 2021–2022

- Designed and delivered instruction in mathematical modeling, Python programming, insurance principles, and risk management
- Delivered invited lectures for master’s students on risk-based capital modeling and actuarial policy valuation

Payroll & Volumetric Accounting Analyst — ExxonMobil | 2014–2016

- Prepared financial performance reports supporting management decision-making
- Collaborated across teams to improve accounting workflow efficiency

TEACHING EXPERIENCE

Teaching Assistant — University of Illinois Urbana-Champaign | 2023–Present

Led instruction-focused discussion sections for advanced quantitative courses (UEC Credit Courses):

- **ASRM 210 — Theory of Interest**
- **ASRM 442 — Statistics for Risk Modeling II**
- **ASRM 462/561 — Advanced Loss Models**

Strengthened student mastery of financial mathematics, statistical modeling, and actuarial risk theory through structured problem-solving sessions and technical explanations.

Graded and provided technical feedback for quantitative coursework including Differential Equations, Applied Linear Algebra, Foundation of Data Management, Investments and Financial Markets, and Risk Analytics and Decision Making.

EDUCATION

PhD Mathematics — Actuarial Science & Risk Analytics University of Illinois Urbana-Champaign GPA: 3.83 <i>Dissertation Theme: Pricing and Risk Management of Climate-Linked Derivatives for Earnings Stabilization</i> 1. Pricing of Temperature Derivative under Stochastic Volatility Jump Model 2. Carbon Futures Option Pricing Under Stochastic Volatility with Parameter Uncertainty 3. Earnings Stabilization under Carbon Exposure using Carbon Futures and Options	Expected 2027
M.S. Applied Mathematics University of Illinois Urbana-Champaign	2024
M.S. Life Actuarial Mathematics Chulalongkorn University GPA: 4.00 — Highest Ranked Graduate Independent Study Project: <i>Thai Mortality Modeling using Random Field Memory Model</i>	2019
B.Acc. Accounting (with Integrative Business Program) — First Class Honors Thammasat University GPA: 3.61	2013

CREDENTIALS & HONORS

- Associate of the Society of Actuaries (ASA), FSA Modules – Enterprise Risk Management, Financial Modeling and Scenario Modeling
- Graduate Teaching Certificate — University of Illinois Urbana-Champaign (2024)
<https://www.credential.net/de271b2e-e4b1-40db-bb88-1007b06f03ed#acc.elGihxcJ>
- CAS Student Central Summer Program (2025)
- Excellent Award (Highest Ranked Master’s Graduate) — Chulalongkorn University
- Merit Scholarship — Thai Life Assurance Association

LANGUAGES

Thai (native), English (fluent), German (B1), Spanish (basic), French (basic)