

## EDUCATION

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- **Ph.D. in Statistics** University of Waterloo  
• *Advisor: Dr. Samuel W.K. Wong* Sep 2019 – Apr 2024 (*expected*)
- **M.Math in Statistics** University of Waterloo  
• *Advisor: Dr. Gregory Rice* Sep 2018 – Aug 2019
- **H.B.Sc. in Statistics** University of Toronto  
• *Dean's list (3 times), graduate with high distinction* Sep 2015 – Apr 2018

## RESEARCH AREA

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Bayesian statistics and computation, likelihood-free inference, Monte Carlo algorithms

## PUBLICATIONS

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### Published

- **Hou, Z. & Wong, S. W.K.\* (2024)** Estimating Boltzmann Averages for Protein Structural Quantities Using Sequential Monte Carlo. *Statistica Sinica*.

### Submitted

- **Hou, Z. & Wong, S. W.K.\*** Particle Gibbs for Likelihood-Free Inference of State Space Models with Application to Stochastic Volatility. *submitted to Journal of Computational and Graphical Statistics*.

### In progress

- **Hou, Z. & Wong, S. W.K.** Time-Varying Parameters Modeling of the SEAPIR Model for COVID-19 Forecasting in Ontario.
- **Yeh, C.-K., Rice, G. & Hou, Z.** Bandwidth Selection for Estimation of the Long-Run Covariance of Functional Time Series via Semi-Parametric Methods.

## PRESENTATIONS

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- **2023 Statistical Society of Canada Annual Meeting** “Estimating Boltzmann Averages for Protein Structural Quantities Using Sequential Monte Carlo” - May 2023 in Ottawa, Canada.
- **The Statistics and Actuarial Science Student Seminar** “Sequential Monte Carlo for Applications in Structural Biology and Financial Time Series” - May 2022 in Waterloo, Canada.
- **The Statistics and Actuarial Science Research Presentation Day** “A Variant of Sequential Monte Carlo for Continuous State Spaces and Its Application in Protein Folding” - Mar 2022 in Waterloo, Canada.
- **FUSRP Midterm Presentations** “Optimal Hedging Strategies and Client Classification” - Aug 2018 in Toronto, Canada.

## EXPERIENCES

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- **Instructor of STAT 330 (Mathematical Statistics)** Jan 2023 – Apr 2023. Department of Statistics and Actuarial Science, University of Waterloo.
- **Teaching Assistant** Sep 2018 – Dec 2023. Department of Statistics and Actuarial Science, University of Waterloo.

- **Summer Research** Jul 2018 – Sep 2018. “Optimal Hedging Strategies and Client Classification”. The Fields Institute, University of Toronto.
- **Research Assistant** Feb 2018 - May 2018. Advisor: Dr. Hai Lu, China Centre, Rotman School of Management, University of Toronto.
- **Research Assistant** Feb 2017 - May 2018. Advisor: Dr. Claire Tsai, Behaviour Economics Laboratory, Rotman School of Management, University of Toronto.

## AWARDS & HONOURS

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University of Waterloo Graduate Scholarship	Mar 2020, Mar 2023
UW Special Graduate Student Entrance Award	Sep 2019
The Lawrence and Sharen Ho International Scholarship	Jul 2017

## MEMBERSHIP

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Statistical Society of Canada  
International Chinese Statistical Association

## REFERENCE

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1. **Samuel W.K. Wong** — Associate Professor  
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University of Waterloo  
PhD advisor
2. **Gregory Rice** — Associate Professor  
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University of Waterloo  
Master advisor