

Date Submitted: 2023-06-06 11:22:34

Confirmation Number: 1607902

Template: NSERC_Researcher

Professor Himchan Jeong

Correspondence language: English

Contact Information

The primary information is denoted by (*)

Address

Primary Affiliation (*)

8888 University Drive
Department of Statistics & Actuarial Science
Simon Fraser University
Burnaby British Columbia V5A 1S6
Canada

Telephone

Mobile (*) 1-236-9781502

Email

Work (*) himchan_jeong@sfu.ca



Protected when completed

Professor Himchan Jeong

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
Korean	Yes	Yes	Yes	Yes	Yes

Degrees

- 2020/8 Doctorate, Mathematics with Thesis in Actuarial Science, University of Connecticut
Supervisors: Emiliano Valdez, 2016/8 - 2020/8
- 2016/8 Master's Thesis, Statistics, Seoul National University
Supervisors: Myunghee Cho Paik, 2015/8 - 2016/8
- 2012/8 Bachelor's, Business Administration, Seoul National University
- 2012/8 Bachelor's, Mathematics, Seoul National University

Recognitions

- 2023/2 2022 Outstanding Reviewer Award Winner - 300
Multidisciplinary Digital Publishing Institute
Prize / Award
Acknowledgement of the time and energy dedicated by reviewers in checking the manuscripts submitted to Risks (Received in CHF)
- 2020/4 DeLuca Graduate Teaching Award - 350
University of Connecticut
Prize / Award
An award given to outstanding teaching assistants each year by UConn Math department. (Received in USD)
- 2020/3 Teaching excellence from the Provost's Office for Fall 2019
University of Connecticut
Honor
A letter from UConn Provost's office that congratulates and recognizes the achievement of UConn teaching assistants who excel in teaching on Fall 2019 teaching evaluations.
- 2019/7 Teaching excellence from the Provost's Office for Spring 2019
University of Connecticut
Honor
A letter from UConn Provost's office that congratulates and recognizes the achievement of UConn teaching assistants who excel in teaching on Spring 2019 teaching evaluations.

2018/12	<p>Risks 2019 Travel Awards - 800</p> <p>Risks</p> <p>Prize / Award</p> <p>Awards supported travel for selected one postdoctoral fellow and one PhD student to present their research, in poster or oral presentation formats, at a scientific conference in 2019. (Received in CHF)</p>
2018/7 - 2020/6	<p>SOA James C. Hickman Doctoral Stipend - 40,000</p> <p>Society of Actuaries</p> <p>Prize / Award</p> <p>A scholarship from the Society of Actuaries (SOA) given to competitive PhD students who are expected to pursue academic careers in the United States or Canada as a member of the SOA. (Received in USD)</p>

User Profile

Research Specialization Keywords: Actuarial Science, Predictive Analytics, Ratemaking and Reserving for P&C insurance

Employment

2020/8	<p>Assistant Professor</p> <p>Statistics and Actuarial Science, Simon Fraser University</p> <p>Full-time, Assistant Professor</p> <p>Tenure Status: Tenure Track</p>
2016/8 - 2020/8	<p>Graduate Assistant</p> <p>Mathematics, Storrs, University of Connecticut</p> <p>Full-time</p> <p>Tenure Status: Non Tenure Track</p> <p>Taught various courses as a discussion leader as well as an instructor / Provided research assistance in the project "Applying data Mining Techniques in Actuarial Science", supported by SOA Centers of Actuarial Excellence (CAE) Research Grant</p>
2012/7 - 2015/1	<p>Assistant Manager</p> <p>Long-term Maintenance Part, DB Insurance</p> <p>Helped maintaining and developing operating system for insurance product / Prepared monthly report of gross sales of insurance for regulatory authority / Provided educational material and seminar for employees about the system and regulation</p>

Research Funding History

Awarded [n=7]

2021/4 - 2026/3	Insurance ratemaking with consideration of dynamic credibility, Grant
Principal Investigator	<p>Funding Sources:</p> <p>Natural Sciences and Engineering Research Council of Canada (NSERC)</p> <p>Discovery Grants Program - Individual</p> <p>Total Funding - 102,500</p> <p>Portion of Funding Received - 66,500</p> <p>Funding Competitive?: Yes</p>
2022/8 - 2023/7	CANSSI Graduate Student Exchange Scholarships, Scholarship
Principal Applicant	<p>Funding Sources:</p> <p>Canadian Statistical Science Institute</p>

Graduate Student Exchange Scholarships
 Total Funding - 8,000
 Portion of Funding Received - 8,000
 Funding Competitive?: Yes
 Co-applicant : Yi Lu;
 Principal Knowledge User : Tianxing Yan

2022/8 - 2023/7
 Principal Investigator Integration of Traditional and Telematics data for Efficient Insurance Claims Prediction, Grant

Funding Sources:
 Canadian Institute of Actuaries (CIA)
 CIA's academic research program
 Total Funding - 13,500
 Portion of Funding Received - 13,500
 Funding Competitive?: Yes
 Co-applicant : Hashan Peiris

2022/5 - 2023/7
 Co-investigator Linear Classification Models for Risk Scoring, Grant

Funding Sources:
 Casualty Actuarial Society
 Individual Research Grant
 Total Funding - 20,000
 Portion of Funding Received - 10,000
 Funding Competitive?: Yes
 Principal Investigator : Bin Zou

2021/7 - 2022/6
 Principal Investigator Development of predictive model for car accidents via Telematics, Fellowship

Funding Sources:
 Daesan Shin Yong Ho Memorial Society
 Total Funding - 10,000
 Portion of Funding Received - 10,000
 Funding Competitive?: Yes
 Co-investigator : Banghee So

2022/4 - 2022/4
 Principal Investigator Support for globalized research, Fellowship

Funding Sources:
 Korea Risk Management Society
 Total Funding - 4,000
 Portion of Funding Received - 4,000
 Funding Competitive?: Yes

2021/7 - 2022/3
 Principal Investigator Risk Aggregation for Measuring Required Capital via Copula-based Internal Models under K-ICS, Fellowship

Funding Sources:
 Korean Insurance Academic Society
 Early Career Researcher Fellowship
 Total Funding - 3,000
 Portion of Funding Received - 3,000
 Funding Competitive?: Yes

Student/Postdoctoral Supervision

Master's Thesis [n=2]

2022/9 - 2024/4	Tianxing Yan (In Progress) , Simon Fraser University
Academic Advisor	Thesis/Project Title: Multi-peril risk modeling for catastrophic events Present Position: Master student, Simon Fraser University
2021/9 - 2023/4	Hashan Peiris (Completed) , Simon Fraser University
Academic Advisor	Thesis/Project Title: Integration of Traditional and Telematics Data for Efficient Insurance Claims Prediction Present Position: Doctoral student, Simon Fraser University

Doctorate [n=1]

2023/5 - 2027/8	Hashan Peiris (In Progress) , Simon Fraser University
Academic Advisor	Student Degree Expected Date: 2027/8 Thesis/Project Title: Prediction of auto insurance claim via data integration Present Position: Doctoral student, Simon Fraser University

Event Administration

2020/12 - 2022/1	Co-organizer, BIRS 2022 Conference - Emerging Insights in Insurance Statistics (22w5119 - Cancelled due to COVID-19), Conference, 2022/1 - 2022/1
2019/8 - 2020/3	Organizer, SIGMA Seminar, Seminar, 2019/8 - 2020/3

Committee Memberships

2022/3	Committee Member, SOA GI Research committee, Society of Actuaries Reviewing and evaluating the grant proposals for General Insurance researches supported by the SOA
2021/9	Committee Member, SOA Exam QFI QF committee, Society of Actuaries Writing and grading exam questions for an SOA exam, Quantitative Finance in FSA- Quantitative Finance and Investment track
2019/6	Committee Member, SOA Exam GI RR committee, Society of Actuaries Writing and grading exam questions for an SOA exam, Ratemaking and Reserving in FSA- General Insurance track

Other Memberships

2019/3	Fellow, Society of Actuaries
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Presentations

- (2023). Integration of Traditional and Telematics Data for Efficient Insurance Claims Predictions. Special Actuarial Research Seminar, East Lansing, United States of America
Main Audience: Researcher
Invited?: Yes, Keynote?: No

2. (2022). Multivariate claim count regression model with varying dispersion and dependence parameters. Research Seminar, School of Risk and Actuarial Studies, UNSW Business School, Sydney, Australia
Main Audience: Researcher
Invited?: Yes, Keynote?: No
3. (2022). Multivariate claim count regression model with varying dispersion and dependence parameters. Research Section Knowledge Sharing Session of IFoA, London, United Kingdom
Main Audience: Knowledge User
Invited?: No, Keynote?: No
4. (2021). Predictive compound risk models with dependence. Department of Statistics and Actuarial Science Seminar, Soongsil University, Seoul, Korea, South
Main Audience: Researcher
Invited?: Yes, Keynote?: No
5. (2021). Approximation of zero-inflated Poisson credibility premium via variational Bayes. 2021 Special Seminar of Korean Academy of Actuarial Science, Seoul, Korea, South
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes
6. (2021). A non-convex regularization approach for stable estimation of loss development factors. Department of Statistics Seminar, Seoul National University, Seoul, Korea, South
Main Audience: Researcher
Invited?: Yes, Keynote?: No
7. (2021). Approximation of zero-inflated Poisson credibility premium via variational Bayes. The 56th Actuarial Research Conference, Chicago, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
8. (2021). Equity Indexed Annuities with rebates. 24th International Congress on Insurance: Mathematics and Economics, Urbana, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
9. (2021). A Non-convex Regularization Approach for Stable Estimation of Loss Development Factors. SIAM FM21 Conference, Philadelphia, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
10. (2021). A non-convex regularization approach for stable estimation of loss development factors. Department of Statistics Seminar, Ewha Womans University, Seoul, Korea, South
Main Audience: Researcher
Invited?: Yes, Keynote?: No
11. (2020). Testing for random effects in compound risk models via Bregman divergence. 2020 Actuarial Research Conference, Lincoln, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
12. (2020). A regularization approach for stable estimation of loss development factors. Online International Conference in Actuarial science, data science and finance, Lyon, France
Main Audience: Researcher
Invited?: No, Keynote?: No
13. (2020). Applications of random effects in dependent compound risk models. London School of Economics (LSE) Actuarial Science Seminar Series, London, United Kingdom
Main Audience: Researcher
Invited?: Yes, Keynote?: No

14. (2019). Testing for random effects in compound risk models via Bregman divergence. Simon Conference for Young Researcher in Risk Management and Insurance, East Lansing, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
15. (2019). Premium optimization with policyholder loyalty. The 3rd International Congress on Actuarial Science and Quantitative Finance, Manizales, Colombia
Main Audience: Researcher
Invited?: No, Keynote?: No
16. (2019). Predictive compound random effects models for dependent frequency and severity. 2019 Spring Conference of Korean Statistical Society, Chuncheon, Korea, South
Main Audience: Researcher
Invited?: No, Keynote?: No
17. (2019). Premium optimization with policyholder loyalty. The 54th Actuarial Research Conference, Indianapolis, United States of America
Main Audience: Researcher
Invited?: No, Keynote?: No
18. (2019). Predictive compound random effects models for dependent frequency and severity. The 23rd International Congress on Insurance: Mathematics and Economics, Munich, Germany
Main Audience: Researcher
Invited?: No, Keynote?: No
19. (2018). Ratemaking application of Bayesian LASSO with conjugate hyperprior. The 53rd Actuarial Research Conference, London, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
20. (2018). Ratemaking application of Bayesian LASSO with conjugate hyperprior. 2018 Spring Conference of Korean Statistical Society, Busan, Korea, South
Main Audience: Researcher
Invited?: No, Keynote?: No
21. (2017). A predictive random effects model of dependent claims frequency and severity. Advances in Predictive Analytics (APA) Conference, Waterloo, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

Publications

Journal Articles

1. Tsz Chai Fung, Himchan Jeong, George Tzougas. (2023). Soft splicing model: Bridging the gap between composite model and finite mixture model. Scandinavian Actuarial Journal.
Revision Requested
Refereed?: No, Open Access?: No
2. Hashan Peiris, Himchan Jeong, Jae-Kwang Kim. (2023). Integration of Traditional and Telematics data for Efficient Insurance Claims Prediction. ASTIN Bulletin: The Journal of the IAA.
Submitted
Refereed?: No, Open Access?: No

3. Himchan Jeong, George Tzougas, Tsz Chai Fung. (2023). Multivariate claim count regression model with varying dispersion and dependence parameters. *Journal of the Royal Statistical Society: Series A*. 186(1): 61–83.
Published
Refereed?: Yes, Open Access?: No
4. Gee Y. Lee, Himchan Jeong. (2023). Nonparametric intercept regularization for insurance claim frequency regression models. *Annals of Actuarial Science*.
Revision Requested
Refereed?: No
5. Himchan Jeong. (2023). Tweedie multivariate semi-parametric credibility. *Insurance: Mathematics and Economics*.
Submitted
Refereed?: No, Open Access?: No
6. Jaeyoun Ahn, Himchan Jeong, Yang Lu. (2023). A simple Bayesian state-space model for the collective risk model. *Scandinavian Actuarial Journal*. 2023: 509-529.
Published
Refereed?: Yes, Open Access?: No
7. Himchan Jeong and Dipak K. Dey. (2022). Multi-peril frequency credibility premium via shared random effects. *Variance*.
Accepted
Refereed?: Yes, Open Access?: Yes
8. Minwoo Kim, Himchan Jeong and Dipak Dey. (2022). Approximation of Zero-Inflated Poisson Credibility Premium via Variational Bayes Approach. *Risks*. 10(3): 54.
Published
Refereed?: Yes, Open Access?: Yes
9. Himchan Jeong. (2022). Risk Aggregation for Measuring Required Capital via Copula-based Internal Models under K-ICS. *Korean Journal of Insurance*. 129: 51-77.
Published
Refereed?: Yes, Open Access?: Yes
10. Banghee So, Himchan Jeong. (2022). Simulation Engine for Adaptive Telematics data. *Variance*.
Accepted
Refereed?: Yes, Open Access?: Yes
11. Tianxing Yan, Himchan Jeong. (2022). Posterior ratemaking of compound loss using longitudinal data with EM algorithm. *The Journal of Risk Management*. 33(1): 1-34.
Published
Refereed?: Yes, Open Access?: Yes
12. Himchan Jeong. (2022). Dimension reduction techniques for summarized telematics data. *The Journal of Risk Management*. 33(4): 1-25.
Published
Refereed?: Yes, Open Access?: Yes
13. Hangsuck Lee, Himchan Jeong, Minha Lee. (2022). Multi-step Double Barrier Options. *Finance Research Letters*. 47(A)
Published
Refereed?: Yes, Open Access?: No
14. George Tzougas and Himchan Jeong. (2021). EM estimation for the Exponential Generalized Inverse Gaussian Regression model with varying dispersion and shape for modelling the aggregate claim amount. *Risks*. 9(1): 1-19.
Published
Refereed?: Yes, Open Access?: Yes

15. Himchan Jeong, Jaeyoun Ahn, Sojung Park, Emiliano A. Valdez. (2021). Generalized linear mixed models (GLMMs) for dependent compound risk models. *Variance*. 14(1)
Published
Refereed?: Yes, Open Access?: Yes
16. Himchan Jeong, Hyunwoong Chang, and Emiliano A. Valdez. (2021). A non-convex regularization approach for stable estimation of loss development factors. *Scandinavian Actuarial Journal*. 2021(9): 779-803.
Published
Refereed?: Yes
17. Rosy Oh, Himchan Jeong, Jaeyoun Ahn, Emiliano A. Valdez. (2021). A multi-year microlevel collective risk model. *Insurance: Mathematics and Economics*. 100: 309-328.
Published
Refereed?: Yes, Open Access?: No
18. Jaeyoun Ahn, Himchan Jeong, Yang Lu. (2021). On the ordering of credibility factors. *Insurance: Mathematics and Economics*. 101: 626-638.
Published
Refereed?: Yes, Open Access?: No
19. Himchan Jeong and Emiliano A. Valdez. (2020). Bayesian credibility premium with GB2 copulas. *Dependence Modeling*. 8(1): 157-171.
Published
Refereed?: Yes, Open Access?: Yes
20. Elizabeth D. Schifano, Himchan Jeong, Ved Deshpande and Dipak K. Dey. (2020). Fully and empirical Bayes approaches to estimating copula-based models for bivariate mixed outcomes using Hamiltonian Monte Carlo. *TEST*.
Published
Refereed?: Yes, Open Access?: No
21. Himchan Jeong and Emiliano A. Valdez. (2020). Predictive compound risk models with dependence. *Insurance: Mathematics and Economics*. 94: 182-195.
Published
Refereed?: Yes, Open Access?: No
22. Himchan Jeong. (2020). Testing for random effects in compound risk models via Bregman divergence. *ASTIN Bulletin: The Journal of the IAA*. 50(3): 777-798.
Published
Refereed?: Yes, Open Access?: No
23. Himchan Jeong and Dipak K. Dey. (2020). Application of vine copula for multi-line insurance reserving. *Risks*. 8(4)
Published
Refereed?: Yes, Open Access?: Yes
24. Himchan Jeong, Guojun Gan, Emiliano A. Valdez. (2018). Association rules for understanding policyholder lapse. *Risks*. 6(3)
Published
Refereed?: Yes, Open Access?: Yes

Conference Publications

1. Himchan Jeong, Bin Zou. (2022). A Dynamic Credibility Model Using Hawkes Processes. *Proceedings of Winter Simulation Conference 2022*. Winter Simulation Conference 2022, (3241-3250)
Paper
Published
Refereed?: Yes, Invited?: No