

**NAME:** Leilei Zeng



**PHOTO:**

**PRESENT POSITIONS:**

April 2011- Present      **Associate Professor**  
Department of Statistics and Actuarial Science  
University of Waterloo, Canada

**FORMER POSITIONS:**

July 2006 – April 2011      **Assistant Professor**  
Department of Statistics and Actuarial Science  
Joint Appointment in Faculty of Health Sciences,  
Simon Fraser University, Canada

**DEGREES:**

Sep. 2000 – April 2005      **Ph.D., Biostatistics**, University of Waterloo, Canada  
Sep. 1999 – Sep. 2000      **M.Math, Biostatistics**, University of Waterloo, Canada  
Sep. 1994 – Sep. 1998      **B.Sc., Statistics**, Nankai University, China

**FIELDS OF MAJOR STATISTICAL ACTIVITIES:**

My research interests lie primarily in the development and application of statistical methodologies for public health and medical research. Specific areas of interest include methods for event history and longitudinal data analysis, multistate models, marginal methods based on generalized estimating equations, incomplete observation and missing data problem, design of clinical and epidemiological studies, and model misspecification. My collaborative research related to health and medical research includes psoriasis and psoriatic arthritis, dementia and Alzheimer disease, stress and reproduction in women, and smoking prevention.

## SELECTED PUBLICATIONS:

- Shi Y, **Zeng L**, Thompson ME and Tyas S. "Augmented likelihood for incorporating auxiliary information for left truncated data", *Lifetime Data Analysis*, revision invited, March 2020.
- Shu J, Cook RJ and **Zeng L**. "Mitigating bias from intermittent measurement of time-dependent covariates in failure time analysis", *Statistics in Medicine*, published online, March 3, 2020
- **Zeng L**, Cook RJ and Lee JY. "Multistate analysis from cross-sectional and auxiliary samples", *Statistics in Medicine*, 39(4) 387-408, 2020.
- Moon N, **Zeng L**, and Cook RJ. "Cohort Study Design for Illness-Death Processes under Intermittent Observation", *Biostatistics and Epidemiology*, 3(1): 178-200, December 2019.
- Barha CK, Salvante KG, Jones MJ, Farré P, Blais J, Kobor MS, **Zeng L**, Emberly E, Nepomnaschy PA. "Early post-conception maternal cortisol, children's HPAA activity and DNA methylation profiles", *Journal of Developmental Origins of Health and Disease*, Published online Nov. 15, 2018.
- **Zeng L**, Cook RJ, Lee K-A. "Design of cancer trials based on progression-free survival with intermittent assessment", *Statistics in Medicine*, 37(12): 1947-1959, 2018.
- Moon NC, **Zeng L**, Cook RJ. "Tracing studies in cohorts with attrition: selection models for efficient sampling", *Statistics in Medicine*, 37(1): 2354-2366, 2018.
- **Zeng L**, Cook RJ, Wen L, Boruvka A. "Bias in Progression-free Survival Analysis due to Intermittent Assessment of Progression", *Statistics in Medicine*, 34(24):3181-3193, 2015.
- Nepomnaschy PA, Salvante KG, **Zeng L**, Pyles C, Ma H, Blais JC, Wen L, Barha CK. "Variation in maternal cortisol profiles across the peri-conceptual period: A longitudinal description and evaluation of potential functions", *Human Reproduction*, 30(6): 1460-1472, June 2015.
- Takaro TK, Scott JA, Allen RW, Anand SS, Becker AB, Befus AD, Brauer M, Duncan J, Lefebvre DL, Lou W, Mandhane PJ, McLean K, Miller G, Sbihi H, Shu H, Subbarao P, Turvey SE, Wheeler AJ, **Zeng L**, Sears MR, Brook JR. "The Canadian Healthy Infant Longitudinal Development (CHILD) birth cohort study: assessment of environmental exposures", *Journal of Exposure Science and Environmental Epidemiology*, 25:580-592, March 2015.
- Sarkar PL, **Zeng L**, Chen Y, Salvante KG, Nepomnaschy PA. "A Longitudinal Evaluation of the Relationship between First Morning Urinary and Salivary Cortisol", *American Journal of Human Biology*, 25(3): 351-358, May-June 2013.
- Galway LP, Corbett KK and **Zeng L**. "Where are the NGOs and Why? The Distribution of Health and Development NGOs in Bolivia", *Globalization and Health*, 8-38, November 2012.
- Nepomnaschy PA, Lee T, **Zeng L** and Dean CB. "Who is stressed? Comparing Cortisol Levels Between Individuals". *American Journal of Human Biology*, 24(4): 515-525, Jul-Aug 2012.
- Lu Y and **Zeng L**. "A Non-homogeneous Poisson Hidden Markov Model for Claim Counts", *ASTIN Bulletin - The Journal of the International Actuarial Association*, 42(1), 181-202, May 2011.
- Lee T, **Zeng L**, Thompson DJS and Dean CB. "Comparison of Imputation Methods for Interval Censored Time-to-event Data in Joint Modeling of Tree Growth and Mortality", *The Canadian Journal of Statistics*, 39(3), 438-457, July 2011.
- Yi GY, **Zeng L** and Cook RJ. "A Robust Pairwise Likelihood Method for Incomplete Longitudinal Binary Data Arising in Clusters", *The Canadian Journal of Statistics*, 39(1), 34-51, February 2011.
- Sehi, M., Flanagan, JG, **Zeng, L**, Cook, RJ, Trope, GE. "The Association Between Diurnal Variation of Optic Nerve Head Topography, Intraocular Pressure and Ocular Perfusion Pressure in Untreated Primary Open Angle Glaucoma", *Journal of Glaucoma*, 20(1), 44-50, January 2011.
- **Zeng L**, Cook RJ and Warkentin TE. "Regression Analysis with a Misclassified Covariate from a Current Status Observation Scheme", *Biometrics*, 66:415-425, June 2010.

- Tomkinson J, Palmer A, Phung C, Joffres M, **Zeng L**, Lima V, Guyatt MD, Mills EJ. “Does the Ratification of Human Rights Treaties Impact Population health?”, *The Lancet*, 373(9679), 1987-1992, June 2009.
- **Zeng L** and Cook RJ. “A Multivariate Random Effect Model for Clustered Interval Censored Time to Joint Damage in Psoriatic Arthritis”, *JP Journal of Biostatistics*, 2(3), 193-215, Oct. 2008.
- Cook RJ, **Zeng L** and Lee K. “A Multistate Model for Bivariate Interval Censored Failure Time Data”, *Biometrics*, 64: 1100-1109, Dec. 2008.
- **Zeng L** and Cook RJ. “Transition Models for Multivariate Longitudinal Binary Data”, *Journal of the American Statistical Association*, 102(477), 211-223, March 2007.
- Sehi M, Flanagan JG, **Zeng L**, Cook RJ, Trope GE. “Anterior optic nerve capillary blood flow response to diurnal variation of mean ocular perfusion pressure in untreated early primary open angle glaucoma”, *Investigative Ophthalmology and Visual Science*, 46:4581-4587, December 2005.
- Sehi M, Flanagan JG, **Zeng L**, Cook RJ, Trope GE. “Relative Change in Diurnal Mean Ocular Perfusion Pressure; A Risk Factor for the Diagnosis of Primary Open Angle Glaucoma”, *Investigative Ophthalmology and Visual Science*, 46: 561-567, February 2005.
- Cook RJ, **Zeng L** and Yi GY. “Marginal Analysis of Incomplete Longitudinal Binary Data: A Cautionary Note on LOCF Imputation”, *Biometrics*, 60: 820-828, September 2004.

### **ICSA ACTIVITIES:**

- Secretary/Treasurer, ICSA-Canada Chapter, 2018-2023
- Member, ICSA-Canada Chapter, 2013-present
- Member, ICSA, 2013-present
- Invited speaker: ICSA-Canada Chapter Symposium 2013, 2015; ICSA Symposium 2016; ICSA-China Conference 2018, 2019.

### **PROFESSIONAL COMMITTEES:**

- Statistical Society of Canada (SSC), Ontario Representative, 2017-2022
- ICSA-Canada Chapter, Secretary/Treasurer, 2018-2023
- Associate Chair-Undergraduate Studies, Department of Statistics and Actuarial Science, University of Waterloo, 2013-2015
- SSC representative on ASA COWIS, 2010-2012
- Statistical Society of Canada, Representative on the Caucus for Women in Statistics, 2009-2013
- Statistical Society of Canada, Committee on Women in Statistics, 2008-2013

### **HONORS AND AWARDS:**

- Graham Trust Chair in Health Statistics, University of Waterloo, 2011-2016
- Natural Sciences and Engineering Research Council of Canada – University Faculty Award, 2006-2012
- GlaxoSmithKline Pharmaceutical Industry Scholarship, 2004
- Sprott Scholarship for best PhD thesis proposal, University of Waterloo, 2003

**STATEMENT:**

I am honored to be nominated for the ICSA Board which I view as a way to draw on my administrative abilities and leadership roles over the last ten years. I was the Associate Chair of Undergraduate Studies of Department of Statistics and Actuarial Science at the University of Waterloo from 2013 to 2015. I've given many years of service to the Committee on Women in Statistics of the Statistics Society of Canada. I am a member of the Board of Directors of the Statistics Society of Canada as the Ontario Representative since 2017. I am also the current Secretary/Treasurer of ICSA-Canada Chapter. I am looking forward to the opportunity to serve on the ICSA Board and contribute to the continued growth and success of this remarkable organization.