Guowen Huang

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Education	**University of Glasgow, Scotland, UK**	Sep 2013 – Dec 2016
	PhD in Environmental Statistics in School of Mathematics and Statistics	
	Supervisors: Duncan Lee; Marian Scott.	
	Thesis: Quantification of Air Quality in Space and Time and its Effects on Health.	
	Tianjin University, Tianjin, China	Sep 2010 – Mar 2013
	Master in Industrial Engineering in College of Management and Economics	
	Graduated with College Honors.	
	Nankai University, Tianjin, China	Sep 2006 – Jul 2010
	Bachelor in Physics in School of Physics	
	Graduated with College Honors.	

Work Experience	Associate Professor, Shantou University, China	Jan 2021 – present
	[1]Bayesian hierarchical modelling, air pollution health effects.	
	Postdoc, St. Michael's Hospital, & University of Toronto, Canada	Aug 2018 – Aug 2020
	[1] Extended Study on Air Pollution Risk Model for Three Pollutants.	
	Postdoc, National Tsing Hua University, Taiwan	Dec 2016 – Jul 2018
	[1] Spatio-temporal modelling of $PM_{2.5}$ in Taiwan.	
	[2] Spatial Signal Detection Based on Small Area Aggregated Data.	

Teaching Experience	Shantou University	Jan 2021 – present
	Course instructor of: Bayesian Statistics; Sampling Techniques; Multivariate Analysis; Mathematical Statistics; Spatial Statistics; Linear Regression	
	University of Glasgow	Mar 2014 – Jul 2016
	Graduate Teaching Assistant in Student Learning Service	
	University of Toronto	May 2019 – Jul 2019
	Course instructor of STA302 (Linear regression)	

Journal Reviewer	The Lancet Planetary Health; Biostatistics; Environmetrics; Biometrical Journal; Journal of the Royal Statistical Society: Series A (Statistics in Society); Journal of the Royal Statistical Society: Series C (Applied Statistics); Spatial Science; International journal of epidemiology; Atmospheric Environment; Environmental pollution; Spatial and Spatio-temporal Epidemiology; Journal of Environmental Informatics; Epidemiologic Methods.
Languages	English, Chinese
Skills	Proficient with: R (daily used); Familiar with: C++, SPSS, AWS.
Hobbies	Badminton, Skiing, Billiards, Table tennis, Driving

Papers

[1] Guowen Huang*, Lee D. and Scott M. An integrated Bayesian model for estimating the long-term health effects of air pollution by fusing modelled and measured pollution data: A case study of nitrogen dioxide concentrations in Scotland. Spatial and Spatio-temporal Epidemiology. 2015;14-15: 63-74.

[2] Guowen Huang*, Lee D. and Scott M. Multivariate space-time modelling of multiple air pollutants and their health effects accounting for exposure uncertainty. Statistics in Medicine. 2017; 37: 1134-1148.

[3] Guowen Huang; Ling-Jyh Chen; Wen-Han Hwang; ShengLi Tzeng; Hsin-Cheng Huang. Real-time PM2.5 mapping and anomaly detection from AirBoxes in Taiwan. Environmetrics. 2018;1-15.

[4] Hsin-Cheng Huang and Noel Cressie and Andrew Zammit-Mangion and Guowen Huang. False Discovery Rates to Detect Signals from Incomplete Spatially Aggregated Data. Journal of Computational and Graphical Statistics. 2021, 30(4):1081-1094.

[5] Guowen Huang*, Patrick Brown. Population-weighted exposure to air pollution and COVID-19 incidence in Germany Spatial Statistics. 2021, 41(100480): 1-12.

[6] Guowen Huang; Patrick E. Brown; Sze Hang Fu; Hwashin Hyun Shin. Daily mortality/morbidity and air quality: Using multivariate time series with seasonally varying covariances. Journal of the Royal Statistical Society Series C: Applied Statistics. 2022, 71(1): 148-174.

[7] Guowen Huang*, Marta Blangiardo, Patrick E. Brown and Monica Pirani. Long-term exposure to air pollution and COVID-19 incidence: A multi-country study. Spatial and Spatio-temporal Epidemiology. 2021, 39(100443):1-11.

[8] Xuyang Tang, ..., Guowen Huang and et al. Assessment of SARS-CoV-2 Seropositivity During the First and Second Viral Waves in 2020 and 2021 Among Canadian Adults. JAMA Netw Open. 2022;5(2):e2146798.

[9] Xuyang Tang, ..., Guowen Huang and et al. COVID Symptoms, Seroprevalence, and Mortality During the First Wave of SARS-CoV-2 in Canada. Social Science Research Network. 2021.

[10] Patrick E. Brown, Yurie Izawa, Kalpana Balakrishnan, Sze Hang Fu, Joy Chakma, Geetha Menon, Rajesh Dikshit, R.S. Dhaliwal, Peter S. Rodriguez, Guowen Huang, Rehana Begum, Howard Hu, George D'Souza, Randeep Guleria, and Prabhat Jha. Mortality from Particulate Matter $2 \cdot 5$ in India: National Prospective Proportional Mortality Study. Environmental Health Perspectives. 2022; 130:9 CID: 097004

[11] Guowen Huang*; Feng Liu. Urban/rural differences in air pollution impacts on deaths in Scotland: A comparison study on different pollution data sources. Spatial Statistics. 2022; 52: 100712

[12] Guowen Huang; Patrick Brown; Hwashin Hyun Shin. Multi-pollutant case-crossover models of all-cause and cause-specific mortality and hospital admissions by age group in 47 Canadian cities. Environmental research. 2023; 225: 115598.

[13] Guowen Huang*; Feng Liu. A comparison of exposure uncertainty propagation models used in epidemiological studies. Journal of the Royal Statistical Society Series A: Statistics in Society. 2023; 00: 1-16.