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] 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 2·5 in India: National Prospective Proportional Mortality Study. *Environmental Health Perspectives*. 2022; 130:9 CID: 097004

[10] 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

[11] 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.

[12] 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.