Patrick Brown

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Current employment

- Associate Professor, Department of Statistical Sciences, University of Toronto. 2018-

- Centre for Global Health Research, Li Ka Shing Knowledge Institute, St. Michael's Hospital. 2017-

Degrees:

PhD in Statistics, Lancaster University, UK. Part-time and full-time study from August 1997 to January 2003.

MSc in Statistics, London School of Economics, UK. October 1996 - June 1997.

BA (Hons) in Economics and Statistics, Queen's University, Canada. September 1992 - May 1996.

Selected Research Awards

NSERC Discovery Grant Latent-Gaussian Spatio-temporal models for complex problems, 2017-2022 $120k Patrick E. Brown -

NSERC Discovery Grant Inference on Spatio-Temporal Log-Gaussian Cox Processes for Spatially Aggregated Disease Incidence Data, 2012-2017 $60k Patrick E. Brown

Selected recent publications

1 R Entezari, PE Brown, and JS Rosenthal. 2020.
   "Bayesian spatial analysis of hardwood tree counts in forests via MCMC".
   Environmetrics to appear, e2608.

2 M Mahsin, R Deardon, and PE Brown. 2020.
   "Geographically-dependent individual-level models for infectious diseases transmission".
   Biostatistics. to appear.

3 EH Yoo, PE Brown, and Y Eum. 2018.
   "Ambient air quality and spatio-temporal patterns of cardiovascular emergency department visits".
   International Journal of Health Geographics 17.18, pp. 1–16.

4 JSW Lee, P Nguyen, PE Brown, J Stafford, and N Saint-Jacques. 2017.
   "A local-EM algorithm for spatio-temporal disease mapping with aggregated data".
   Spatial Statistics 21, pp. 75–95.

5 PE Brown. 2016.
   "Maps, Coordinate Reference Systems and Visualising Geographic Data with mapmisc".
   R-journal 8.1, pp. 64–91.

6 PE Brown, H Jiang, S Ezzat, and AM Sawka. 2016.
   "A detailed spatial analysis on contrasting cancer incidence patterns in thyroid and lung
   cancer in Toronto women".
   BMC Public Health 16.1, p. 950.

7 PE Brown. 2015.
   "Model-based Geostatistics the easy way".
   Journal of Statistical Software 63.

Professional Service

Statistical Society of Canada, 2007-

- Treasurer 2019-

- Biostatistics President (elect/current/past) 2017-2020

- Biostatistics Treasurer 2009-2015

- Local organizer for 2014 Annual Meeting

- Finance procedures committee 2017-2019

- Finance committee 2012-2016

Supervision

PhD

- Alex Stringer, PhD in Statistics DoSS, Sept 2018-: Integrated nested variational inference for non-linear latent-Gaussian models. Co-supervision with Jamie Stafford

- Ruoyong Xu, PhD in Statistics DoSS, Sept 2018-: Highly parallelized spatial computations on GPU's

- Kamal Rai, PhD in Statistics DoSS, Sept 2017- : MCMC methods for complex spatial models (geometric anisotropy, conditional likelihoods) are being developed.

Postdoctoral

- Guowen Huang, 2018-: Short-term impacts of air quality on mortality and morbidity in Canada.

- Luc Villandré, 2018-: Multiresolution approximations for spatial modeling of satellite data.