



McGill

Department of  
Epidemiology, Biostatistics  
and Occupational Health

Biostatistics Seminars  
Winter 2020



**Dave Campbell, PhD**

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Carleton University

**Overcoming Statistical Challenges from  
Multimodal Likelihoods**

Wednesday, February 19, 2020

3:30 pm – 4:30 pm – Purvis Hall, 1020 Pine Ave. West, Room 24

All are Welcome

**Abstract:**

Multimodal likelihoods arise when parameters in some parts of the likelihood space at least partially fit the data, but that there exists a direction in which moving parameters degrades the likelihood before eventually rising again. In differential equation models, this might be because there are several ways in which the model dynamics can fit parts of the data. In mixture models, multimodality might be caused by the models ability to switch model labels. The main focus of this talk is on methods for overcoming multi-modality by incorporating model structure into the algorithm. The talk ends with multimodality challenges in inference for modern data types including covariate effects from unstructured text and over-parametrization in computer vision.

**Bio:**

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