



Statistical Sciences  
UNIVERSITY OF TORONTO

# SEMINAR

April 28<sup>th</sup>, 2016 at 3:30pm

*\*Refreshments at 3:10pm*

Sidney Smith Hall, Room 1073

Speaker: Yves Tillé, University of Neuchatel

Host: Nancy Reid

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## **How to choose the best sampling design?**

In survey sampling, the selection of a sample is an intricate problem that requires a good knowledge of the population of interest. The sample must yield the maximum information on the population. We show the interest of modelling the population and next to apply three basic principles: the principle of randomization, the principle of restriction and the principle of overrepresentation. The appropriate sampling design can then be derived from the model and from these principles. We present a list of new and efficient sampling designs by specifying their corresponding model. The emphasis is placed on the new spatial sampling methods and their related models. A simulation shows the interest of the different methods.