This Focus Program aims to bring together researchers in data science and optimization, both theoretical and applied, in an effort to bridge the fields and stimulate cross-disciplinary interaction and collaborative work.

Data science and optimization are increasingly intertwined, as both focus on developing computational and methodological approaches to tackling big, and otherwise complex, datasets. Optimization is mostly concerned with accuracy, computational efficiency, and robustness while data science focuses on achieving effective results on real datasets. Although some data science approaches involve implicit optimization of some objective function, there remains a dearth of work that brings advanced optimization techniques to bear on data science problems. Participants will be able to discuss and collaborate on a wide variety of mathematical problems to develop both novel formulations and efficient computational approaches. The strengths and limitations of currently used advanced software will be investigated to search for new ideas and extensions.

**Workshops and Conferences**

**Winter School on Computational Data Science and Optimization:** November 4 - 8, 2019

**Workshop on Data Science:** November 11 - 15, 2019

**Conference on Data Science and Optimization:** November 18 - 22, 2019

**Workshop on Optimization:** November 25 - 29, 2019

*NOTE: Register separately for each event you plan to attend. Registering for one event does not enroll you for the entire Focus Program.*

Register at https://www.eventbrite.ca/e/focus-program-on-data-science-and-optimization-92002-tickets-73142777015