# Tier 2 Canada Research Chair in The Analysis of Complex Data (Assistant or Associate Professor)

**Departments of Computer Science, Mathematics and Statistics**
**Faculty of Science**
**University of Manitoba**
**Winnipeg, Manitoba, Canada**
**Position #20697**

The University of Manitoba invites applications or nominations for a Tier 2 Canada Research Chair (CRC) in the Analysis of Complex Data. The Government of Canada has established the CRC program to enable Canadian universities to foster world-class research excellence. The proposed CRC aligns with the University's strategic plan (**http://umanitoba.ca/research/media/Strategic_Research_Plan.pdf** ) that identifies *Understanding and Communicating Information* as a crosscutting strategic theme.

Tier 2 CRCs are intended for exceptional emerging scholars. Candidates must have less than 10 years of experience as active researchers in their field of study at the time of nomination. Candidates who are more than 10 years from having earned their highest degree and who have had career disruptions, due to maternity, parental or extended sick leaves, may have their eligibility for a Tier 2 Chair assessed through the program's Tier 2 justification process. Please consult the Canada Research Chair's website (**http://www.chairs-chaires.gc.ca/**) for full program information, including details on eligibility criteria and the justification process.

The analysis of complex data underlies some of the most fundamental and practical problems currently faced by society and sits at the junction of three core disciplines - mathematics, statistics and computer science. The desired focus of this position is the development of techniques that can be applied to, and adapted to a range of problems in multiple disciplines. The successful candidate will have a track record of high quality scholarly research leading to peer assessed publications; will either have, or demonstrate the potential to establish, an independent, innovative, scholarly, externally fundable research program; will have demonstrated strength in or strong potential for outstanding teaching contributions; and will exhibit evidence of the ability to work in a collaborative environment. Duties will include undergraduate teaching, graduate teaching and supervision, research, including the establishment of an externally funded research program, and service-related activities.

To enhance our faculty and create role models for a diverse population of students, we particularly invite applications from those who can support and enhance our diversity, including women, Indigenous peoples, other visible minorities, and those committed to a diverse environment.

The University of Manitoba's Departments of Mathematics, Statistics, and Computer Science, housed within the Faculty of Science (**http://umanitoba.ca/faculties/science/**), collectively comprise more than 70 faculty members. The Departments have active graduate teaching and research programs, with over 120 MSc and PhD students. Research strengths include approximation theory, machine learning, advanced modelling, sparse methods and visualization as well as work in a number of bio-focused areas that require new methods of complex data analysis. Emerging areas of interest include high dimensional data analysis, spatial-temporal modelling, and the mining of massive data sets. Opportunities for collaborative research exist within the three departments as well as extending across the faculty and the university. Notably, the University of Manitoba has a strong program in evidence-based medicine with timely access to a diversity of complex healthcare databases used for both clinical and epidemiologic studies that could benefit from collaboration with the chair. In addition, the university is also well connected to relevant external organizations including the Pacific Institute for the Mathematical Sciences (PIMS;

**https://www.pims.math.ca/** and a Compute Canada/Westgrid node (**https://www.computecanada.ca/**) (**https://www.westgrid.ca/**).

Winnipeg is the largest city in the Province of Manitoba. The city has a rich cultural environment, including symphony, opera, dance, theatre, sports and ethnic festivals, combining the amenities of urban life with easy access to the countryside and to northern lakes and forests for ample outdoor recreation opportunities in all seasons. A wide array of public and private schools is available in the Winnipeg area. Learn more about Winnipeg at **http://www.winnipeg.ca/interhom/**

The University of Manitoba is strongly committed to equity and diversity within its community and especially welcomes applications from women, members of racialized communities, Indigenous persons, persons with disabilities, persons of all sexual orientations and genders, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

Applications including a curriculum vitae, a summary of research interests, a description of a five-year research plan, and contact information for three references should be sent to: **sciadr@umanitoba.ca** (PDF files preferred). Please ensure to specify **Position #20697** in the application.

For further information contact the Search Committee Chair at **Ivan.Oresnik@umanitoba.ca**. Review of applications will begin on **October 31, 2016** and will continue until the position is filled.

Application materials, including letters of reference, will be handled in accordance with the *Freedom of Information and Protection of Privacy Act* (Manitoba). Please note that curricula vitae may be provided to participating members of the search process.  All Chairs are subject to review and final approval by the CRC Secretariat.