



Member Profile

Dr. Roman Makarov, Affiliated Member

Dr. Roman Makarov, affiliated member of the Institute, advances research within one priority research theme of the Institute: Mathematical Models in Finance (Tecton 7).

Dr. Makarov joined the Institute in 2014. He came to Wilfrid Laurier University in 2003 where he is now an associate professor in the Department of Mathematics. Before joining Laurier, he was an assistant professor of Mathematics at the Siberian State University of Telecommunications and Informatics and a senior research fellow at the Laboratory of Monte Carlo Methods at the Institute of Computational Mathematics and Mathematical Geophysics in Novosibirsk, Russia.

In 2000, Makarov received his PhD in Computational Mathematics from the Russian Academy of Sciences and in 1997 he was granted his MSc in Mathematics from Novosibirsk State University. Makarov has been given two Natural Sciences and Engineering Research Council discovery grants and was given the Award in the name of Academician Mikhail A. Lavrentjev for young researchers in 2001 in Russia. In 2014 he published a book entitled Financial Mathematics: A Comprehensive Treatment co-authored with Dr. J Campolieti.

Makarov's main research is in the development of financial models that can be used for asset pricing and credit risk modelling. He also has a focus on stochastic and numerical modelling methods for pricing and hedging financial securities. Some examples include construction of efficient stochastic simulation methods for diffusions with and without jumps and application of parallel computing to pricing derivatives.



Makarov has supervised a total of 10 master's students along the topic of financial mathematics and Monte Carlo methods. He has also supervised 6 undergraduate students. Dr. Makarov welcomes inquiries from potential students.