



Pacific Institute *for the*  
Mathematical Sciences

# PIMS – UVic Distinguished Lecture

Omer Angel

University of British Columbia

Monday, March 26, 2018

3:30 pm

(pre-lecture refreshments @ 2:45 pm DTB A514)

MacLaurin Building, room D110

University of Victoria

## Mallows Permutations, Stable Matchings and Scaling Limits

We present a new representation of the Mallows permutations to stable matchings on a random bi-partite graph. We also derive new results for the scaling limits of the cycles in the Mallows permutations in terms of the Ethier-Kurtz diffusion.

Joint with Ander Holroyd, Tom Hutchcroft and Avi Levy.

Omer Angel has been a prominent figure in the forefront of research in probability theory over the past two decades. He obtained his PhD under the supervision of Itai Benjamini and Oded Schramm from the Weizmann Institute. Subsequently he was a postdoc in Orsay, Paris and then in UBC. Then he spent two years in University of Toronto as an assistant professor before returning to UBC where he currently holds a full professor position.



Prof. Angel has made remarkable contributions in the field of discrete probability theory, with numerous significant results. Perhaps one of the most notable contribution is the construction of "uniform infinite planar triangulation", a random triangulation of the full plane which has been used as a discrete model for two dimensional quantum gravity. He introduced "the peeling process", a powerful tool which was motivated from the idea of Watabiki to analyze 2 dimensional random geometry by "peeling" it like peeling an apple. This is usually referred to as "Angel's peeling process" in the community and has been instrumental in numerous developments in the subject in recent times. Another significant contribution of Prof. Angel is in the area of "random sorting network" which has far reaching application in computer science. Apart from this he has made important contribution in diverse areas of discrete math, probability and random geometry.

He was awarded the Rollo Davidson prize, the André Aisenstadt Prize, the Charles A McDowell award, NSERC discovery accelerator supplement and Sloan research fellowship among many other prestigious recognitions.