

Submittee: Marni Mishna

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Title: Pacific Permutation Pattern Workshop

Event Type: Conference-Workshop

Location:

IRMACS, SFU Burnaby campus

Dates:

March 31- April 1 2011

Topic:

Combinatorics, enumeration, pattern avoiding permutations, applications of permutations to bioinformatics

Methodology:

Each day consisted of a three and a half hour session in the morning which was formal presentations, and the afternoon was an open working session for participants to collaborate on open problems.

Objectives Achieved:

The focus was on early career researchers with similar scientific objectives and this event gave them a chance to meet for the first time, to articulate some of their research problems, and then to collaborate on particular problems. Each participant had a different expertise, and there was much cross over in the afternoon work sessions. For example: 1. We defined some classes of enumeration problems on pattern avoiding permutations, and detailed existing known progress. 2. Combinatorial techniques were applied to greatly simplify the analysis of an algorithm used in bioinformatics (development of ancestral genomes) 3. Progress on enumerative questions was aided by strengthening combinatorial understanding of a certain class of objects related to RNA structure prediction.

Scientific Highlights:

It is too early to list such detailed progress beyond what is listed above.

Organizers:

MISHNA, Marni, Math, SFU // BOOTHBY, Tom, Math, SFU

Speakers:

Lara Pudwell, Mathematics and Computer Science, Valparaiso University, Enumeration schemes // Sergi Elizalde, Math, Dartmouth, Pattern avoidance in dynamical systems // Andrew Rechnitzer, Math, UBC, Two stack permutation sorting // Andrew Crites, Math, Washington, Pattern avoidance in affine permutations // Tom Boothby, Math, SFU, Cyclic pattern avoidance // Sophie Burrill, Math, SFU, Crossings and nestings in permutations // Cedric Chauve, Math, SFU, Common intervals of permutations // Marni Mishna, Mathematics, SFU, Strong interval trees.

Links:

Comments / Miscellaneous:

The participants were very enthusiastic throughout the meeting. It was very high energy, and progress was made on several problems. We greatly appreciate the support of PIMS for this sort of small scale event for junior researchers. Several new collaborations were launched. We are also grateful to IRMACS for the research space.
