Special Session: Algebraic Combinatorics

Organizers: Hélène Barcelo, Susanna Fishel, and Kelli Talaska

Algebraic Combinatorics Informal Discussion

Room 104 O'Connor Hall, Sunday, March 17, 8:30-10:30

Special Session: Analysis of PDEs in Newtonian and Non-Newtonian Fluid Mechanics

Organizers: Evelyn Lunasin and Anna Mazzucato

<u>Analysis of PDEs in Newtonian and Non-Newtonian Fluid Mechanics Informal Discussion</u>

Room 206 O'Connor Hall, Sunday, March 17, 8:30-10:30

Special Session: Groups and Geometry

Organizers: Alexandra Pettet and Jing Tao

Groups and Geometry II

Sunday, March 17, Room 106 O'Connor Hall

8:30-8:50 Jessica Purcell, Brigham Young University Tunnels and Kleinian Groups

9:00-9:20 Jean Sun, University of Oklahoma
Projections and Stable Lengths of Mapping Class Groups

9:30-9:50 Tali Pinksy, University of British Columbia Primeness of Modular Geodesics

10:00-10:20 Talia Fernos, University of North Carolina at Greensboro Rigidity of Actions on CAT(0) Cube Complexes

Special Session: Harmonic Analysis and its Applications

Organizer: Malabika Pramanik

Harmonic Analysis and its Applications Informal Discussion Room 204 O'Connor Hall, Sunday, March 17, 8:30-10:30 **Special Session: Low-dimensional Topology**Organizers: Shelly Harvey and Ina Petkova

<u>Low-dimensional Topology II</u>

Sunday, March 17, Room 105 O'Connor Hall

- 8:30-8:50 Gordana Matic, University of Georgia Some Applications of Contact Invariants
- 9:00-9:20 Kristen Hendricks, Columbia University Doubly-periodic Knots and Link Floer Homology
- 9:30-9:50 Ina Petkova, Rice University

 The Decategorification of Bordered Heegaard Floer Homology
- 10:00-10:20 Jen Horn, Columbia University
 The Alexander Module, Seifert Form, and Categorification

Special Session: Mathematics for Human Physiology and Disease Organizers: Victoria Booth and Trachette Jackson

Mathematics for Human Physiology and Disease Informal Discussion
Room 207 O'Connor Hall, Sunday March 17, 8:30-10:30

Special Session: Model Theory Session in Honor of Carol Wood
Organizers: Alice Medvedev and Lynn Scow
Model Theory Session Informal Discussion
Room 107 O'Connor Hall, Sunday, March 17, 8:30-10:30

Special Session: Numerical Methods for PDEs

Organizers: Yingda Cheng and Fengyan Li

Numerical Methods for PDEs II

Sunday March 17, Room 205 O'Connor Hall

- 8:30-8:50 Yingda Cheng, Michigan State University Numerical Methods for Vlasov-Maxwell Systems
- 9:00-9:20 Aycil Cesmelioglu, Oakland University
 A Hybridizable Discontinuous Galerkin Method for the Incompressible NavierStokes Equations
- 9:30-9:50 Yekaterina Epshteyn, University of Utah Algorithms Composition Framework Based on Difference Potentials Method
- 10:00-10:20 Jue Yan, Iowa State University

 Maximum-Principle-Satisfying High Order Direct DG Method for Convection

 Diffusion Equations

Special Session: Random Matrix Theory and Applications

Organizer: Ioana Dumitriu

Random Matrix Theory and Applications II, Sunday, March 17, Room 206 O'Connor Hall

- 8:30-8:50 Antonia Tulino, Bell Labs (Alcatel-Lucent)
 Support Recovery with Sparsely Sampled Free Random Matrices
- 9:00-9:20 Mirjana Vuletic, University of Massachusetts-Boston The Gaussian Free Field and Strict Plane Partitions
- 9:30-9:50 Mary Radcliffe, University of Washington
 Concentrations in Sums of Random Hermitian Matrices
- 10:00-10:20 Ioana Dumitriu, University of Washington Random Regular Graphs and Wigner Matrices