## JANUARY
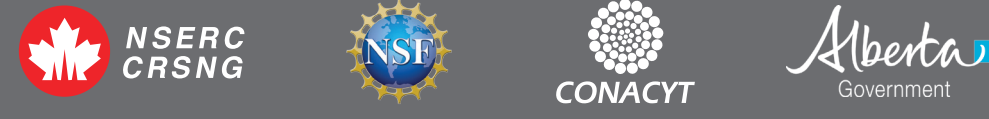
- 1/14 – 1/19 On the Interface of Machine Learning and Statistical Inference: Giles Hooker (Cornell U.), Gerard Biau (Universite de Pierre et Marie Curie), Stefan Wager (Stanford U.), Lucas Mentch (U. of Pittsburgh)
- 1/21 – 1/26 Geometry and Physics of F-theory: Washington Taylor (Massachusetts Institute of Technology), David Morrison (U. of California, Santa Barbara), Antonella Grassi (U. of Pennsylvania), Jonathan Heckman (U. of North Carolina, Chapel Hill)
- 1/28 – 2/2 Shape-Constrained Methods: Inference, Applications, and Practice: Hanna Jankowski (York U.), Mary Meyer (Colorado State U.), Bodhisattva Sen (Columbia U.), Richard Samworth (U. of Cambridge)

## FEBRUARY

- 2/4 – 2/9 Extremal Problems in Combinatorial Geometry: Andrew Suk (U. of Illinois, Chicago), Janos Pach (École Polytechnique Fédérale de Lausanne), Jozsef Solymosi (U. of British Columbia)
- 2/11 – 2/16 Relativistic Fermions and Nodal Semimetals from Topology: Marcel Franz (U. of British Columbia), Sid Parameswaran (U. of California, Irvine), Andrei Bernevig (Princeton U.), Claudia Felser (Max Planck Insitute, Dresden), N. Phuan Ong, (Princeton U.)
- 2/18 – 2/23 Modelling Imbalance in the Atmosphere and Ocean: Bruce Sutherland (U. of Alberta), Ulrich Achatz (U. of Frankfurt), Colm-cille Caulfield (U. of Cambridge), Jody Klymak (U. of Victoria)
- 2/25 – 3/2 DM-Stat: Statistical Challenges in the Search for Dark Matter: Aaron Vincent (Imperial College, London), Jessi Cisewski (Yale U.), Roberto Ruiz de Austri (U. of Valencia), Gianfranco Bertone (U. of Amsterdam)

## MARCH

- 3/4 - 3/9 Distributionally Robust Optimization: Erick Delage (HEC Montréal), Daniel Kuhn (EPFL), Karthik Natarajan (Singapore U. of Technology and Design), Wolfram Wiesemann (Imperial College, London)
- 3/11 – 3/16 Modular Forms and Quantum Knot Invariants: Robert Osburn (U. College, Dublin), Kazuhiro Hikami (Kyushu U.), Jeremy Lovejoy (CNRS, Université Paris 7)
- 3/18 – 3/23 New Developments in Open Dynamical Systems and Their Applications: Konstantin Khanin (U. of Toronto), Dmitry Dolgopyat (U. of Maryland), Mark Demers (Fairfield U.), Hongkun Zhang (U. of Massachusetts, Amherst)
- 3/25 – 3/30 Emerging Trends in Geometric Functional Analysis: Alexander Litvak (U. of Alberta), Grigoris Paouris (Texas A&M U.), Peter Pivovarov (U. of Missouri), Elisabeth Werner (Case Western Reserve U.)

## APRIL

- 4/1 – 4/6 Physical, Geometrical and Analytical Aspects of Mean Field Systems of Liouville Type: Daniele Castorina (Università di Padova), Gabriella Tarantello (Roma Tor Vergata), Changfeng Gui, (U. of Connecticut)
- 4/8 – 4/13 Entropies, the Geometry of Nonlinear Flows, and their Applications: Jose Antonio Carrillo (Imperial College, London), Eric Carlen (Rutgers U.), Jean Dolbeault (Université Paris-Dauphine), Daniel Matthes (TU-Munich), Dejan Slepcev (Carnegie Mellon U.)
- 4/15 – 4/20 Geometric Quantization: Paul-Emile Paradan (Université de Montpellier), Eckhard Meinrenken (U. of Toronto), Xiaonan Ma (Université Paris Diderot)
- 4/22 – 4/27 Numerical Analysis and Approximation Theory meets Data Science: Ben Adcock (Simon Fraser U.), Andrea Bertozzi (U. of California, Los Angeles), Ronald DeVore (Texas A&M U.), Clayton Webster (U. of Tennessee and Oak Ridge National Laboratory)
- 4/29 – 5/4 Mathematical Foundations of Data Privacy: Thomas Steinke (IBM Research, Almaden), Mark Bun (Princeton U.), Toniann Pitassi (U. of Toronto), Cynthia Dwork (Microsoft Research)

## MAY

- 5/6 – 5/11 An Algebraic Approach to Multilinear Maps for Cryptography: Alice Silverberg (U. of California, Irvine), Ted Chinburg (U. of Pennsylvania), Dan Boneh (Stanford U.)
- 5/13 – 5/18 Asymptotically Hyperbolic Manifolds: Eric Woolgar (U. of Alberta), Rafe Mazzeo (Stanford U.), Anna Sakovich (Uppsala Universitet)
- 5/20 – 5/25 Topics in the Calculus of Variations: Recent Advances and New Trends: Irene Fonseca (Carnegie Mellon U.), Maria Giovanna Mora (Università di Pavia)
- 5/27 – 6/1 Adaptive Numerical Methods for Partial Differential Equations with Applications: Ronald Haynes (Memorial U. of Newfoundland), Weizhang Huang (U. of Kansas), Chris Budd (U. of Bath)

## JUNE

- 6/3 – 6/8 Hydraulic Fracturing: Modeling, Simulation, and Experiment: Anthony Peirce (U. of British Columbia), Andrew Bunger (U. of Pittsburgh), Emmanuel Detournay (U. of Minnesota), Egor Dontsov (U. of Houston), Dmitry Garagash (Dalhousie U.)
- 6/10 – 6/15 Integrative Cell Models for Disease Intervention: Matthew Scott (U. of Waterloo), Peter Swain (U. of Edinburgh), Hans Othmer (U. of Minnesota)
- 6/17 – 6/22 Advanced Developments for Surface and Interface Dynamics - Analysis and Computation: Piotr Rybka (U. of Warsaw), Yoshikazu Giga (U. of Tokyo), Richard Tsai (U. of Texas Austin and Royal Institute of Technology)
- 6/24 – 6/29 New Trends in Syzygies: Jason McCullough (Rider U.), Giulio Caviglia (Purdue U.)

## JULY

- 7/1 – 7/6 Spectral Geometry: Theory, Numerical Analysis and Applications: Iosif Polterovich (Université de Montréal), Nilima Nigam (Simon Fraser U.), Justin Solomon (Massachusetts Institute of Technology)
- 7/8 – 7/13 Mathematical Approaches to Cell-Cell Communication and Collective Behaviours: Hyun Youk (Delft U. of Technology), Andrew Mugler (Purdue U.), Kresimir Josic (U. of Houston)
- 7/15 – 7/20 Around Quantum Chaos: Dmitry Jakobson (McGill U.), Steve Zelditch (Northwestern U.), Stephane Nonnenmacher (Université Paris-Sud)
- 7/22 – 7/27 Complex Fluids in Biological Systems: Saverio Spagnolie (U. of Wisconsin, Madison), Gwynn Elfring (U. of British Columbia)
- 7/29 – 8/3 Physics and Mathematics of Quantum Field Theory: Jan Derezinski (U. of Warsaw), Stefan Hollands (U. of Leipzig), Karl-Henning Rehren (U. of Göttingen)

## AUGUST

- 8/5 – 8/10 New Statistical Methods for Family-Based Sequencing Studies: Alexandre Bureau (Université Laval), Kelly Burkett (U. of Ottawa), Jinko Graham (Simon Fraser U.), Ingo Ruczinski (Johns Hopkins, Bloomberg School of Public Health)
- 8/12 – 8/17 Mathematics of the Cell: Mechanical and Chemical Signaling across Scales: Alexandra Jilkine (U. of Notre Dame), Jun Allard (U. of California, Irvine), Arpita Upadhyaya (U. of Maryland)
- 8/19 – 8/24 Regularity and Blow-up of Navier-Stokes Type PDEs using Harmonic and Stochastic Analysis: Kazuo Yamazaki (U. of Rochester), Hakima Bessaih (U. of Wyoming), Peter Constantin (Princeton U.), Jiahong Wu (Oklahoma State U.)
- 8/26 – 8/31 Interacting Particle Systems and Parabolic PDEs: Lenya Ryzhik (Stanford U.), Leonid Mytnik (Israel Institute of Technology), Julien Berestycki (Oxford U.), Jean-Michel Roquejoffre (Université Paul Sabatier, Toulouse)

## SEPTEMBER

- 9/2 – 9/7 Tau Functions of Integrable Systems and Their Applications: Dmitry Korotkin (Concordia U.), Alexander Its (Indiana U.)
- 9/9 – 9/14 Geometry and Physics of Quantum Curves: Olivia Dumitrescu (Central Michigan U.), Motohico Mulase (U. of California, Davis), Ron Donagi (U. of Pennsylvania), Marco Gualtieri (U. of Toronto)
- 9/16 – 9/21 Affine Algebraic Groups, Motives and Cohomological Invariants: Nikita Karpenko (U. of Alberta), Alexander Merkurjev (U. of California, Los Angeles), Anne Quéguiner-Mathieu (Université Paris 13)
- 9/23 – 9/28 The Traveling Salesman Problem: Algorithms & Optimization: Joseph Cheriyan (U. of Waterloo), Sylvia Boyd (U. of Ottawa), Amin Saberi (Stanford U.), Ola Svensson (École Polytechnique Fédérale de Lausanne)
- 9/30 – 10/5 Spin Glasses and Related Topics: Dmitry Panchenko (U. of Toronto), Antonio Auffinger (Northwestern U.), Wei-Kuo Chen (U. of Minnesota), Lenka Zdeborova (Institut de Physique Théorique)

## OCTOBER

- 10/7 – 10/12 Moduli Spaces: Birational Geometry and Wall Crossings: Dan Abramovich (Brown U.), Jim Bryan (U. of British Columbia), Dawei Chen (Boston College)
- 10/14 – 10/19 Fusion Categories and Subfactors: David Penneys (Ohio State U.), Scott Morrison (Australian National U.), Terry Gannon (U. of Alberta), Julia Plavnik (Texas A&M U.)
- 10/21 – 10/26 Crossing Numbers: Theory and Applications: Gelasio Salazar (Universidad Autónoma de San Luis Potosí), Eva Czabarka (U. of South Carolina), Bojan Mohar (Simon Fraser U.)
- 10/21 – 10/26 Hessenberg Varieties in Combinatorics, Geometry and Representation Theory: Patrick Brosnan (U. of Maryland, College Park), John Shareshian (Washington U., St. Louis), Michelle Wachs (U. of Miami), Megumi Harada (McMaster U.)
- 10/28 – 11/2 Intersection of Information Theory and Signal Processing: New Signal Models, their Information Content and Acquisition Complexity: Petros Boufounos (Mitsubishi Electric Research Labs), Stark Draper (U. of Toronto), Yonina Eldar (Israel Institute of Technology)

## NOVEMBER

- 11/4 – 11/9 WOA: Women in Operator Algebras: Sara Arklint (U. of Copenhagen), Astrid an Huef (U. of Otago), Karen Strung (Polish Academy of Sciences), Dilian Yang (U. of Windsor)
- 11/11 – 11/16 Mathematical and Statistical Challenges in Bridging Model Development, Parameter Identification and Model Selection in the Biological Sciences: Ruth Baker (U. of Oxford), Matthew Simpson (Queensland U. of Technology), Daniel Coombs (U. of British Columbia)
- 11/18 – 11/23 Unifying Themes in Ramsey Theory: Claude Laflamme (U. of Calgary), Jaroslav Nesetril (Charles U.), Slawomir Solecki (U. of Illinois), Stevo Todorcevic (U. of Toronto and Institut de Mathématiques de Jussieu)
- 11/25 – 11/30 Model Theory and Operator Algebras: Isaac Goldbring (U. of California, Irvine), Ilijas Farah (York U.), Wilhelm Winter (U. of Muenster), Dimitri Shlyakhtenko, (U. of California, Los Angeles)

## DECEMBER

- 12/2 – 12/7 Integrating the Integrators for Nonlinear Evolution Equations: from Analysis to Numerical Methods, High-Performance-Computing and Applications: Alexander Ostermann (U. of Innsbruck), Mayya Tokman (U. of California, Merced)
- 12/9 – 12/14 Shape Analysis, Stochastic Geometric Mechanics and Applied Optimal Transport: François-Xavier Vialard (Université Paris-Dauphine), Tanya Schmah (U. of Ottawa), Darryl Holm (Imperial College)

## APRIL

- 4/29 – 5/4 Recent Advances in Banach lattices: Vladimir Troitsky (U. of Alberta), Gerard Buskes (U. of Mississippi), Ben de Pafter (Delft U. of Technology), Anthony Wickstead (Queen's U., Belfast)

## MAY

- 5/6 – 5/11 Infinity-Categories, Infinity-Operads, and their Applications: Rune Haugseng, (U. of Copenhagen), David Gepner (Purdue U.), Bertrand Toën (U. of Toulouse), Gabriele Vezzosi (Università degli Studi di Firenze)
- 5/13 – 5/18 Stochastic Analysis and its Applications: Gordan Zitkovic (U. of Texas, Austin), Constantinos Kardaras (London School of Economics), Walter Schachermayer (U. of Vienna)
- 5/20 – 5/25 Recent Developments in Statistical Theory and Methods Based on Distributed Computing: Sujit Ghosh (North Carolina State U.), Xiaoming Huo (Georgia Tech.), Hua Zhou (U. of California, Los Angeles) Mu Zhu (U. of Waterloo)
- 5/27 – 6/1 Rational and Integral Points via Analytic and Geometric Methods: Tim Browning (U. of Bristol), Ulrich Derenthal (Leibniz Universität Hannover), Cecília Salgado (Universidade Federal do Rio de Janeiro)

## JUNE

- 6/3 – 6/8 Rules of Protein-DNA Recognition: Computational and Experimental Advances: Trevor Siggers (Boston U.), Marcus Noyes (New York U., Langone Medical Center)
- 6/10 – 6/15 Mexican Mathematicians in the World: Perspectives and Recent Contributions: Cecilia Gonzalez Tokman (U. of Queensland), Xavier Gomez-Mont (Centro de Investigación en Matemáticas), José Antonio Seade (Universidad Nacional Autonoma de Mexico)
- 6/17 – 6/22 Self-Similarity, Long-Range Dependence and Extremes: Rafal Kulik (U. of Ottawa), Gennady Samorodnitsky (Cornell U.), Stilian Stoev (U. of Michigan, Ann Arbor), Yi Shen (U. of Waterloo), Yizao Wang (U. of Cincinnati)
- 6/24 – 6/29 Quantitative Analysis of Immune Cell Migration and Spatial Processes in Health and Disease: Judith Mandl (McGill U.), Rob de Boer (Utrecht U.), Johannes Textor (Radboud U. Medical Center)

## JULY

- 7/1 – 7/6 Higgs Bundles and Harmonic Maps of Riemann Surfaces: Franz Pedit (U. of Massachusetts), Michael Wolf (Rice U.)
- 7/29 – 8/3 Numerical Analysis of Coupled and Multi-Physics Problems with Dynamic Interfaces: Johnny Guzman (Brown U.), Gabriel Gatica (Universidad de Concepcion), Gerardo Hernandez-Duenas (Universidad Nacional Autonoma de Mexico), Maxim Olshanskii (U. of Houston)

## AUGUST

- 8/5 – 8/10 Multiparameter Persistent Homology: Ryan Budney (U. of Victoria), Michael Lesnick (Columbia U.), Peter Bubenik (U. of Florida)
- 8/12 – 8/17 Analytic Techniques in Theoretical Computer Science: Shachar Lovett (U. of California, San Diego), Hamed Hatami (McGill U.), Raghu Meka (U. of California, Los Angeles), Ryan O'Donnell (Carnegie Melon U.)
- 8/19 – 8/24 New Frontiers in Multiphase CFD for the 21st Century Energy Mix: Anthony Wachs (U. of British Columbia), Christine Hrenya (U. of Colorado), Sarah Hormozi (Ohio U.), Sreekanth Pannala (Georgia Tech.)
- 8/26 – 8/31 Theory and Practice of Satisfiability Solving: Jakob Nordstrom (KTH Royal Institute of Technology), Sam Buss (U. of California, San Diego), Daniel Le Berre (Université d'Artois), Moshe Vardi (Rice U.)

## SEPTEMBER

- 9/2 – 9/7 Quantum Transport Equations and Applications: Roberto Quezada (Universidad Autonoma Metropolitana, Iztapalapa), Eric Carlen (Rutgers U.), Franco Fagnola, (Politecnico di Milano), George Androulakis (U. of South Carolina)
- 9/9 – 9/14 Theoretical and Applied Stochastic Analysis: Samy Tindel (Purdue U.), Fabrice Baudoin (U. of Connecticut), Cheng Ouyang (U. of Illinois, Chicago)
- 9/16 – 9/21 Symmetry Breaking in Discrete Structures: Robert Bailey (Memorial U. of Newfoundland), Thomas Tucker (Colgate U.), Wilfried Imrich (Montanuniversität Leoben), Debra Boutin (Hamilton College)
- 9/23 – 9/28 Geometric and Categorical Aspects of CFTs: Gaetan Borot (Max Planck Institute), Jorgen Ellegaard Andersen (Aarhus U.), David Ridout (U. of Melbourne), Ana Ros Camacho (U. of Utrecht)
- 9/30 – 10/5 Special Values of Automorphic L-functions and Associated p-adic L-Functions: Tadashi Ochiai (Osaka U.), Fabian Januszewski (Karlsruher Institut für Technologie), Khoai Hà Huy (Thang Long U.), Alexei Pantchichkine (Université de Grenoble I), Vinayak Vatsal (U. of British Columbia)

## OCTOBER

- 10/14 – 10/19 Neostability Theory: Thomas Scanlon (U. of California, Berkeley), Alf Onshuus (Universidad de los Andes), Anand Pillay (U. of Notre Dame), Frank Wagner (Université Claude Bernard, Lyon 1)
- 10/21 – 10/26 Lipschitz Geometry of Singularities: Anne Pichon (Aix Marseille University), Walter Neumann (Columbia University), Jawad Snoussi (Universidad Nacional Autonoma de México)
- 10/28 – 11/2 Stability Conditions and Representation Theory of Finite-Dimensional Algebras: Thomas Brüstle (Bishop's U. and Université de Sherbrooke), José Antonio de la Peña (Centro de Investigación en Matemáticas), David Pauksztello (Universita degli Studi di Verona), David Ploog (Universität Hannover)

## NOVEMBER

- 11/4 – 11/9 Statistical and Computational Challenges in High-Throughput Genomics with Application to Precision Medicine: Adam Olshen (U. of California, San Francisco), Gabriela Cohen-Freue (U. of British Columbia), Ronglai Shen (Memorial Sloan-Kettering Cancer Center), Rafael Irizarry (Harvard U.)
- 11/11 – 11/16 Computational Statistics and Molecular Simulation: A Practical Cross-Fertilization: Gabriel Stoltz (École des Ponts), Luke Bornn (Simon Fraser U. and Harvard U.), Christian Robert (Université Paris-Dauphine)
- 11/25 – 11/30 Mathematical Challenges in the Analysis of Continuum Models for Cancer Growth, Evolution and Therapy: Jean Clairambault (Institut National de Recherche en Informatique et en Automatique), Tomás Alarcón (Centre de Recerca Matemàtica, Bellaterra), Thomas Hillen (U. of Alberta)
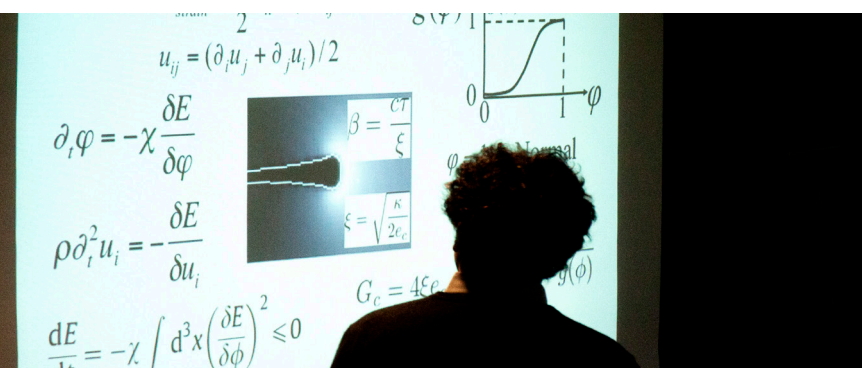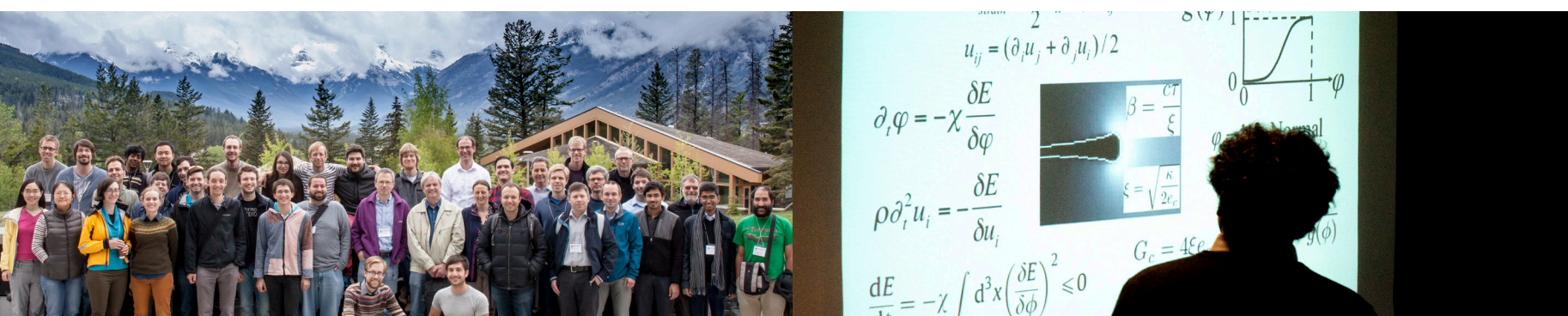
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