

Spring 2019 TAGMaC Schedule

9:15–10:00 SAS Lobby: Registration

10:00–11:00 SAS 2203: Welcome and Keynote by Lillian Pierce (Duke)

11:00–12:45 Session I

SAS 2225: Biomathematics

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| 11:00 | Megan Chambers | <i>Analyzing the Structural Properties of Pulmonary Arterial Networks</i> |
| 11:35 | William Duncan | <i>Coincidence of homeostasis and bifurcation in feedforward networks</i> |
| 12:10 | Christine Mennicke | <i>Estimation of Cell Division Generations Using Binary Trees</i> |

SAS 2235: Representation Theory and Lie Algebra

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| 11:00 | Sam Jeralds | <i>Root Components and Tensor Product Decomposition for Affine Lie Algebras</i> |
| 11:35 | Alexey Slinkin | <i>Twisted De Rham Complex on Line and \mathfrak{sl}_2 Singular Vectors</i> |
| 12:10 | Anila Yadavalli | <i>Darboux Transformations and Fay Identities of the Extended Bigraded Toda Hierarchy</i> |

SAS 2229: Numerical Analysis and Inverse Problems

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| 11:00 | Rebekah White | <i>Inferring the micro architecture of cortical bone from ultrasound attenuation</i> |
| 11:35 | Elizabeth Herman | <i>Ensuring a sparse and binary A-optimal design for Bayesian linear inverse problems</i> |
| 12:10 | Alexey Smirnov | <i>Numerical method based on the Carleman estimates for the solution of inverse source problems</i> |

12:45–2:00 Group Picture and Lunch Break

2:00–4:20 Session II

SAS 2225: PDEs and Harmonic Analysis

2:00	Lihan Wang	<i>Approximation of Correctors and Multipoles in Random Elliptic Media</i>
2:35	Mick Stukes	<i>The Unified Transform Method for linearized Korteweg–de Vries Equation</i>

SAS 2235: Number theory, Combinatorics and Algebra

2:00	Jordan Almeter	<i>Graph Associahedra, Type A Root Systems (and beyond?)</i>
2:35	Chung-Ru Lee	<i>Rational Points in Regular Orbits attached to Infinitesimal Symmetric Spaces</i>
3:10	Onkar Gujral	<i>Infinite Full Twists in the Kuperberg Spider for sp_4</i>
3:45	Victor Summers	<i>Magnitude Homology: Structure and Torsion</i>

SAS 2229: Analysis and Differential Geometry

2:00	Hang Yang	<i>Fluid Mechanics (Title TBD)</i>
2:35	Eric Geiger	<i>Euclidean Signatures of Non-Congruent Planar Curves</i>
3:10	Minh Bùi	<i>How to project onto the intersection of cone and a sphere?</i>