## MAPS-REU 2016

ALL PRESENTATIONS IN KEB 1110 (KIM ENGINEERING BUILDING), UNIVERSITY OF MARYLAND, COLLEGE PARK, MD 20742-4015

## FINAL PRESENTATION SCHEDULE

WEDNESDAY, AUGUST 3:

| Registration/Morning Beverage |  | 8:45-8:55am |
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| Opening Remarks |  | 8:55-9:00am |
| Lauren Casper (Utah State University) | Quasi Steady State Assumption as Applied to Mathematical Models of Schisoto-Immune Dynamics | 9:00-9:15am |
| Adam Busis (Harvey Mudd College) | Bounding the Maximum Dimension of the Hilbert Scheme of n Points | 9:25-9:40am |
| Gareth Johnson (North Carolina State University) | Numerical PDEs: Mixing and Enhanced Dissipation of Random Vector-Fields and Charged Particles in an Electromagnetic Field | 9:50-10:05am |
| Luc Olivier (University of South Florida) | Stability Analysis of Nonlinear Models of the Immune Response to Schistosomiasis | 10:15-10:30am |
| Gabriella Studt (MIT) | Constructing Networks to Model the Aggregation and Deformation of the Shortrange Cluster | 10:40-10:55am |
| Alexander Strzalkowski (Yale) | Data Integration through Second Order Subgraph Matching | 11:05-11:20am |
| Phuong (Sophie) Le (Mount Holyoke College) | The Search for Maximal Dimension of the Tangent Space to Hilb^nC^3 | 11:30-11:45am |
| Alexandra Lara (Emory) | Parameter Sensitivity of within Host Models of Schistosomiasis | 11:55am-12:10pm |
| LUNCH PROVIDED | MATH ROTUNDA | 12:15-1:55pm |
| William Golding (University of Maryland) | Numerical PDE's: Enhanced Mixing by Shear Flows | 2:00-2:15pm |
| Nate Gillman (Richard Montgomery High School) | Cores, Partitions, and Partitions | 2:25-2:40pm |
| Alborz Zibaii (Montgomery College) | Simplifying the Partial Isometry Problem using Vector Quantization | 2:50-3:05pm |
| Shelby Cox (UMass) | Hilbert and the Particles | 3:15-3:30pm |

THURSDAY, AUGUST 4:

| Coffee/Juice |  | 8:30-8:50am |
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| Anna Brosowsky <br> (Cornell) | Counting the Points of <br> the Hilbert Scheme of n <br> Points | $9: 00-9: 15 \mathrm{am}$ |
| Jenalee Reardon <br> (Eastern Illinois Univer- <br> sity) | Numerical PDEs: Mixing <br> and Dissipation in Fluid <br> Mechanics and Phase <br> Locking in Oscillators | $9: 25-9: 40 \mathrm{am}$ |
| Briton Park <br> (Yale) | Clustering for Substruc- <br> ture Matching | $9: 50-10: 05 \mathrm{am}$ |
| Yakir Forman <br> (Yeshiva University) | Building and Analyzing <br> Lennard-Jones Aggrega- <br> tion Networks | 10:15-10:30am |
| Christopher Dock <br> (University of California, <br> Berkeley) | Investigations into <br> the Evolution of Gene <br> Regulatory Networks via <br> Rewiring | 10:40-10:55am |
| Charles Parker, UMD/ <br> NSF supported. <br> (UMD)Mixing and Stability in <br> the Incompressible Navi- <br> er-Stokes Equations | 11:05-11:20am |  |
| Sebastian Sousa Cas- <br> tellanos <br> (East Carolina University) | Finding Saddles in Len- <br> nard-Jones Clusters | 11:30-11:45am |
| Murray Pendergrass <br> (Western Washington U) | Trying to Get Betti's <br> Number | 11:55am- 12:10pm |
| LUNCH PROVIDED | MATH ROTUNDA | 12:15-1:55pm |
| Taylor Rhoads <br> (Wake Forest University) | Partial Isometries: <br> Frequent Substructures <br> as Feature | $2: 00-2: 15 \mathrm{pm}$ |
| Chloe Ondracek <br> (Minot State University ) | Numerical PDEs: En- <br> hanced Dissipation in a <br> 3D Shear Flow | $2: 25-2: 40 \mathrm{pm}$ |
| Amal Mattoo <br> (Sidwell Friends School) | Counting Colored Boxes | $2: 50-3: 05 \mathrm{pm}$ |
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FRIDAY, AUGUST 5:
Farewell Luncheon will be held in the Math Rotunda - 12:00-2:00 PM
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Students are welcome to leave afterwards.

