

## 8:30 SAS 1108: Registration

## 9:00-10:20 SAS 1108: Welcome and Plenary talk from Peter Mucha (UNC-CH)

## 10:30-12:10 Session 1

### SAS 2225: Algebra

10:30	Timothee William Bryan	<i>Vertex Operators and the Kostka-Foulkes Polynomials</i>
10:55	McKay Sullivan	<i>Twisted Logarithmic Modules of the Symplectic Fermions</i>
11:20	Ismail Demir	<i>Classification of some solvable Leibniz algebras</i>
11:45	Bethany Turner	<i>Characterizing Solvable Leibniz Algebras</i>

### SAS 2102: PDEs

10:30	Joey Hart	<i>Variable Importance for Scattered Data</i>
10:55	John Jinho Kim	<i>Numerical Computation of a heteroclinic orbit based on the Principle of Wazewski</i>
11:20	Michael Malahe	<i>PDE Solvers for Hybrid Architectures</i>

### SAS 1108: Biomath

10:30	George Bernard Lankford	<i>Mathematical Model of Hepatitis C Viral Dynamics using a Combination Therapy of Interferon, Ribavirin, and Telaprevir</i>
10:55	Nicholas A. Battista	<i>Fluid-structure interaction, immersed boundary methods, muscle models, and all that jazz.</i>
11:20	Michael Vella	<i>Modeling CRISPR/Cas based gene drives for population replacement.</i>

### SAS 2106: Data Processing and Sensitivity Analysis

10:30	Marcella Noorman	<i>Sensitivity Analysis: Sensitivity Equations vs. Complex-Step Method</i>
10:55	Katie Schmidt	<i>Parameter Subset Selection for Mixed-Effects Models</i>
11:20	John Palowitch	<i>The Continuous Configuration Model: Extracting Communities from Edge-Weighted Networks</i>
11:45	Jared Catenacci	<i>Degradation detection in composite materials using reflectance spectroscopy</i>

## 12:10-1:15 Lunch Break

## 1:15-2:55 Session 2

### SAS 2225: Topology

1:15	Phillip Andreade	<i>Analytic torsion: generalized metric invariance</i>
1:40	Dmitry Vagner	<i>Structured Categories are Algebras over their String Diagram Operad</i>
2:05	Sam Miller	<i>Noncommutative Instantons</i>
2:30	Dan Scofield	<i>Some results in chromatic graph cohomology</i>

## SAS 2102: PDEs

<b>1:15</b>	Aaron Bardall	<i>Displacement Field Calculations for Substrate with Resting two dimensional Droplet</i>
<b>1:40</b>	Francesca Bernardi	<i>Experimental Analysis of the Diffusion of a Passive Scalar Subject to Steady Flow in a Circular Pipe.</i>
<b>2:05</b>	Faith Ozbag	<i>Combustion Waves and Wave Sequences in Porous Media</i>
<b>2:30</b>	Seyma Nur Ozcan	<i>Asymptotic Preserving Schemes for Kinetic Chemotaxis Equations</i>

## SAS 2106: Modeling

<b>1:15</b>	Cagatay Karan	<i>Constructing Investor Views on Black-Litterman Model</i>
<b>1:40</b>	Micaela Mendlow	<i>Three-dimensional refraction correction for contact lens metrology using SDOCT imaging</i>
<b>2:05</b>	Henri Petrus Roesch	<i>Geometry of the Null Penrose Inequality</i>
<b>2:30</b>	Manuchehr Aminian	<i>Geometric Skewness in the Passive Tracer Problem</i>

## **2:55-3:15 Coffee and Ice Cream Break**

## **3:15-4:15 SAS 1108: “Ask the Professionals”**