11th Annual Davis Math Conference Schedule and Abstracts

Organizing Committee: Brittany Leathers and Black Jiang

Thursday, January 28, 2021

$\underline{\mathbf{Schedule}}$

Mathematical Biology	9:30 AM - 9:55 AM	Rishidev Chaudhuri
Mathematical Biology	10:00 AM - 10:25 AM	Leighton Izu
Coffee Break		
Analysis	11:00 AM - 11:25 AM	Kevin O'Neill
Topology	11:30 AM - 11:55 AM	Roger Casals
Lunch Break		
Atmospheric Dynamics	1:30 PM- 1:55 PM	Terry Nathan
Reinforcement Learning	2:00 PM - 2:25 PM	Xin Liu
Coffee Break		
Combinatorics	3:00 PM - 3:25 PM	Anastasia Chavez
Coffee Break		
Algebraic Geometry and Combinatorics	4:00 PM-4:25 PM	Eugene Gorsky

Titles and Abstracts

1 Rishidev Chaudhuri - Mathematical Biology

<u>Title:</u> Why are brains so noisy?

<u>Abstract:</u> [TBA]

2 Leighton Izu - Mathematical Biology

<u>Title:</u>

<u>Abstract:</u> [TBA]

3 Kevin O'Neill - Analysis

Title:

<u>Abstract:</u> [TBA]

4 Roger Casals - Topology

<u>Title:</u>

<u>Abstract:</u> [TBA]

5 Terry Nathan- Atmospheric Dynamics

<u>Title:</u>

<u>Abstract:</u> [TBA]

6 Xin Liu - Reinforcement Learning

<u>Title:</u> Reinforcement Learning: Algorithm Development and Applications

<u>Abstract:</u> [TBA]

7 Anastasia Chavez - Combinatorics

<u>Title:</u>

<u>Abstract:</u> [TBA]

8 Eugene Gorsky - Algebraic Geometry & Combinatorics

<u>Title:</u> <u>Braid Varieties</u>

<u>Abstract:</u> I will define braid varieties, a class of affine algebraic varieties associated to positive braids, and describe some of their properties. This is a joint work with Roger Casals, Mikhail Gorsky and Jose Simental Rodriguez.