

## Mathematical Sciences Dept.

Unity Hall 520

### POSTER SESSION, 8:45am to 9:30am

#### Interactions of Per-Occurrence and Aggregate Deductibles

Abigail Barksdale, Allison McMorrow

Advisor: Jon Abraham, Barry Posterro

#### Heat Loss Effects of Thermal Inactivation of Pathogens in Aerosols through Electromagnetic Heating

Kai Chhoeuk

Advisor: Burt Tilley

#### The association scheme of the dihedral group and its designs

Benjamin Brodeur

Advisor: William J. Martin

#### Analyzing NFL Managerial Performance Using Sports Data

Evan Bettencourt

Advisor: Kenny Ching, Randy Paffenroth

### BREAK, 9:30am to 9:45am

### PRESENTATIONS, 9:45am to 12:15pm

#### 9:45am

#### Machine Learning, Image Processing, and Transfer Learning for Handwritten Text Recognition

Matthew Haley, Liam Hall, Christopher Langevin, Cameron Norton, Harsh Patel, Elliot Trilling

Advisor: Oren Mangoubi, Randy Paffenroth

#### 10:00am

#### Stochastic Modeling of Neuron Dynamics

Natalie Tierney

Advisor: Andrea Arnold

#### 10:15am

#### Pricing Sequence Risk

Jack Cascone, Matthew Letourneau, Zachary Pitts

Advisor: Jon Abraham, Barry Posterro

#### 10:30am

#### The Statistics of Subsequences

Chase Miller, Andrew Salls, Duncan Soiffer

Advisor: George Heineman, Daniel Reichman, Gabor Sarkozy

#### 10:45am

#### 3D Image Reconstruction of a Fossil Using Neutron Tomography

Augustine Benjamin, Scarlett Clarke

Advisor: David C. Medich, Vadim V. Yakovlev

### BREAK, 11:00am to 11:15am

#### 11:15am

#### Waste Pavillion

Megan Tupaj

Advisor: Brigitte Servatius, Herman Servatius

#### 11:30am

#### Delsarte $\mathcal{T}$ -designs in the dihedral groups

Sycamore Herlihy

Advisor: William J. Martin

#### 11:45am

#### Machine Learning for System Identification and Parameter Estimation

Caitlin Ho

Advisor: Andrea Arnold

#### 12:00pm

#### Dynamical Systems Approaches for Deep Learning

Neil Kale

Advisor: Randy Paffenroth