2022 MAA MathFest

Undergraduate Student Poster Session

Outstanding Posters

28, Applying Optimal Control With SQP to Cycling Performance Represented by Constituent Course Elements
Trevor Loe, Madison Lytle, Callan Whitney

2, Actions and Factorizations
Gradmar Maldonado Marti, Reyes Ortiz Albino

3, Zero Divisor Graphs of Certain Matrices
Wiley Debs

11, Existence of Optical Vortex Solitons in Photorefractive Media
Zihan Zhang
12, Mathematically Modeling Virus Propagation on Social Media Networks with the SMIRQ Model
Justin Browning, Arnav Mazumder, Gowri Nanda, Noelle West

17, Optimal control applied to wolf and moose population dynamics
Maya Bocanegra, James Kessinger

18, 3-Dimensional Agent-based Model of Neural Activity in the Central Nucleus of the Amygdala During Pain
Carley Reith

21, Music Feature Classification: Using Techniques of Machine Learning to Detect Genre
Ashley Mullan

34, An Agent-Based Model of Environmental Transmission of \textit{C. difficile} in Healthcare Settings
Malen De la Fuente, Maximus Lewis

41, A Shortcut to Cutting Triangles
Olivia Sylvester

43, All Tangled Up: Geometry of Tangloid Curves
Kyle Kelley

44, Euclidean Theorems in Spherical and Hyperbolic Geometries
Kai Williams, Michael Perez Palapa

47, Efficiently Computable, Stable Metrics on the Space of Chiral Merge Trees - Does One Exist?
Zach Schlamowitz, Charley Kirk, Jose Arbelo, Antonio Delgado

50, Spanning Trees of Random Cubic Graphs with Many Leaves
Sarah Acquaviva

54, Packing Edge-Colorings of Graphs
Cicely Henderson, Camille Kennedy

56, Fault-Free Tilings Using Polyominoes
Anika Homan, Samuel Webb

59, Analyzing the Impact of Alternate Assessment on Growth Mindset in Mathematics Courses
Dayanna Sanchez

69, Good Elliptic Curves
Elise Alvarez-Salazar, Miguel Aparicio, Calvin Henaku, Summer Soller