2023 MAA MathFest

Undergraduate Student Poster Session

Honorable Mentions

13, Is Access Improved? Geospatial Analyses of Virtual and In-Person Down Syndrome Specialty Programs

Jace Howard, Kayla Jensen, & Paul Llamas

14, Mathematically Modeling a Nonlinear, Passive Acoustic Filter

Bjorn Ludwig

15, Reintroducing Native Plants and Seabird Restoration on the Island of Kaho'olawe

Mandarine Chyba Rabeendran

17, Demographic Diversity and Political Districting

Jason Bruder

18, Mathematical Modeling for Honeybee Colony Populations

Iris Xue, David Johnson, & Georgia Gibson

23, A Mathematical Journey of the Immune System's Effect on COVID-19 Replication

Isaak Mouring

36, Understanding people's behavior during the COVID-19 pandemic from epidemic and mobility data

Amira Gbagba & Sofia Iturbides

40, An Agent-Based Model of *C. difficile* Transmission in a Multi-Ward Hospital

Austin Kind, Ethan Jakubowski, Matthew Senese, Laila Mahrat, & Brittany Stephenson

43, Modeling the Effects of Temperature on Within-Mosquito Malaria Parasite Transitions and Sporozoite Load

Alexander Diefes

47, Action Graphs for Catalan Sequences

Alison Cochran & Sarah Klanderman

50, Counting Sibling Portraits

Forrest Hilton

55, The Smoothed Decagon Conjecture

Lark Song & Sasha Sluis-Cremer

64, Portfolio Optimization Using the Simplex Method

Emily Kappel

68, Tacos for Thought; Understanding Sets and Relations with Tacos

Lakrisha Berry

78, Adinkras as Origami

Arsh Chhabra, Xuehuai He, Elena O'Grady, Melinda Yang, & Cameron Thomas

82, An Algorithm Expressing a Prime Number 1 mod 4 as the Sum of Two Squares Using Stern-Brocott Tree

Cuewon Kim

86, A motivated proof of the Bressoud-Göllnitz-Gordon identities

John Layne, Sam Marshall, & Emily Shambaugh

87, Generalized Alder-Type Partition Inequalities

Bryan Ducasse, Liam Armstrong, & Thomas Meyer

88, Abelian extensions arising from torsion points of elliptic curves

Alex Abrams, Tesfa Asmara, David Bonds, Aniyah Stephen, & Japeth Varlack

90, Convergence of Stochastic Gradient Ascent by Multithreading (Parallelization)

Jake Giguere

92, AI Consulting Project for CBEC comparing Naïve Bayes and Non-Naive Networks to Mitigate Limitations in Collected Data

Eli Hellmig & Bhakti Patel