

We would like to thank the following sponsors of the student prizes:

Lisa Barnes, Pearson, Student's choice of Pearson text

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Kathryn Schaefer & Ryan Hanifin, Hawkes Learning,
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Clay Stone, Wiley, \$250 toward Wiley books

Finally, we would like to thank the moderators, speakers,
and all of the volunteers!

The logo for Eastern Kentucky University (EKU) features the letters 'EKU' in a bold, italicized, maroon serif font. A registered trademark symbol (®) is located at the end of the 'U'. Below the letters is a thick, horizontal maroon bar that tapers to a point on the right side.

**COLLEGE OF SCIENCE, TECHNOLOGY,
ENGINEERING, & MATHEMATICS**



*The Thirty-Fourth Annual Eastern
Kentucky University Symposium in
Mathematics and Statistics*

Friday, April 22, 2022

The Thirty-Fourth Annual Eastern Kentucky University Symposium in Mathematics and Statistics

Friday, April 22, 2022

Registration

8:30 AM Powell 108

Opening Talk

9:00-9:50 AM Powell 108

Dr. Margaret Yoder

Eastern Kentucky University

Death, Math, and Taxes

Moving from Textbook Problems to Answering Questions for your Boss

Morning Session

Powell 108	Time	Powell 219
Reid Johnson (U) Morehead State University <i>A Quantum Error Correcting Circuit Based on Classical Reed-Solomon Codes</i>	10:00-10:20 AM	Jovan Zigic Virginia Tech <i>A Splitting Approach to Dynamic Mode Decomposition of Nonlinear Systems</i>
Kathryn Hetchel University of Kentucky <i>Algebraic Coding Theory Through the Lens of Skew- Polynomial Rings</i>	10:30-10:50 AM	Joseph Lindemuth (U) University of Kentucky <i>Planning an Efficient Path for Delivery on Campus</i>
Connor Akers (U) Eastern Kentucky University <i>A Partial Classification of Local Rings of Order p^6</i>	11:00-11:20 AM	Tanner Smith The University of Tennessee Chattanooga <i>A Determination of the Critical Mass Described by a Sturm-Liouville Problem with Spectral Parameter in the Boundary Condition</i>
Nathan Russell University of Kentucky <i>High-Level Mathematical Analysis of Low-Level Engineering Constraints</i>	11:30-11:50 AM	

(U) – undergrad

The Thirty-Fourth Annual Eastern Kentucky University Symposium in Mathematics and Statistics

Friday, April 22, 2022

Lunch Break

12:00 AM-1:20 PM 2nd floor, Case Dining Hall

Plenary Talk

1:30-2:20 PM Powell 108

Dr. David Fardo

University of Kentucky

Recent Advances in the Genetics of Neurodegenerative Diseases

Afternoon Session

Powell 108	Time	Powell 219
Emily Farmer Thomas More University <i>The Frobenius Number of a Numerical Semigroup</i>	2:30-2:50 PM	
Zachary Steckler University of Kentucky <i>Embedded Experimental Designs in Sample Surveys: Concepts and Applications</i>	3:00-3:20 PM	
Samuel Christopher Eastern Kentucky University <i>Pass the Rock: How Passing Affects Scoring in Basketball</i>	3:30-3:50 PM	

Closing Remarks

4:00 PM Powell 108