

**Session Winners**

*52nd Annual*

**STUDENT  
RESEARCH  
CONFERENCE**

**SATURDAY, MARCH 26**

**DOWNING STUDENT UNION**



Western Kentucky University • Bowling Green, KY

### **Explanation of Listings**

The program includes details for each presentation in the following order: presenter, co-presenters (as applicable), co-authors (as applicable), the session title, and the mentor for a project. Each WKU student was permitted to serve as the primary presenter on one presentation at the conference. Up to three co-presenters and up to six co-authors could also be listed. The sample below illustrates the format.

### **Sample**

**Presenter Last Name, First Name; Co-Presenter Last Name, First Name; Co-Author Last Name, First Name; "Title of a Great Presentation" (Mentor First Name Last Name)**

Session 1 Special Organized Session, "Applicable Applied Mathematics."

**Stewart, Logan; Crouch, Trey;** Ozer, Ahmet Ozkan; Poynter, Matthew; Aydin, Ahmet "Numeric Filtering Vs. Non-filtering: Boundary Control Of Vibrations On A AM String" (Ahmet Ozkan Ozer)

Session 2 Graduate Oral Presentations

**Davis, Shelby;** McDaniel, Adalin; Sorensen, Melissa; Kendrick, Mia; Hurt, Cora; Simmons, Molly "An Investigation Of Perceived Authenticity Of Diversity And Black Lives Matter Statements And Their Influence On Applicant Attractiveness" (Katrina Burch)

Session 3 Graduate Oral Presentations

**Harry, Trevor; Chloe Cooper;** Lawler, Trayson; Hourigan, Amy; Wisenden, Matthew; Strencky, Bernie "Rotary And Rivers: Saving Our Rivers Through Service Learning In Riverside Communities Via Riverboat Based Education And Outreach" (Jason Polk)

Session 4 Graduate Oral Presentations

**Heard, Whitney;** King, Rodney "Identification Of Toxic Genes From Mycobacteriophage Moomoo" (Rodney King)

Session 5 Graduate Oral Presentations

**Apostolopoulos, A.S.** "Consequences of climate change in North American cave fauna" (Keith Philips)

Session 6 Graduate Oral Presentations

**Whalin, Symone** "Liquid Chromatography With Tandem Mass Spectrometry Method Development For The Determination Of  $\beta$ -defensins In Bovine Milk" (Eric Conte)

Session 7 Undergraduate Oral Presentations

**Dawson, Miriam** "Chinese Use Of Shaming Language On The Topic Of Covid-19 In The Sino-American Relationship" (Ashely Stinnett)

Session 8 Undergraduate Oral Presentations

**Abshire, Nicholas; Sledge, Dalton** "Safety Investigation Of Driver Behavior At Work Zones In Kentucky: A Driving Simulator Study" (Kirolos Haleem)

Session 9 Undergraduate Oral Presentations

**Kilgore, Albert; William Seymour** "Development Of Collaborative Robotics To Assist Healthcare Staff And Facilities" (Farhad Ashrafzadeh)

Session 10 Undergraduate Oral Presentations

**Wood, Jeffery** "Hurricane Irma (2017) Analysis During Initialization, Intensification, And Decay Using Satellite And Radar Data" (Joshua Durkee)

Session 11 Undergraduate Oral Presentations

**Park, Andrew** "Identifying The Transcription, Translation, And Functionality Of Circular Rnas Using High-throughput Sequencing Data" (Samuel Earls)

Session 12 Undergraduate Oral Presentations

**Archey, Casey;** Durkee, Joshua "The Role Of Emergency Management Disaster Science And Its Application To The December 11, 2021, Bowling Green Tornadoes." (Joshua Durkee)

Session 13 Undergraduate Oral Presentations

**Bennett, Cooper** "White Squirrel Weather: Applied Learning Model Utilized During The December 11, 2021 Tornado Emergency And Operations At Wku" (Joshua Durkee)

Session 14 Undergraduate Oral Presentations

**Butterfield, Christian** "Where Health Meets Hackers: Public Policy Recommendations On Medical Cybersecurity Infrastructure" (Timothy Rich)

Session 15 Graduate Oral Presentations, Natural Sciences

**Welch, Tess** "An Informative Speech Regarding Christianity's Theological Influence On The Social Construction Of Disability: Biblical Stories, Their Modern Impacts, And Implications" (Garner Newman)

Session 16 Graduate Poster Presentations

**Hourigan, Amy** "An Investigation Of Carbon Cycling In An Urban Karst Groundwater System" (Jason Polk)

Session 17 Graduate Poster Presentations

**McCollum, Diamonde;** Moskal, Katie; Teeters, Jenni "Lifetime Cannabis Use Is Associated With Suicidal Ideation And Non-suicidal Self Injury" (Jenni Teeters)

Session 18 Undergraduate Poster Presentations (tie)

**Norman, Bella; Lohano, Sarisha; Vilt, Dexter;** King, Rodney; Rinehart, Claire "Determining Functions of Genes in Mycobacteriophage MooMoo" (Rodney King)

**Calhoon, Drake;** King, Rodney "Discovery and Analysis of Mycobacteriophage Viridity" (Rodney King)

Session 19 Undergraduate Poster Presentations

**Monroe, Lee;** King, Rodney "An Analysis Of Bacteriophage Sunflower1121" (Rodney King)

Session 20 Undergraduate Poster Presentations

**Brown, Gillian;** King, Rodney "The Isolation And Characterization Of Bacteriophage Hasitha" (Rodney King)

Session 21 Graduate Poster Presentations

**Cole, Zoe;** Rowland, Naomi; King, Rodney "The Discovery and Sequencing of Bacteriophage" (Naomi Rowland)

Session 22 Undergraduate Poster Presentations

**Harness, Briana;** Hakimov, Somon; Neupane, Shreya; Er, Ali; Banga, Simran "Antibacterial Effectiveness of Methylene Blue and Silver Nanoparticles on Prosthetic Joint Infections" (Simran Banga)

Session 23 Undergraduate Poster Presentations

**Patterson, Kellen;** Schulte, Connor; Nee, Matthew "Polystyrene Beads" (Matthew Nee)

Session 24 Undergraduate Poster Presentations

**Norman, Katie;** Bledsoe, Lee Anne "Exploring Laboratory Techniques In Fluorescent Dye Tracing" (Lee Anne Bledsoe)

Session 25 Undergraduate Poster Presentations (tie)

**Llarena, Andy** "San Andres Eco Resort" (Shahnaz Aly)

**Mulzer, Kerragan** "The Art Of Revitalization" (Shahnaz Aly)

Session 26 Undergraduate Poster Presentations (tie)

**Hendrick, Colton** "Strategic Design For National Park Facilities" (Shahnaz Aly)

**Rashada, Mya** "Healing Through Architecture" (Shahnaz Aly)

Session 27 Undergraduate Poster Presentations

**White, Trevor** "Community Center" (Shahnaz Aly)

Session 28 Undergraduate Poster Presentations (tie)

**Herlad, Benjamin; Tobbe, Johnathan; Sharp, Ashton; Spargo, Will;** Seymour, Liam "Vibration Mitigation in Top-Loading Washing Machines" (Morteza Nurcheshmeh)

**Chetawatee, Apirada;** Galloway, J. Michael "Implementing Virtual Reality Into Footwear Design" (J. Michael Galloway)

Session 29 Undergraduate Poster Presentations

**Bradford, Lillian** "Skating Rink Days: An Oral History Of A Traveling Roller Skating Rink" (Kate Hudepohl)

Session 30 Undergraduate Poster Presentations

**Poynter, Matthew;** Aydin, Ahmet; Stewart, Logan "Wolfram Demonstration Projects To Simulate The Control Of Vibrations On A Three-layer Beam" (Ahmet Ozkan Ozer)

Session 31 Undergraduate Poster Presentations

**Krishnani, Sahil; Gover, Harrison; Anekere, Nishu** "Water Pollution Detection Using Autonomous Drone Hardware and Software" (Farhad Ashrafzadeh)

Session 32 Undergraduate Poster Presentations

**Kendrick, Mia;** Burch, Katrina "Examining Gender Differences In Academia Within A Pandemic: Exploring The Relationship Among Social Comparisons, Emotional Demands, And Just Saying No." (Katrina Burch)

Session 33 Undergraduate Poster Presentations (tie)

**Ash, Peyton;** Naas, Alexa "Comparing Retrieval Strategies on Long-term Memory" (Jenni Redifer)

**Rai, Armaan** "Examining Men's Preferences in Psychotherapy" (Frederick Grieve)

Session 34 Undergraduate Poster Presentations

**Kerrick, Chloe** "Understanding The Mental And Emotional Impacts Of Being A Caregiver Of Socially Isolated Residents During The Covid-19 Pandemic In Kentucky." (Gary English)