

WKU REACH 2018

Research Experience and Creative Heights

48th Annual Student Research Conference Session Winners

Saturday, March 24, 2018
Downing Student Union
Western Kentucky University
Bowling Green, Kentucky

CONCURRENT MORNING SESSIONS I

8:15 – 9:45 am

Session 1: Room 3002, Graduate Papers, Natural Sciences

Ha, Dat Thinh “The Fluorescence Quenching Ability of Graphene Oxide as A Platform for Pathogenic Double-stranded DNA Sensing Utilizing Engineered Zinc Finger Protein” (Moon-Soo Kim)

Session 2: Room 2085, Graduate Papers, Natural Sciences

Bowden, Shelby “Evidence for East African Orogenic Transpression and Extension in Neoproterozoic Basement Rocks, Northwestern Ethiopian Plateau.” (Nahid Gani)

Session 3: Room 2086, Undergraduate Papers and Performances, Arts and Humanities

Spalding, Sarah “Holding the Rock: The Native American Occupation of Alcatraz Island, 1969-1971” (Patricia Minter)

Session 4: Room 2122, Undergraduate Papers, Natural Sciences

Schulz, Michael “The Influence of Topography and Land-use/land Cover on the Development of a Tornadoic Thunderstorm along the Mississippi River” (Joshua Durkee)

Session 5: Room 2123, Undergraduate Papers, Natural Sciences

Dillingham, Megan; Kitchens, Cydne “Potential for the Green Alga *Chlamydomonas Reinhardtii* to Produce Biofuel through Lignin Degradation” (Sigrid Jacobshagen)

Session 6: Room 2124, Undergraduate Papers, Social Sciences and Education

Angelle, Sarah “A Comparison of Problem-based Versus Project-based Instruction: Why Should We Be Promoting These Instructional Practices in Stem?” (Lisa Duffin)

Session 7: Room 3005, Undergraduate Performances, Arts and Humanities

Organized Symposium: “No Strings Attached”

No Individual Session Winner. The Council would like to recognize all students involved in this integrated performance: Brittany Bagwell, Carrie Moscoe, Hasum Morfin-Gandara, Emilie Gill, Megan Cary, Samuel Tuggle, David Johnson, Libby Dowell, Jazmin Chambers, Mac Miller-Reeves.

Session 8: Room 3024, Graduate Posters, Health and Human Services

Quiambao, Kailey; Young, Sonia; Wallmann, Harvey “Study Protocol: The Effects of Whole Body Vibration on The Limits of Stability In 18-29 year old Individuals with A Sub-Acute Ankle Injury” (Sonia Young)

Session 9: Room 3024, Graduate Posters, Social Sciences and Education

Luna, Catherine; Luecke, Kyle; Lawrence, Keely “Aging and the Use of Context in Predictive Learning” (Sharon Mutter)

Session 10: Room 3024, Undergraduate Posters, Health and Human Services

Jackson, Andrew; Morris, Cody; Winchester, Lee; Tomes, Ariel; Neal, Wesley; Wilcoxon, Damon; Arnett, Scott “Effect of a Simulated Tactical Occupation Stressor on Reaction Time.” (Cody Morris)

Session 11: Room 3024, Undergraduate Posters, Health and Human Services

Pennington, Susan “How Policy Affects Workplace Health: A Comparison of Workplace Health Policies between Kentucky & Colorado” (Cecilia Watkins)

Session 12: Room 3024, Undergraduate Posters, Arts and Humanities and Interdisciplinary

Darling, Anna “Violin Education in Moshi, Tanzania” (Ching-Yi Lin)

Session 13: Room 3024, Undergraduate Posters, Interdisciplinary

Malone, James; Jenkins, Trevor; Khan, Muhammad “Eclipse Innovative Heat Exchanger” (Robert Choate)

Session 14: Room 3024, Undergraduate Posters, Natural Sciences

Warlick, Corinne; Hinkley, Branden; Sims, Hunter; Jaconette, Conrad; Hill, Lawrence. “Synthesis and Polymerization of Ascorbic Acid Monomer” (Lawrence Hill)

Session 15: Room 3024, Undergraduate Posters, Natural Sciences

Austin, Haley “Landscape Genetics of *Ambystoma opacum* in Mammoth Cave National Park” (Jarrett Johnson)

Session 16: Room 3024, Undergraduate Posters, Natural Sciences

Mager, Leah “Building a Safe Haven” (Shahnaz Aly)

Session 17: Room 3024, Undergraduate Posters, Natural Sciences

Tisdale, McKenzie “Naples Florida Science Museum” (Neal Downing)

Session 18: Room 3024, Undergraduate Posters, Social Sciences and Education

Brown, Tomo “Fostering Peace and Leadership: A Project For The Black Mamba Anti-poaching Unit.” (Anthony Paquin)

CONCURRENT AFTERNOON SESSIONS I

1:00 – 2:30 pm

Session 19: Room 3002, Graduate Papers, Arts and Humanities

Antonič, Maja “Female Soldiers and Activists: Anti-fascist Front of Women in World War II Yugoslavia” (Marco Dumančić)

Session 20: Room 2085, Graduate Papers, Natural Sciences

Kholikov, Khomidkhodzha; Ilhom, Saidjafarzoda; Thomas, Zachary; Smith, Skyler; Cooper, Lauren; Er, Ali “Photodeactivation of Pathogenic Bacteria Using Graphene Quantum Dots Synthesized by Nanosecond Laser Pulses” (Ali Er)

Session 21: Room 2086, Graduate Papers, Social Sciences and Education

Sahlman, Jon; Brown, Laura “Things White People Say: Mechanisms of Moral Disengagement within Interracial Communication” (Laura Brown)

Session 22: Room 2122, Undergraduate Papers, Arts and Humanities

Hooker, Christine; "Why the One Child Policy Was Unnecessary" (Timothy Rich)

Session 23: Room 2123, Undergraduate Papers, Interdisciplinary

Reed, Natalie; "A Computerized Solution to the Fold-and-cut Problem" (Uta Ziegler)

Session 24: Room 2124, Undergraduate Papers, Natural Sciences

Irihamye, Elvin; Cecil, Wendy; Chumbler, Jackson; Nofsinger, Leah; "Analyzing the Efficiency of Reforestation Efforts In Regaining Carbon Storage In A Costa Rican Cloud Forest" (Martin Stone)

Session 25: Fine Arts Center (FAC) 319, Undergraduate Papers and Performances, Arts and Humanities

Comstock, Lilly; "Gaga: A New Approach to Movement" (Meghen McKinley)

Session 26: Room 3024, Graduate Posters, Interdisciplinary

Joshi, Gunjan; Farrell, Colin; Hunt, Matthew; “Socioeconomic Disparities & Dental Health in Kentucky” (Colin Farrell)

Session 27: Room 3024, Graduate Posters, Natural Sciences

Diaz, Gerardo “A Case Study of Wintertime Meteorological Forcings and their Effects on Surface Pollution Levels in the Cache Valley” (Rezaul Mahmood)

Session 28: Room 3024, Undergraduate Posters, Health and Human Services

Glascocock, Allison; Smith, Tanner; Smith, Janice; "The Jarvis-ecological Approach to Analyzing Adolescent Language Samples" (Janice Smith)

Session 29: Room 3024, Undergraduate Posters, Interdisciplinary
Spencer, Colton; "A Community Made Stronger" (Shahnaz Aly)

Session 30: Room 3024, Undergraduate Posters, Natural Sciences
Evans, Brendan; Meek, Romney; Henson, Alex; Gupta, Sanju "Multiple Roles of Surface Functionality of Graphene-family Nanomaterials on Electronic and Phononic Properties for Applied Electrochemistry" (Sanju Gupta)

Session 31: Room 3024, Undergraduate Posters, Natural Sciences
Alenezi, Meshal; "Islamic Center" (Neal Downing)

Session 32: Room 3024, Undergraduate Posters, Natural Sciences
Salim, Hasan; Fan, Joy; Srivastava, Ajay; "Assessing the Role of the Gene, Pebbled, In D. Melanogaster Asp Invasive Behavior" (Ajay Srivastava)

Session 33: Room 3024, Undergraduate Posters, Natural Sciences
Sims, Hunter; Warlick, Corinne; Jaconette, Conrad; Hill, Lawrence; "Synthesis and Characterization of a Benzylic Ether Boronic Ester Difunctional Initiator and Its Use in Oxidatively Degradable Polymers" (Lawrence Hill)

Session 34: Room 3024, Undergraduate Posters, Social Sciences and Education
Woodrow, Kaitlin; "The Classroom Connection of Sight Words and American Sign Language" (Susan Keesey)

Session 35: Room 3024, Undergraduate Posters, Social Sciences and Education
Ferguson, Ava "The Mediating Role of Resilience in the Relationship between Sexual Trauma and Disordered Eating Behavior" (Amy Brausch)

Session 36: Room 3024, Undergraduate Posters, Business
Seng, Amanda; Warren, Jon; Upright, Paula; "Motivations to Spectate as Drivers of Social Media Engagement" (Joanna Melancon)

CONCURRENT AFTERNOON SESSIONS II

2:45 – 4:15 pm

Session 37: Room 2124, Graduate Papers, Natural Sciences

Arthur, Michael; Gani, M. Royhan “Chaotic Sedimentary Deposits in the Gulf of Mexico and Their Implications for Hydrocarbon Exploration and Seabed Stability” (M. Royhan Gani)

Session 38: Room 2085, Graduate Papers, Interdisciplinary

Willenbrink, Elizabeth; North, Leslie; Nguyet, Vu Thi Minh; Graham, James “Policy Communication and the Impact of Agriculture on Karst Landscapes: An Example from Phong Nha-Ke Bang National Park, Vietnam” (Leslie North)

Session 39: Room 2086, Undergraduate Papers, Natural Sciences

Menix, Jacob; Schoonover, Paige “Statistical Tests for Convergence of Some Random Walks to Perturbed Brownian Motion” (Richard Schugart)

Session 40: Room 2122, Undergraduate Papers, Interdisciplinary

Wine, Matthew “Hurricane Matthew” (Joshua Durkee)

Session 41: Room 2123, Undergraduate Papers, Interdisciplinary

Edwards, Trevor “The Lunar Effect: A Study of Choreographic Storytelling and Dance on Film” (Meghen McKinley)

Session 42: Room 3024, Graduate Posters, Health and Human Services

Clark, Sydney “Emergency and Disaster Management: Disability and Inclusion” (Marilyn Gardner)

Session 43: Room 3024, Undergraduate Posters, Health and Human Services

Marita, Madeline “Testing the Correlation of Dialect Density and Social Interaction” (Janice Smith)

Session 44: Room 3024, Undergraduate Posters, Interdisciplinary

Hart, Kyler; Madsen, Augustus “Telecom Segmentation's: Predicting Customer Gender Based on Network Behavioral Trends” (Leyla Zhuhadar)

Session 45: Room 3024, Undergraduate Posters, Natural Sciences

Vaughan, Jessica; Banga, Simran “Antibiotic Resistance of Bacteria Isolated from Soils” (Simran Banga)

Session 46: Room 3024, Undergraduate Posters, Natural Sciences

Grant, Byron; Thomas, Zachary; Seyitliyev, Dovletgeldi; Kholikov, Khomidkhodzha “Laser-induced Hydrogen Generation from Coal” (Ali Er)

Session 47: Room 3024, Undergraduate Posters, Natural Sciences

Carter, Trason; Saidjafarzodaa, Ilhom; Kholikov, Khomidkhodza; Thomas, Zachary; Cooper, Lauren; Er, Ali “A Multi- and Few-layer Graphene Growth on Si(100) By Pulsed Laser Deposition” (Ali Er)

Session 48: Room 3024, Undergraduate Posters, Natural Sciences

Lamb, Emma; Uhls, Isabella; King, Rodney; Rinehart, Claire “A Comparison of the Newly Discovered Bacteriophages Lilizi and Henry Jackson” (Naomi Rowland)

Session 49: Room 3024, Undergraduate Posters, Natural Sciences

Strunjas, Anna; Patterson, Connor “Discovering and Comparing Bacteriophages Struki and Doctordiddles” (Claire Rinehart)

Session 50: Room 3024, Undergraduate Posters, Social Sciences and Education

Weyman, Kaitlyn “An Analysis of Age and Language Interaction: Bilingualism Does Not Effect Normal Age-related Cognitive Decline” (Matthew Shake)

Session 51: Room 3024, Undergraduate Posters, Natural Sciences

Sairajeev, Sasha; Al Khayyat, Sarah; Rinehart, Claire; King, Rodney “The Discovery and Genomic Comparison of Two Novel Bacteriophages Cardisan and Kahve” (Naomi Rowland)

Session 52: Room 3024, Undergraduate Posters, Business

Gaiko, Steven “Smart Phone App Development and Implementation” (Huanjing Wang)

