



46th Annual Student Research Conference

Saturday, April 2, 2016
Downing Student Union

Western Kentucky University
Bowling Green, Kentucky



SESSION WINNERS

Session 1 Graduate Oral Papers, Natural Sciences

Farshid Alavi "Optimization of Process Parameters in Micro Electrical Discharge Machining (EDM) of Ti-6Al-4V Alloy Based on Full Factorial Design" (Dr. Muhammad Jahan)

Session 2 Graduate Oral Papers, Natural Sciences

Michael Gilbert "Impacts of Habitat Fragmentation on the Trophic Morphology of a Threatened Desert Fish (*Xyprinodon pecosensis*)" (Dr. Michael Collyer)

Session 3 Graduate Oral Papers, Health/Human Services and Humanities

Jessica Stallings and Tamara Thomas "Childbirth Experiences of Doula-Assisted Births" (Dr. Marilyn Gardner)

Session 4 Undergraduate Oral Papers, Humanities

Brittany Broder "The Rise of Nuclear Energy in Arab States: Future Impacts" (Dr. David DiMeo)

Session 5 Undergraduate Oral Papers, Humanities

Hannah Ruggles "The Age-Friendly Cities Project in Bowling Green: An Oral History" (Dr. Dana Bradley)

Session 6 Undergraduate Oral Papers, Natural Sciences

Aubrey Penn and Niharika Neerudu “Environmentally Friendly Method for Nickel Nanostructure Synthesis” (Dr. Hemali Rathnayake)

Session 7 Undergraduate Oral Papers, Natural Sciences

John Bertram “TiO₂ Embedded in PDMS - A Buoyant, Microstructured Photocatalyst” (Dr. Matthew Nee)

Session 8 Undergraduate Oral Papers, Humanities

Sean Jacobson “Western’s New Deal: The Shaping of College Heights During the Great Depression” (Dr. Patricia Minter)

Session 9 Undergraduate Posters, Health/Human Services

Niah Soult and Darbi Haynes-Lawrence “Illustrated Storybook Helps Parents Explain Their Multiple Sclerosis to Their Children” (Dr. Darbi Haynes-Lawrence)

Session 10 Undergraduate Posters, Business

Jessica Canada “Tipping the Scales: Is ‘Right-to-Work’ Legislation Your Right to Prosperity?” (Dr. Brian Strow)

Session 11 Undergraduate Posters, Natural Sciences

Olivia Urso, Katie Alexander, and Rodney King “Discovery and Comparison of Novel Mycobacteriophages Schadenfreude and Widewale” (Dr. Rodney King)

Session 12 Undergraduate Posters, Natural Sciences

Hamilton Brindley “A Cultural Center and Town Hall: to Propel Adairville, Kentucky's Revitalization” (Prof. Shahnaz Aly)

Session 13 Undergraduate Posters, Natural Sciences

Brandon Ernestes “Hydrocarbon Potential of Salem-Warsaw in Warren County, Kentucky” (Dr. Michael May)

Session 14 Undergraduate Posters, Natural Sciences

Ayush Prasad “A Mathematical Model for the Interactions of Matrix Metalloproteinase and Their Inhibitors in a Wound” (Dr. Richard Schugart)

Session 15 Undergraduate Posters, Natural Sciences

Jasmine Ernst, Jordan Gregory, and Elizabeth Lemerise “An Analysis of the Types of Feedback Provided by Head Start Teachers to Children” (Dr. Elizabeth Lemerise)

Session 16 Undergraduate Posters, Health/Human Services

Alexandra Oldham “Causal Attributions as a Mediator for the Relationship Between Self-Efficacy and Performance – Do Performance Goals Also Impact This Relationship?” (Dr. Steven Wininger)

Session 17 Undergraduate Posters, Natural Sciences

Jessica Johnson and Jarrett Johnson “Growth and Survival of Salamanders Exposed to Different Formulations of Glyphosate-Based Herbicide” (Dr. Jarrett Johnson)

Presenter/Co-Presenters, Co-Authors “Title” (Mentor)

Session 18 Graduate Posters, Health/Human Services

Scott Boudreaux, Jesse Espe, Corey Moore, and Kurt Nelly “Comparison of Shoulder Torque Production in Make and Break Tests as Performed by DPT Students Using a Hand-Held Dynamometer” (Dr. Kurt Neelly)

Session 19 Graduate Oral Papers, Humanities

Rachel Burns, Rebecca Russell, Callie Haynes, and Ahuva Ambush “Signing with Children with Down Syndrome” (Dr. Janice Smith)

Session 20 Graduate Oral Papers, Natural Sciences

Gongbo Liang “Pedestrian Detection Using Line Segments” (Dr. Qi Li)

Session 21 Undergraduate Oral Papers, Natural Sciences

Lauren Bailes and Diane Lickenbrock “Examining Predictors of Paternal Sensitivity: The Role of Paternal Personality and Infant Temperament” (Dr. Diane Lickenbrock)

Session 22 Undergraduate Oral Papers, Natural Sciences

Connor Brooks, Christopher Goulet, and Michael Galloway “Autonomous Control of an Indoor Micro Aerial Vehicle Using a Multi-Layer Architecture” (Dr. Michael Galloway)

Session 23 Undergraduate Oral Papers, Natural Sciences

Alex Sizemore “Investigation of the 16 June 2014 Pilger, Ne Tornado Event” (Dr. Joshua Durkee)

Session 24 Undergraduate Oral Papers, Humanities

Alex Brislin “Virtual Reality: A Film Making Tool or Destruction of an Art Form?” (Dr. Jerod Hollyfield)

Session 25 Undergraduate Oral Papers, Humanities

Abigail Ponder “The Preservation of Identity: A Narrative Examination of National Parks in Kentucky” (Dr. Judith Szerdahelyi)

Session 26 Undergraduate Oral Papers, Social Sciences

Jay Richey “Building a Superpower: The Asian Infrastructure Investment Bank” (Dr. Timothy Rich)

Session 27 Undergraduate Oral Papers, Social Sciences

Andrew Henderson, Cathryn Ellis, Sydney Collier, Jacob Tipton, Emily Peck, Carley Jackson, and Chelsea Murray “Gender and Communication” (Dr. Blair Thompson)

Session 28 Undergraduate Posters, Natural Sciences

Garrett Haug “Developing the Body of Philadelphia” (Prof. Shahnaz Aly)

Session 29 Undergraduate Posters, Health/Human Services

India Martinez “Prevalence of Depression in Children Diagnosed with Autism Spectrum Disorder” (Dr. Colin Farrell)

Session 30 Undergraduate Posters, Natural Sciences

Taylor Senay, Rodney King, and Claire Rinehart “Spontaneous Mutations in a Viral Population Increase Genetic Diversity” (Dr. Rodney King)

Session 31 Undergraduate Posters, Social Sciences/Education

Luci Keller “Tourism Impacts On Chilean Patagonia: What Is Happening and How Can We Fix It?” (Dr. David Keeling)

Session 32 Undergraduate Posters, Natural Sciences

Tori Hampton “A Meteorological Perspective of the Hazardous Outcomes During Two Consecutive February-March 2015 Winter Storms Across Kentucky” (Dr. Josh Durkee)

Session 33 Undergraduate Posters, Natural Sciences

Clayton Hollen, Saxon Steel, Muhamed Suljic, and Abdulaziz Suqair “Alucore Failure Testing” (Dr. Mortenza Nurcheshmeh)

Session 34 Undergraduate Posters, Natural Sciences

Jonathan Kinnard, Kyle Moss, and Stacy Wilson “Security Analysis of the MQTT Protocol for the Internet of Things” (Dr. Stacy Wilson)

Session 35 Undergraduate Posters, Natural Sciences

James Biddle, Sherafghan Khan, and Rodney King “Isolation, Characterization, and Comparison of Two Novel Bacteriophages” (Dr. Rodney King)

Session 36 Undergraduate Posters, Humanities

Sara Pecina “Steps in Time: An Exploration of Tap Dance Education” (Prof. Amanda Clark)

Session 37 Graduate Oral Papers, Humanities

Claire Casey “Opposing Treatments of Ethnic Representation in the Television Series *Parks and Recreation*” (Dr. Ann Ferrell)

Session 38 Graduate Oral Papers, Natural Sciences and Social Sciences/Education

Robert Schaefer, Jason Polk, and Kegan McClanahan “Sourcing and Dynamics of Karst Hydrologic Inputs On Harmful Algal Bloom Occurrences in Kentucky Lakes” (Dr. Jason Polk)

Session 39 Undergraduate Oral Papers, Humanities

Michael Blackshire “Their Eyes Were Watching Brooklyn: Cinema’s Use of Racial and Social Issues in Brooklyn and How Gentrification and Appropriation Define a Borough” (Dr. Jerod Hollyfield)

Session 40 Undergraduate Oral Papers, Social Sciences

Barrett Greenwell “Do Ask, Do Tell: The Exclusion of Gay Men from Universal Male Conscription in the Republic of Turkey” (Dr. Patricia Minter)

Session 41 Undergraduate Oral Papers, Natural Sciences

William Hamilton, Jason Payne, and Rajalingam Dakshinamurthy “Carbapenem Functionalized Gold Nanoparticle Synthesis, Characterization, and Antibacterial Susceptibility Testing” (Dr. Stuart Burris)

Presenter/Co-Presenters, Co-Authors “Title” (Mentor)

Session 42 Undergraduate Oral Papers, Humanities (co-winners)

Ellis Fraser “Float Like a Repressive White Society, Sting Like a Black Liberation Movement: The Use of Cinema to Tell Narratives of Black Liberation” (Dr. Jerod Hollyfield)

Hope Jackson “The Fruitlands Failure, Or How Not to Create an Intentional Community” (Dr. Tim Evans)

Session 43 Undergraduate Oral Papers, Combination of Subject Areas

Jacob Willoughby “The Concept of Truth: Examining a Cornerstone of Narrative Cinema” (Dr. Jerod Hollyfield)

Session 44 Graduate Posters, Natural Sciences

Kenneth Anderson “Growth of the Marbled Salamander (*Ambystoma opacum*) on Substrates of Varying Acidity” (Dr. Jarrett Johnson)

Session 45 Graduate Posters, Health/Human Services

Paige Wessel, Brooke Grimes, BethAnne Clayton, Nuha Shaker, Battogtokh Zagdsuren, and Jill Maples “Accuracy of Accelerometers During High Intensity Body Weight Resistance Training in Males and Females” (Dr. Jill Maples)

Session 46 Graduate Posters, Health/Human Services

Sai Pavan Adigarla “Nutritional Status and the Effectiveness of ARVs in HIV Patients in Tanzania” (Dr. William Mkanta)

Session 47 Graduate Posters, Business and Education

Megan Sparks and Lisa Duffin “Prevalent Brain-Based Myths in Education” (Dr. Lisa Duffin)

Session 48 Graduate Posters, Combination of Subject Areas

Emily Martin “Examining the Effect of Expatriate Narcissism Levels on Cultural Adjustment and Global Leadership Effectiveness” (Dr. Amber Schroeder)

Session 49 Undergraduate Posters, Natural Sciences

Tara Watkins, Becky Gilfillen, and Naomi Rowland “Influence of Tillage and Fertilizer Regime On Presence of Select Pathogenic Organisms in a Silt Loam Soil” (Dr. Becky Gilfillen)

Session 50 Undergraduate Posters, Natural Sciences

Benjamin McDonald and Sara Carrizosa “Nanodiamond Modified Boron-Doped Diamond Surface Redox Chemistry: Influence of Physicochemical Properties On Electrocatalytic and Biocatalytic Processes” (Dr. Sanju Gupta)

Session 51 Undergraduate Posters, Natural Sciences

Logan Mitchell and Kegan McClanahan “Long-Term Monitoring of Storm Responses with in a Complex Karst Aquifer” (Dr. Jason Polk)

Session 52 Undergraduate Posters, Natural Sciences

Andrew Frits “Community Revitalization Through Architecture” (Prof. Shahnaz Aly)

Session 53 Undergraduate Posters, Health/Human Services and Business

Alejandra Valadez Rodriquez “The Implementation of Alternative Pain Control Methods by Dental Hygienists” (Dr. Joseph Evans)

Presenter/Co-Presenters, Co-Authors “Title” (Mentor)