

# Conference Program

March 2-3, 2018  
University of Louisville



## GSRRC

11th Annual  
Graduate Student Regional Research Conference  
*"Thriving in and beyond graduate school"*



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# Welcome

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## Welcome from the Graduate Student Council

Now in its 11<sup>th</sup> year, the Graduate Student Regional Research Conference (GSRRC) offers graduate students an opportunity to share their research with the University of Louisville community through oral talks, poster presentations, and the 3-minute thesis competition. Students gain valuable experience in presenting their work to an interdisciplinary audience and the conference highlights the diversity of graduate student research across the region.

The GSRRC is hosted annually by the Graduate Student Council (GSC) at the University of Louisville. The GSC is comprised of around fifty graduate students who serve to represent all graduate students at the University of Louisville. Amongst other things, the GSC organizes this conference annually to promote professional development and encourage presentation of graduate research.

On behalf of the Graduate Student Council, welcome and we hope you enjoy the conference!

Kelsey Kaht  
*Conference Chair*



## Welcome from the Deans of the Graduate School

On behalf of the School of Interdisciplinary and Graduate Studies, Dean Beth A. Boehm and Associate Dean Paul DeMarco welcome you to the Graduate Student Regional Research Conference. Our Graduate Student Council has worked tirelessly to put together a strong program of events, papers, and posters, and we know you will find the work of your colleagues from across the state intellectually stimulating. We hope you will use these two days to network with graduate students from other programs and that you will make the most of this opportunity to learn from the work of others. We are amazed at how much exciting research and scholarship is going on at the University of Louisville, as well as at other public and private institutions across the region, and we are pleased to showcase some of it here. We hope to meet many of you over the two days of the conference and wish you a wonderful conference.

Dr. Beth A. Boehm  
*Dean, Graduate School*

Dr. Paul DeMarco  
*Associate Dean, Graduate School*



## Sponsors & Contributors

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## Acknowledgements

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*The Graduate Student Regional Research Conference Planning Committee would like to extend the deepest gratitude to the following individuals for their assistance in planning and executing this research conference.*

### Graduate Student Council Executive Board

Lily Assgari	President
Kelsey Kaht	Vice President of External Affairs
Luis Cardona	Vice President of Internal Affairs
Manooch Saeedi	Director of Travel
Pegah Sagheb	Director of Finance
Jakia Marie	Director of Communication
Drew Skidmore	Senator At-Large
Gabrielle Read-Jasnoff	Senator At-Large

### Volunteers

Hyunin Baek  
Sahar Goharshenasan  
Julie Gosney  
Ashanka Kumari  
Catherine Skaggs  
Tyler Wood

### Oral Talk Moderators

Ash Braunecker  
Alexis Crook  
Julie Gosney  
Alyssa Huff  
Nick Kolarik  
Ashanka Kumari  
Lindsey Nason  
Jacob Read  
Matthew Roth  
Kimberly Sanders  
Drew Skidmore

### Faculty Judges

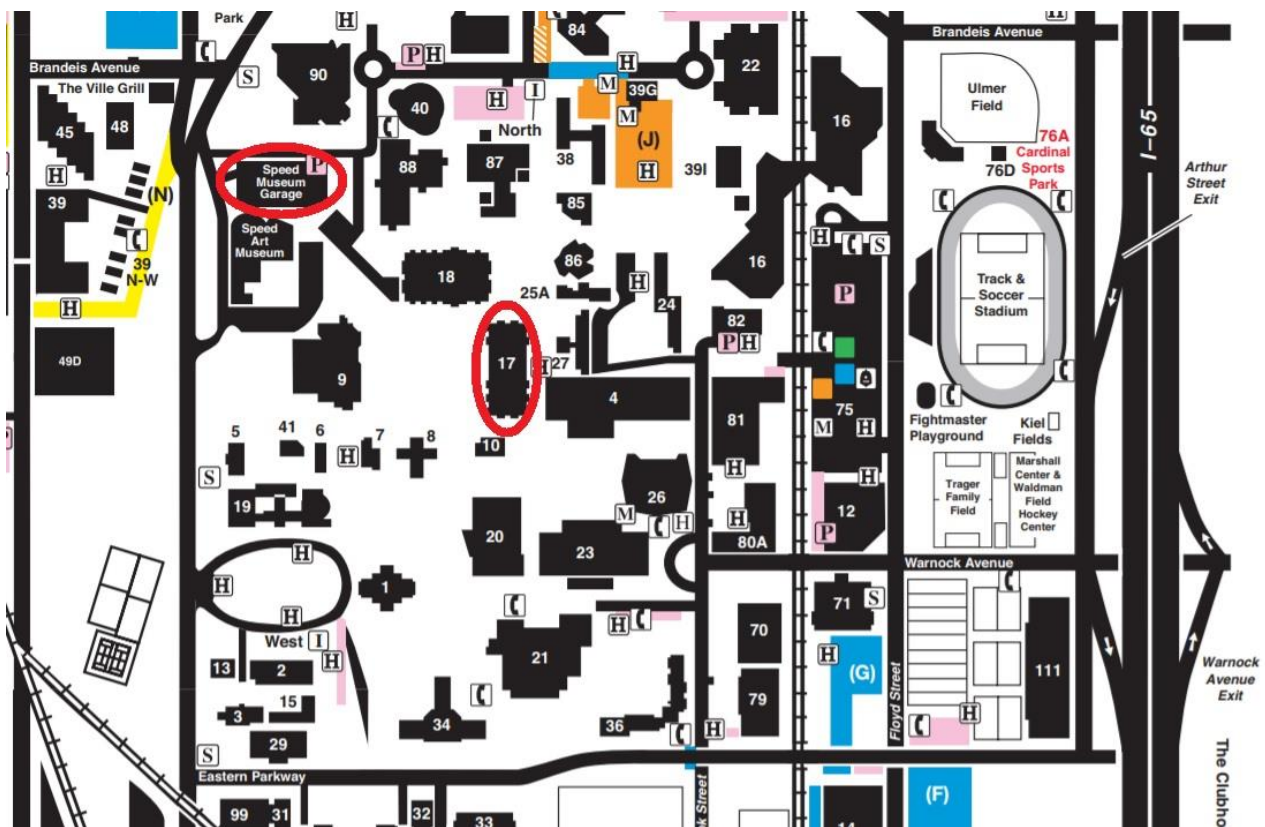
Amanuel Beyin  
Bill Cheadle  
Paul DeMarco  
Kathleen Fischer  
John Gamel  
Muriel Harris  
Mary Makris  
Michael Menze  
Thomas Roussel  
Gabriela Schneider  
Christian Stilp  
Sandra Wise  
Janet Woodruff-Borden

## Campus Maps & Parking

### UL Belknap Campus Map and Parking for March 2

Parking is available in the Speed Art Museum Parking Garage at an hourly rate with a maximum daily rate of \$8.00 per vehicle. The garage is located at 2035 South Third Street. From I-65 South, take Exit 133 to University Boulevard. Continue straight on Arthur Street until the intersection with Eastern Parkway. Turn right onto Eastern Parkway. Continue until the intersection with Third Street and turn right on Third Street. The garage is located on the right after about 0.3 miles, just after the Speed Art Museum building which has sculptures in the front lawn.

Once parked, exit the garage and walk southeast toward the Bingham Humanities Building, labeled 17 on the map.





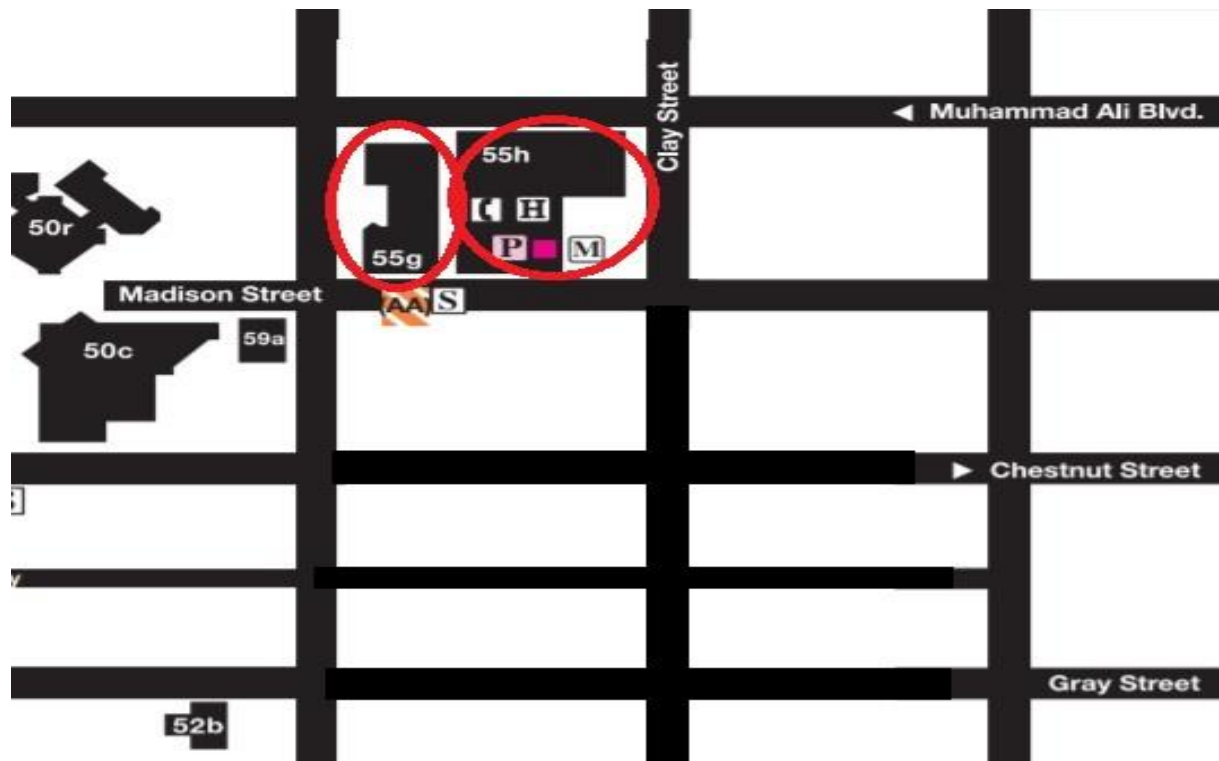
## Campus Maps & Parking – cont.

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### UL Health Sciences Campus Map and Parking for March 3

There is metered street parking available all around the CTR Building at an hourly rate. Alternatively, parking is available in the 620 Garage, labeled 55h on the map below, for visitors at an hourly rate with a maximum daily rate of \$9.00 per vehicle. The visitor entrance to the garage is located at 513 South Clay Street. From I-65 North, take Exit 136A to Broadway/Chestnut Street. Use the right two lanes to turn right onto East Broadway at the light. In about 0.5 miles, turn left onto South Clay Street. Continue 0.3 miles and then the visitor entrance of the garage will be on the left.

Once parked, walk out of the garage and around the block to the entrance of Clinical and Translational Research Building, labeled 55g on the map below. The building entrance faces South Hancock Street.



## Schedule at a Glance

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### Friday, March 2, 2018

#### UL Belknap Campus

Registration	10:15 am – 4:00 pm	Humanities Main Lobby
Coffee/Snacks	10:15 am – 11:30 am	Humanities Room 109
Speed Networking Event	10:15 am – 11:30 am	Humanities Room 109
Oral Talk Session I	11:00 am – 12:00 pm	Humanities Various Locations
Poster Session I	11:00 am – 12:00 pm	Humanities 2 <sup>nd</sup> Floor
Lunch	12:00 pm – 12:30 pm	Humanities Room 109
3-Minute Thesis	12:30 pm – 2:30 pm	Humanities Auditorium 100
Oral Talk Session II	2:45 pm – 3:45 pm	Humanities Various Locations
Poster Session II	2:45 pm – 3:45 pm	Humanities 2 <sup>nd</sup> Floor
Keynote Lecture	4:00 pm – 5:00 pm	Humanities Auditorium 100
Book Signing/Reception	5:00 pm – 5:30 pm	Humanities Main Lobby

### Saturday, March 3, 2018

#### UL Health Sciences Campus

Registration	9:00 am – 2:00 pm	CTRB Main Lobby
Coffee/Snacks	9:00 am – 11:30 am	CTRB Main Lobby
Oral Talk Session III	9:45 am – 10:45 am	CTRB Various Locations
Poster Session III	9:45 am – 10:45 am	CTRB 1 <sup>st</sup> Floor
Career Workshop	11:00 am – 12:00 pm	CTRB Room 101
Lunch	12:00 pm – 12:30 pm	CTRB Main Lobby
Oral Talk Session IV	12:30 pm – 1:30 pm	CTRB Various Locations
Poster Session IV	12:30 pm – 1:30 pm	CTRB 1 <sup>st</sup> Floor
Oral Talk Session V	1:30 pm – 2:30 pm	CTRB Various Locations
Poster Session V	1:30 pm – 2:30 pm	CTRB 1 <sup>st</sup> Floor
Awards Reception	2:45 pm – 3:15 pm	CTRB Main Lobby



## Keynote Speaker

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### Dr. Rebecca Heiss

Friday, March 2, 2018

4:00 pm – 5:00 pm

Bingham Humanities, Auditorium 100

#### *Blind Spots to Breakthroughs: The BS of Your Brain*

Business, biology, brain science: Dr. Rebecca Heiss brings the best of all three worlds together. With her expertise in human behavior and evolutionary psychology, Rebecca's style brings her audiences along for an enlightening journey into their own minds.

After earning a PhD with research designated as “transformative” by the National Science Foundation, Rebecca went on to hold multiple appointments in academia, applying her research to solve practical problems in overcoming what she refers to as “biological ghosts”—subconscious behaviors that haunt modern life. As the CEO and founder of Biologic Balance (a stress monitoring and reduction company) she stays busy helping others “become their best biological selves.” Described as a creative thought leader, Rebecca was honored to deliver a TEDx on a portion of her work and has built her career on helping others break through their “BS” (Blind Spots); ancestral brain pathways mismatched with a modern environment. Having conquered the business of biology, Dr. Heiss has turned her focus to revolutionizing the biology of business.

Rebecca's engaging personality energizes individuals and organizations to view their behaviors and choices through an insightful new lens. Her accessible and humorous keynotes and workshops empower clients to “connect the dots” to transform conceptual frameworks into actionable items that deliver results.



## Special Events

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### Speed Networking

Friday, March 2, 2018

10:15 am – 11:00 am

Bingham Humanities, Room 109

Sponsored by the Graduate Network in Arts & Sciences at UL, this event encourages attendees to grab breakfast, then mix and mingle with fellow students. Informal time to practice your elevator pitch and develop new connections to start off the conference on the right foot.

### 3-Minute Thesis Competition

Friday, March 2, 2018

12:30 pm – 2:30 pm

Bingham Humanities, Auditorium 100

The 3-Minute Thesis Competition is an opportunity for students to present their research in a competitive showcase. Contestants must present their work in no more than three minutes with a single, static Powerpoint slide. The winner at the University of Louisville will proceed to the regional competition.

#### 2018 Contestants

Binod Basyal

Shaun Digan

Brett Janis

Gani Kahraman

Fadoua Khmaissa

Bradley Kimbel

Susana Perez Martinez

Jesse Rozsa

Becky Steele

Kai Zhang

Yuan Zhang



## Special Events – cont.

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### Career Workshop “Thriving Beyond Graduate School”

Saturday, March 3, 2018

11:00 am – 12:00 pm

Clinical and Translational Research Building, Room 101

Free career workshop for graduate students. The goal of this workshop is to help graduate students prepare for a career as they finish school and will focus on converting a CV to a resume, utilizing LinkedIn for job searching, finding and networking with potential employers, acing an interview, and exploring careers in academia versus beyond academia. Presentation by Karen Boston, Josh McKee, and Rosie Shannon from the UL Career Development Center.



*You've got this.*

**Career Development Center  
University of Louisville**



## Special Events – cont.

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### Awards Ceremony

Saturday, March 3, 2018

2:45 pm – 3:15 pm

Clinical and Translational Research Building, Main Lobby

#### Oral Talk Awards

- Audience members will vote for their favorite oral talks during the conference. The top two favorite oral talk presenters will each receive a certificate and a gift basket from Raising Cane's valued at \$35.



#### Poster Presentation Awards

- Faculty will choose a first-place presenter from each poster session. Winning poster presenters will receive a certificate and a \$25 Quills gift card.



#### 3-Minute Thesis Competition Awards

- Faculty will choose a first-place winner and runner-up in the competition. First-place will receive a \$100 Quills gift card. The runner-up will receive a \$10 gift certificate.

#### Audience Raffle Prizes

- Everyone who attends a conference event will receive a raffle ticket to enter the drawing towards raffle prizes. Must be present to win. Prizes include an Amazon Echo Dot, Amazon Fire Tablet, FujiFilm Instax Mini 8 Camera, Roku Streaming Stick, External Hard Drive, and more!



## Oral Talk Session I

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### HUMANITIES ROOM 210

#### Physics

**11:00 am – 11:20 am**

Rong Zhao, UofL

*Electrical Transport Properties of Graphene Nanowalls Grown at Low Temperature Using PECVD*

**11:20 am – 11:40 am**

Becky Steele, UofL

*Smiley Faces in Space: Gravitational Lenses and the Hunt for Dark Matter*

**11:40 am – 12:00 pm**

Adel Alruqi, UofL

*Synthesis and Characterization of Heterostructures Based on Two-Dimensional (2D) Materials*

### HUMANITIES ROOM 216

#### English Rhetoric & Composition

**11:00 am – 11:20 am**

Ashanka Kumari, UofL

*First-Generation Rhetoric and Composition PhD Student Perceptions on Navigating Graduate Study and Negotiating a Work-Life Balance*

**11:20 am – 11:40 am**

Amy McCleese Nichols, UofL

*Mapping Literacy Infrastructure: Networked Sponsorship in a Rural Community*

**11:40 am – 12:00 pm**

Khirsten L. Echols, UofL

*Turning the Page, Shifting the View: Considering HBCU Literacies and Tougaloo*

### HUMANITIES ROOM 220

#### Biology

**11:00 am – 11:20 am**

Parul Singh, UofL

*Developing a Novel Protein Expression System: Expression of Lignolytic Enzymes from White-rot Fungi in *Physcomitrella patens**

**11:20 am – 11:40 am**

Grace Freundlich, UofL

*The Green Leaf Volatile Cis-3-Hexenyl Acetate Differentially Affects Growth and Fitness of Field-Grown *Phaseolus lunatus* and *Capsicum annuum**

**11:40 am – 12:00 pm**

Abhinav Kumar Maurya, UofL

*Memory of Seeds: Effect of Plant Volatile Exposure to Seeds on Plant Growth, Development and Defense*

### HUMANITIES ROOM 222

#### Computer Science

**11:00 am – 11:20 am**

Wenlong Sun, UofL

*Recommendation System with Deep Learning Frame*

**11:20 am – 11:40 am**

Pegah Sagheb Haghighi, UofL

*Sentiment Analysis with Deep Learning*

#### Civil Engineering

**11:40 am – 12:00 pm**

Song Wang, UofL

*Connected Vehicles-Based Smart Horizontal Curve Road-Departure Avoidance System via In-Vehicle Heads-Up Display*

## Oral Talk Session I – cont.

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### HUMANITIES ROOM 224

#### Social Work

**11:00 am – 11:20 am**

Kirsten Elin Smith, UofL

*Kratom Use as an Informal Harm-Reduction  
Strategy Among a Subset of Polysubstance  
Users Enrolled in Residential Drug Treatment*

#### Criminal Justice

**11:20 am – 11:40 am**

Jarrold Hinton, UofL

*Public Safety and Cybersecurity in the Smart  
City and the Internet of Things*

#### Pan-African Studies

**11:40 am – 12:00 pm**

Alexander G. Kaliannan, UofL

*Indians in Apartheid South Africa:  
Interpretations of Ghanaian Independence*



## Oral Talk Session II

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### HUMANITIES ROOM 112

#### Sociology

2:45 pm – 3:05 pm

Will Fisher, University of Kentucky  
*Filipino-American Crime and Deviance; A Theoretical Framework*

3:05 pm – 3:25 pm

Cameron McAlister, University of Kentucky  
*A Qualitative Evaluation of Use, Access and Concerns with a Syringe Exchange Program: Perspectives and Experiences of People Who Inject Drugs in a Rural Community*

3:25 pm – 3:45 pm

Adam Sizemore, UofL  
*Appalachian Resiliency: Life after the Martin County Sludge Spill*

### HUMANITIES ROOM 114

#### Physics

2:45 pm – 3:05 pm

Ruchira Dharmasena, UofL  
*Energy Storage Beyond Li-Ion Batteries; Electrochemical Study of Mesoporous TiO<sub>2</sub> Coated Carbon Sulfur Cathode and Pre-Lithiated  $\alpha$ -MoO<sub>3</sub> Anode for High Capacity and Durable Li-S Batteries*

3:05 pm – 3:25 pm

Aymen Qatamin, UofL  
*Influenza Virus Immunosensor Based on an Electrochemical Surface Plasmon Resonance (EC-SPR) under Potential Modulation*

3:25 pm – 3:45 pm

Jafar Ghithan, UofL  
*Reduction of Photobleaching Effects in Super Resolution Microscopy with Modulated STED*

GSRRRC, University of Louisville

### HUMANITIES ROOM 117

#### English Rhetoric & Composition

2:45 pm – 3:05 pm

Joseph Franklin, UofL  
*Complicating Cultural Exchange for Teaching*

#### Music Composition

3:05 pm – 3:25 pm

James May, UofL  
*Dealing with Text in Contemporary Music Composition*

#### Theatre Arts

3:25 pm – 3:45 pm

Ross Joel Shenker, UofL  
*Gestures of Creative Recovery in and after Performance of Timberlake Wertenbaker's "Our Country's Good"*

### HUMANITIES ROOM 119

#### Sport Administration

2:45 pm – 3:05 pm

Sarah B. Williams, UofL  
*The Impact of Scandal on NCAA Division I Women's Basketball Fan Consumption*

#### Entrepreneurship

3:05 pm – 3:25 pm

Shaun Paul Digan, UofL  
*The Influence of Prior Performance on the Type of Entrepreneurial Learning*

#### Educational Leadership & Organizational Development

3:25 pm – 3:45 pm

Christine Wiggins-Romesburg, UofL  
*The Hands that Feed Us: Developing Human Resources for the Invisible and Often Forgotten Workers that Harvest America's Produce*

## Oral Talk Session II – cont.

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### HUMANITIES ROOM 121

#### Biology

3:05 pm – 3:25 pm

Robert Skoïik, UofL

*Binding and Linkage of Endogenous Ligands to CDGSH Iron-Sulfur Domain (CISD) Proteins*

#### Pharmacology & Toxicology

3:25 pm – 3:45 pm

Jamie Young, UofL

*Effects of Early Life Chronic Exposure to Arsenic or Cadmium on the Development of Adult Metabolic Syndrome: Initial Characterization of Hepatic Changes*

### HUMANITIES ROOM 122

#### Translational Neuroscience

2:45 pm – 3:05 pm

Teodora Stoica, UofL

*Behavioral Relationships between Emotional Intelligence and Executive Systems*

#### Clinical Psychology

3:05 pm – 3:25 pm

Allison Midden, UofL

*Help-Seeking for Cognitive Impairment: The Role of Self-Compassion*

3:25 pm – 3:45 pm

Samantha C. Patton, UofL

*Involuntary Memories After Stressor Exposure: Contribution of Hormonal Status and Rumination in Women*

### HUMANITIES ROOM 123

#### Applied and Industrial Mathematics

2:45 pm – 3:05 pm

Ryan Gipson, UofL

*Irreducibility of Certain Binomials of the Form  $X^m - 1$  in the Monoid Domain  $F[X; M]$  Where  $M$  is a Submonoid of  $(\mathbb{Q}_+, +)$*

#### Applied Geography

3:05 pm – 3:25 pm

Nicholas E. Kolarik, UofL

*Crown Delineation Using Multispectral Point Cloud Data*

#### Chemical Engineering

3:25 pm – 3:45 pm

Marzieh Moradi, UofL

*Stabilization of Silsesquioxane Microparticles with Highly Charged Nanoparticles*

## Oral Talk Session III

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### CTRB ROOM 101

#### History

9:45 am – 10:05 am

Chris Herde, UofL

*Sarras and Jerusalem: Biblical Exegesis of the Legends of Arthur*

10:05 am – 10:25 am

Ash Braunecker, UofL

*From Purgatory to Community: University of Louisville's German Refugee Art Scholars*

10:25 am – 10:45 am

Cassy Jane Werking, University of Kentucky

*The Confederacy's North Star: Southern Intrigue on New York State's Canadian Border*

### CTRB ROOM 102

#### Industrial Engineering

9:45 am – 10:05 am

Hadi Miyanaji, UofL

*Process Development of Porcelain Ceramic Material with Binder Jetting Process for Dental Applications*

#### Electrical & Computer Engineering

10:05 am – 10:25 am

Mohamed Rashed, UofL

*Isomotive Dielectrophoresis Based Characterization of Chlamydomonas Cells*

#### Civil Engineering

10:25 am – 10:45 am

Jice Zeng, UofL

*Damage Identification and Damage Quantification Using Non-Contact Visual Sensor*

### CTRB ROOM 123

#### Chemical Engineering

10:05 am – 10:25 am

Anwar Hossain, UofL

*One-Pot Formation of Levulinic Acid Esters from Industrial Hemp*

10:25 am – 10:45 am

Mohammad Shahinur Rahaman, UofL

*Mechanistic Insights of the Acid-Catalyzed Synthesis of Diphenolic Acid*

### CTRB ROOM 124

#### Pharmaceutical Sciences

9:45 am – 10:05 am

Julia Annette Schulz, University of Kentucky

*A U251 Mouse Glioblastoma Model to Study New Therapeutic Strategies*

#### Pharmacology

10:05 am – 10:25 am

Kai Zhang, University of Kentucky

*Disrupting MCP-1/CCR2 Protects Developing Brain Against EtOH-Induced Damage*

#### Nutritional Sciences

10:25 am – 10:45 am

Jacqueline Leachman, University of Kentucky

*Young Adult Mice Exposed to Postnatal Neglect Display Downregulation of Transcription Factors in Visceral White Adipose Tissue*



## Oral Talk Session III – cont.

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### CTRB ROOM 125

#### Theatre Arts

9:45 am – 10:05 am

Mutiyat Ade-Salu, UofL

*Differences in the Use of Spirituality in  
Theatre Between Multi-Generation and First-  
Generation African-American Playwrights*

#### Pan-African Studies

10:05 am – 10:25 am

Alexis Crook, UofL

*Health Disparities Despite Genetic  
Conformity: The Problem with Race-Based  
Medicine*

#### Anthropology

10:25 am – 10:45 am

Mallory Cox, UofL

*Methods in Hemozoin Analysis*

## Oral Talk Session IV

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### CTRB ROOM 101

#### Sociology

12:30 pm – 12:50 pm

Ashley L. Vowels, University of Kentucky  
*Single Mothers' Experiences as College Students*

12:50 pm – 1:10 pm

Rachel Davis, University of Kentucky  
*Down the Rabbit Hole: The Red Pill as a Master Frame*

### CTRB ROOM 102

#### Experimental Psychology

12:30 pm – 12:50 pm

Lily Assgari, UofL  
*The Influence of Talker Variability on Context Effects in Speech Perception*

12:50 pm – 1:10 pm

William B. Corley, UofL  
*Effects of Stress and Sleep on Memory*

#### Counseling Psychology

1:10 pm – 1:30 pm

K. Chinwe Idigo, UofL  
*The ABCX Model of Family Resilience: A Frame for Unpacking Immigration and Adaptation among Nigerian-Americans*

### CTRB ROOM 123

#### Chemistry

12:30 pm – 12:50 pm

Ricardo Almir Angnes, UofL  
*Enantioselective Substrate Directable Heck Arylation of Cyclohexenols: Using Non-Covalent Interactions to Control Selectivity*

12:50 pm – 1:10 pm

Rene Ebule, UofL  
*Exploring the Reactivity of Novel Environmentally Benign Aprotic Hydrogen Halide Solutions with Unsaturated Systems.*

1:10 pm – 1:30 pm

Kelsey Kaht, UofL  
*Optimization of a 24/7 Electrochemical Sensor for Continuous, On-Site Analysis of Arsenic in Water*

### CTRB ROOM 124

#### Biological Sciences

12:30 pm – 12:50 pm

Connor Sears, University of Cincinnati  
*Illuminating the Effect of Varying Photoc Condition on the Blind Mexican Cavefish: A Transcriptomic Assessment*

#### Biology

12:50 pm – 1:10 pm

Brett Janis, UofL  
*Sweet Blood: Using Sugar to Dry and Store Blood at Room Temperature*

#### Biostatistics

1:10 pm – 1:30 pm

Soutik Ghosal, UofL  
*Generalized Spatial Temporal Additive Model and Its Application to Assessing Overuse of Antibiotics Drugs for URTI in Kentucky*

## Oral Talk Session IV – cont.

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CTRB ROOM 125

**Transdisciplinary Social Justice Research**

**12:30 pm – 1:30 pm**

Elizabeth Glass, Humanities, UofL

Tasha Golden, Public Health, UofL

Samantha Wright, Law School, UofL

*Panel on Transdisciplinary Social Justice Research at UofL*



## Oral Talk Session V

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### CTRB ROOM 101

#### Nursing

**1:30 pm – 1:50 pm**

Imelda Wright, UofL

*Exploring Safety-Related Practices in the Operating Room*

**1:50 pm – 2:10 pm**

Montray Smith, UofL

*Concept Analysis: Parental Stress and Its Impact on Families with Children with Special Healthcare Needs, in Disaster Medical Shelters*

#### Public Health

**2:10 pm – 2:30 pm**

Shiva Zargham, UofL

*A Curable Malady?: Burnout and Resiliency in Pediatric Emergency Medicine Fellows*

### CTRB ROOM 102

#### Educational Leadership & Organizational Development

**1:30 pm – 1:50 pm**

Terra Greenwell, UofL

*Deindustrializing School: The Implementation of Career Academies and Implications for School Leaders*

#### Education

**1:50 pm – 2:10 pm**

Travis Buchanan, University of Kentucky  
*Overcoming Imposter Syndrome*

#### Education Policy & Evaluation

**2:10 pm – 2:30 pm**

Laura Brown, University of Kentucky  
*PD: Upgrading Courses in Teams*

### CTRB ROOM 123

#### Chemistry

**1:30 pm – 1:50 pm**

Ram Krishna Hona, UofL

*Role of Ca in the Crystal Structure of CaSrFe<sub>2</sub>O<sub>6-δ</sub> and Its Electrical and Magnetic Properties*

**1:50 pm – 2:10 pm**

Greta Ren, Indiana University

*Detection of Designer Drugs from Plasma via Paper Spray Mass Spectrometry*

#### Biochemistry & Molecular Genetics

**2:10 pm – 2:30 pm**

Rumeysa Biyik-Sit, UofL

*Delineating the Metabolic and Non-Metabolic Requirements for Phosphoserine Aminotransferase (PSAT1) in Lung Cancer Progression*

### CTRB ROOM 124

#### Statistics

**1:30 pm – 1:50 pm**

Jiaying Weng, University of Kentucky  
*Fourier Transform Inverse Regression Estimators of the Central Subspaces*

#### Measurement & Evaluation

**1:50 pm – 2:10 pm**

Karrie Quenichet, UofL

*An Evaluation of Differences in Life Expectancy and Environmental Degradation by Income*

## Oral Talk Session V – cont.

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### CTRB ROOM 125

#### Communication

**1:30 pm – 1:50 pm**

Daeun Lee, Bellarmine University

*The Perceived Effectiveness of Executive Communication in A Corporate Setting among Management-Level Staff*

**1:50 pm – 2:10 pm**

Serena Daya, University of Kentucky

*Perceived Quality of Patient-Centered Communication of Emerging Adults with Mental Health Concerns Through the Lens of Stigma Management Communication*

#### Speech Language Pathology

**2:10 pm – 2:30 pm**

Sabrina D'Souza, UofL

*Infant Directed Speech in Latin American Immigrant Mothers*

## Poster Presentation Session I

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### HUMANITIES 2<sup>ND</sup> FLOOR

11:00 am – 12:00 pm

#### Computer Engineering & Computer Science

P1. Aliasghar Shahrjooihaghighi, UofL  
*Metabolomics Analysis for Biomarker Discovery*

#### Electrical & Computer Engineering

P2. Babajide Ayinde, UofL  
*Constrained Feature Learning and Data Representations*

#### Chemistry

P3. Tirtha Raj Sibakoti, UofL  
*Functionalization of the Gold Nanoparticles (Au NPs) with Aminooxy Thiol Ligands*

P4. Abdullah Al Mamun, UofL  
*Photochemical Study of Coenzyme-B12 Dependent Enzymes: Theoretical Study*

P5. Arghya Pratim Ghosh, UofL  
*Mechanism of Alkyl Transfer Reaction Involving Cob(I)Alamin by Alkyl Halide : SN2 or Radical Mechanism?*

P6. Pom Kharel, UofL  
*Effect of Rare-Earth Metal Oxide Nanoparticles on the Conductivity of Nanocrystalline Titanium Dioxide: An Electrical and Electrochemical Study*

P7. Faye Carvajal, UofL  
*NMR Studies of Secondary Structure and Compaction of Minielastin*

#### Physics

P8. Atanu Pathak, UofL  
*Benchmarking of Tracking Reconstruction Times in the ATLAS Experiment*

P9. Alaa Alfaiakawi, UofL  
*Structural and Magnetic Properties of a New Mott Insulator*

P10. Shadi Alnaanah, UofL  
*Evanescent Wave Cavity Ring Down Spectroscopy (EW-CRDS) as a Probe of Interfacial Process Under Potential Modulation*

#### Biology

P11. Jesse Rozsa, UofL  
*Characterization of ppal Single Mutant and Double Mutants*

#### Applied Geography

P12. Nathan Wright, UofL  
*Greater London in the 21st Century: Assessing Coastal Flooding Mitigation Preparedness and Regional Population Risk in the Face of Projected Sea-Level Rise*

#### Anthropology

P13. Amira Karaoud, UofL  
*Palestinian Refugees, Descendants Crisis in the Middle East: Syrian War, Discrimination, Unrecognized Identity and Immigration to Europe*

#### Social Work

P14. Mohammed Alkohaiz, UofL  
*Educational, Financial, and Social Needs of Families of Children with Multiple Disabilities in Saudi Arabia*

#### Clinical Psychology

P15. Ronald Smith, UofL  
*Screening Older Adults for Depressions: The Relationship Among Clinical Discipline Training, Barriers, Attitudes, Norms, And Perceived Behavioral Control*

## Poster Presentation Session II

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### HUMANITIES 2<sup>nd</sup> FLOOR

2:45 pm – 3:45 pm

#### Anatomical Science & Neurobiology

P1. Jason Gumbel, UofL

*Task-Specific Training Effects on At-Level Allodynia in a Rat Model of Spinal Cord Injury*

P2. Casey Steadman, UofL

*Locomotor Training alters Penile Reflex Responses in a Rat Model of Spinal Cord Injury*

#### Biology

P3. Lalu M. Vijayakrishnapillai, UofL

*Role of Ustilago maydis PTEN in Mating, and Virulence*

P4. Katherine Ray King, UofL

*Characterizing Epistemic Beliefs Among Biologists*

#### Chemistry

P5. Stacy Allen, UofL

*Size-Selective Electrophoretic Deposition of Au Nanoparticles Through the Electrooxidation of Hydroquinone and Varying Potential*

P6. Jay Sharma, UofL

*Electrochemical Determination of Surface Area-to-Volume Ratio for Metal Nanoparticle Analysis*

P7. Steve Cronin, UofL

*Metal-Assisted Ligand-Centered Electrocatalytic Hydrogen Evolution upon Reduction of a Bis(thiosemicarbazonato)Cu(II) Complex*

P8. Nina Saraei, UofL

*Variation of Water Cluster Motifs in Structurally Similar Ni(II) Complexes: Synthesis, Characterization, and Thermal Analyses*

P9. Dhruva Pattadar, UofL

*Determination of Bimetallic Alloy Nanoparticle Composition and Atomic Arrangement by Stripping Voltammetry*

#### Pharmacology & Toxicology

P10. Jordan Finch, UofL

*Effects of Tobacco Product-Derived Aldehydes on Circulating Angiogenic Cells – Implications for Endothelium Dysfunction and Repair*

P11. Sean Raph, UofL

*One Environmental Health: Cytotoxicity and Genotoxicity of Hexavalent Chromium in American Alligator (Alligator mississippiensis)*

#### Nursing

P12. Melissa Amraotkar, UofL

*The PATH Program and Self-care: Feasibility Study Among Older Female Alzheimer's Caregivers*

#### Public Health, Epidemiology

P13. Stacey L. Konkle, UofL

*Associations Between Volatile Organic Compound Exposures and Serum Lipids in the National Health and Nutrition Examination Survey (NHANES)*



## Poster Presentation Session II – cont.

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P14. Delvon Mattingly, UofL

*Prevalence and Correlates of Tobacco and  
ENDS Use among Young Adult, University  
Students of Louisville, Kentucky: the 2017  
SPOTS Survey*

### **Clinical Psychology**

P15. Nicholas Fogleman, UofL

*Emotion Regulation Accounts for the  
Relation Between Attention-  
Deficit/Hyperactivity Disorder and Peer  
Victimization*

## Poster Presentation Session III

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### CTRB 1ST FLOOR

9:45 am – 10:45 am

#### Mechanical Engineering

P1. Mohammad Mohaghegh Faghih, UofL  
*Red Cell Damage in Blood Contacting Devices*

P2. Waleed Alim, UofL  
*Comparing Two Finite Element Meshing Methodologies in High Resolution Simulation of Proximal Femur Fracture Due to a Fall to the Side*

#### Computer Engineering & Computer Science

P3. Mohamed Shehata, UofL  
*Role of Image and Clinical-based Biomarkers in Renal Transplant Assessment*

#### Computer Science

P4. David Johnson, UofL  
*Topic Modeling Analysis of Attacker Behavior Against a Cowrie Honeypot*

#### Chemistry

P5. Megan J. Toda, UofL  
*Photochemical Properties of Vitamin B12 Derivatives: Implications from TD-DFT Calculations*

#### Biochemistry & Molecular Genetics

P6. Rumeysa Biyik-Sit, UofL  
*Delineating the Metabolic and Non-Metabolic Requirements for Phosphoserine Aminotransferase (PSAT1) in Lung Cancer Progression*

#### Biology

P7. Susana Perez Martinez, UofL  
*Prenylation is Required for Establishment of Multicellularity and Cell Differentiation in *Physcomitrella patens**

P8. Hyun Jin Jung, UofL

*Study of the Biological Functions of Rab geranylgeranyltransferase in the Moss *Physcomitrella patens* (*P. patens*)*

#### Oral Biology

P9. Sonali Suresh Sapare, UofL  
*Characterization of Sustained Release Electrospun Fibers that Target *Porphyromonas gingivalis**

#### Public Health

P10. Kelsey Burton, UofL  
*Assessing the Factors Contributing to Sexual Concurrency and Increase in Sexual Partners Among African, Caribbean, and Black Women Living in Canada*

#### Public Health, Epidemiology

P11. Colette Davis, UofL  
*The S.H.A.P.E. Study, The Survey of Health and the Perceived Environment Study*

#### Nursing

P12. Montray Smith, UofL  
*Concept Analysis: Parental Stress and Its Impact on Families with Children with Special Healthcare Needs, in Disaster Medical Shelters*

#### Communication

P13. Katie Tressel, Bellarmine University  
*The Perceived Effectiveness of Executive Communication in a Corporate Setting among Management-Level Staff*

## Poster Presentation Session III – cont.

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### **Applied Geography**

P14. Garrett J. Seay, UofL

*Assessing the Curve Number Method for  
Modeling Urban Watershed Stormwater  
Runoff across Louisville, KY*

### **Education & Social Change: Literacy**

P15. Imari Hazelwood, Bellarmine University

*Experiences and Responses to  
Microaggression*

## Poster Presentation Session IV

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### CTRB 1ST FLOOR

12:30 pm – 1:30 pm

#### Biology

P1. Steven W. Bailey, UofL  
*Temporal Dynamics of Benthic Macroinvertebrate Communities in a Headwater Stream Reconstructed on Top of a Valley-Fill Created from Mountaintop Removal Mining at an Appalachian Coalfield in Southeastern Kentucky*

P2. Tiffany J. Brandt, UofL  
*Inhibitory and Reductive Effects of Burkholderia cenocepacia on Staphylococcus aureus Biofilms In Vitro*

#### Biomedical Research

P3. Hsuan Peng, University of Kentucky  
*Biodegradable Polymer to Enhance Cell Retention after Transplantation*

#### Biochemistry & Molecular Genetics

P4. Mark Vincent dela Cerna, UofL  
*Towards Understanding the Role of Protein Motion in Onco-Proteins that are Drug Targets*

#### Chemistry & Chemical Biology

P5. Christine Skaggs, Indiana University  
*LC-MS/MS Detects Urobilinoids from Feces in Fly Guts*

#### Chemistry

P6. Courtney Cruse, Indiana University  
*UV-Visible Spectroscopy and Gas Chromatography-Mass Spectrometry Analysis of Nitrated Explosives as a Prelude to Gas Chromatography-Vacuum Ultraviolet (VUV) Detection*

P7. Badri P. Mainali, UofL

*Size-Dependent Oxidation Behavior of Gold Nanoparticles Coated with Alkanethiol Self-Assembled Monolayers (SAMs)*

#### Applied Earth Sciences

P8. Igor Ogashawara, Indiana University  
*Sensing Cyanobacteria from Space: A Tool for Environmental Monitoring*

#### Pharmacology & Toxicology

P9. Jennifer Toyoda, UofL  
*Mechanisms of Hexavalent Chromium-induced Centriole Disengagement and Centrosome Amplification*

P10. Julie Gosney, UofL  
*Proteomics Reveals Novel Protein Associations with Early Endosomes in an EGF-Dependent Manner*

P11. Rachel Speer, UofL  
*Using Leatherback Sea Turtles (Dermochelys coriacea) as a Model Species for Metal Toxicology Research and Public Education in Vieques, Puerto Rico*

#### Nursing

P12. Nikki Chaffin, UofL  
*Arab Muslim Immigrant Perceptions of US Standard Psychosocial Care after Perinatal Loss*

P13. Portia Steele, UofL  
*Concept Analysis of Shared Decision Making*

#### Nutritional Sciences

P14. Brittany Rice, University of Kentucky  
*Exposure to PCB126 during the Nursing Period Significantly Impairs Early-Life Glucose Tolerance*

## Poster Presentation Session IV – cont.

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### **Stem Education**

P15. Mary Lamar, University of Kentucky  
*Students' Pre and Post Particulate Drawings  
for Dissolving Sodium Chloride*



## Poster Presentation Session V

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### CTRB 1ST FLOOR

1:30 pm – 2:30 pm

#### Agricultural Economics

P1. Gaukhar Kussainova, University of KY  
*Analysis of Price Transmission Among Conventional and Organic Markets of Avocados in the United States*

#### Business

P2. Jennifer Breeden, Sullivan University  
*The Business World vs. Academics: The Business Student's Career Dilemma*

#### Clinical Psychology

P3. Carrie A. French, Western KY University  
*The Impact of Exercising at a Self-Selected Intensity on Concurrent Academic Task Performance*

#### Communicative Disorders

P4. Kathryn McClure, UofL  
*A New Surgical Approach for O-C2 Fusion, Solving the Problem of Dysphagia*

P5. McKenzie Sexton, UofL  
*Feeding Behavior and the Child with Posterior Tongue-Tie: Comparison to Norms*

P6. Michael Frazure, UofL  
*Traumatic Brain Injury: Investigating Misconceptions Among Graduate Students in Physical Therapy, Occupational Therapy, and Speech-Language Pathology*

#### Nursing

P7. Hedaya Rateb Hina, UofL  
*Concept Analysis: Quality of Life*

#### Microbiology & Immunology

P8. John Perpich, UofL  
*Divergent Evolution of Di-Lysine Endoplasmic Reticulum Retention vs. Farnesylation Motif-Mediated Anchoring of AnkB to the Legionella-Containing Vacuolar Membrane*

#### Biochemistry & Molecular Genetics

P9. Robert Monsen, UofL  
*The hTERT Core Promoter Forms Three, All-Parallel G-quadruplexes*

P10. Avishek Majumder, UofL  
*Hyperhomocysteinemia-Mediated Endoplasmic Reticulum Stress in Skeletal Muscle Dysfunction via JNK/Pro-inflammatory Pathway*

P11. Alexis Vega, UofL  
*Functional Consequence of Association of PKM2 and PSAT1 on Their Inherent Enzymatic Activity*

#### Pharmaceutical Sciences

P12. Julia Annette Schulz, University of KY  
*A U251 Mouse Glioblastoma Model to Study New Therapeutic Strategies*

#### Pharmacology

P13. Kai Zhang, University of Kentucky  
*Disrupting MCP-1/CCR2 Protects Developing Brain Against EtOH-Induced Damage*

#### Pharmacology & Toxicology

P14. Haiyan Lu, UofL  
*Prolonged Particulate Chromate Exposure Does Not Inhibit Homologous Recombination Repair in Bowhead Whale Lung Cells*

## Poster Presentation Session V – cont.

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### Public Health, Epidemiology

P15. Lindsay K. Tompkins, UofL

*The Health and Exposure Histories of One  
Community Battling Environmental  
Discrimination*

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