November 2 - 3, 2018
University of North Georgia—Gainesville Campus

Keynote:

**Dr. Randal Abler**
Associate Director for the Vertically Integrated Projects (VIP) Program
Georgia Institute of Technology

11:30-1:00
Hugh Mills Educational Complex

Wifi Information: Log in: gurcwifi Password: Research18!
## Schedule at a Glance

### Friday, November 2, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>6:00—8:00 PM</td>
<td>Opening Reception</td>
<td>Student Center: Robinson Ballroom</td>
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### Saturday, November 3, 2018

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:30—8:00 AM</td>
<td>Check-in opens</td>
<td>Nesbitt Building Atrium</td>
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<tr>
<td>8:00—9:00 AM</td>
<td>Panel Session 1</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>9:00—11:30 AM</td>
<td>Resume Drop-In: Come get feedback on your resume or CV</td>
<td>Nesbitt 3101</td>
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<tr>
<td>9:10—10:10 AM</td>
<td>Panel Session 2</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>10:20—11:30 AM</td>
<td>Poster Session 1</td>
<td>Cleveland Ballroom, Nesbitt 3110</td>
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<tr>
<td>11:30 AM—1:00 PM</td>
<td>Keynote, Awards, and Lunch</td>
<td>Hugh Mills Complex</td>
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<tr>
<td>1:00—2:00 PM</td>
<td>Panel Session 3</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<td></td>
<td>GURC General Council Meeting</td>
<td>Nesbitt 3203</td>
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<tr>
<td>2:10—3:10 PM</td>
<td>Panel Session 4</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>3:20—4:30 PM</td>
<td>Poster Session 2</td>
<td>Cleveland Ballroom, Nesbitt 3110</td>
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### 2018 Georgia Undergraduate Research Collective Officers:
- President, Anastasia Lin, University of North Georgia
- Immediate Past-President, Doreen Sams, Georgia College & State University
- President-Elect, Kate Theobold, University of West Georgia
- Secretary, Kymberly Harris, Georgia Southern University

### 2018 GURC Local Planning Committee:
Panel Session 1: 8:00-9:00 AM

Multiculturalism in the Political Landscape | NESBITT 2201 | Moderator: Jillian Jay

Syrian Refugees: Boon or Bust?
John Blessing & Lana Goitia, Faculty Mentors: Dr. Dwight Wilson, Dr. Douglas Young, UNIVERSITY OF NORTH GEORGIA

Local Government’s Responsiveness: The Newton County Cemetery and Mosque Project
Lauren E. Kirk, Faculty Mentor: Dr. Florian Pohl, EMORY UNIVERSITY

Latinos and the Accessibility to Social Services
Rebecca Pool, Faculty Mentor: Dr. Diogo Pinheiro, UNIVERSITY OF NORTH GEORGIA

Al, AI, Oh!: Artificial Intelligence and Teleportation | NESBITT 2211 | Moderator: Anthony Ponizhay

eSense 2.0: Modeling Biomimetic Predation with Multi-agent Multi-team Distributed Artificial Intelligence
Derek Martin, Faculty Mentor: Dr. D. Michael Franklin, KENNESAW STATE UNIVERSITY

Becoming Human: The Darwinian Evolution of AI
Alexander Aviles, Faculty Mentor: Dr. Ian Afflerbach, UNIVERSITY OF NORTH GEORGIA

“Classical” Teleportation
Samuel Greenberg, Faculty Mentor: Dr. Bryson Payne, UNIVERSITY OF NORTH GEORGIA

Conservation at Home and Abroad | NESBITT 1201 | Moderator: Alex Pham

Localized environmental variables affecting southern Appalachian salamander populations
Jasmine Williamson, Faculty Mentor: Dr. Jessica Patterson, UNIVERSITY OF NORTH GEORGIA

Conservation Decision Support System Design for West Indian Manatee Habitat Suitability and Protection
Ashleigh Nicole Wilson & Jeffery Lee Robertson, Faculty Mentor: Dr. Sudhanshu Panda, UNIVERSITY OF NORTH GEORGIA

On the Phylogeography of the Southeastern species of the genus Dalea l. (fabaceae) using a phylogenetic approach
Joshua B. Fuller, Destiny E. Moore, Faculty Mentors: Dr. Clarke Miller, Dr. James T. Diggs, UNIVERSITY OF NORTH GEORGIA

Reason and Revolution | NESBITT 1211 | Moderator: Thomas Hayes

Reason vs. truth: How the enlightenment and romanticism effected the Victorian Occult
Jessica Brazinski, Faculty Mentor: Dr. Phillip Guerty, UNIVERSITY OF NORTH GEORGIA

100 Kilometers to Freedom: Women’s Stories of Escape During the 1956 Hungarian Revolution
Cameron Mitchell, Faculty Mentor: Dr. Katharine Kennedy, AGNES SCOTT COLLEGE

Student Success in Education | NESBITT 3104 | Moderator: Shaelyn Comiskey

SPARK Mentoring Program
Chika Nwosu & Hailey Suarez, GORDON STATE COLLEGE

Critical School Policy Review
Amber Leggett, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

The Hybrid Newsroom: Using Online Platforms to Improve Student Learning
Jennifer Harris, Faculty Mentor: Prof. Holly J. Morris, UNIVERSITY OF NORTH GEORGIA

Resume/CV Drop in: 9:00—11:30 AM

Dr. Edward Lai, Associate Director, Career Services, UNG
Nesbitt 3101
Panel Session 2: 9:10-10:10 AM

Exploring Realities in Fiction | NESBITT 2201 | Moderator: Woody Depew

Faulkner & McCullers
Murphy Ledbetter, Faculty Mentor: Dr. Rebecca Harrison, UNIVERSITY OF WEST GEORGIA

Learning to Read: Reality, Fiction, and Reading in the Female Quixote
Zachary McCollum, Faculty Mentor: Dr. Leigh Dillard, UNIVERSITY OF NORTH GEORGIA

Naturalism Marred by Idealism: The Literary Failures of Hamlin Garland
William Hollis, Faculty Mentor: Dr. Terry Easton, UNIVERSITY OF NORTH GEORGIA

You Give Me Fever: Thermal Transport and Heat Transfer | NESBITT 2211 | Moderator: Thomas Hayes

Thermal Transport in Actinide Oxides with Interstitial Defects
Katherine Mitchell & Alex Resnick, Faculty Mentors: Dr. Jungkyu Park, Dr. Tien Yee, Dr. Andrew Hummel, Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

Heat Transfer Comparison of Varied Pebble Sizes and Packing Arrangements in a Pebble-Bed Reactor
Julian Spangler, Faculty Mentor: Dr. Tien Yee, KENNESAW STATE UNIVERSITY

Thermal Transport in Actinide Oxides using Phonon Density of States Calculation
Alex Resnick & Katherine Mitchell, Faculty Mentors: Dr. Jungkyu Park, Dr. Tien Yee, Dr. Andrew Hummel, Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

Social Influences on Development | NESBITT 1201 | Moderator: John Blessing

Institutional Deprivation and the Effects of Development
Elena Mayfield, Faculty Mentor: Dr. Jim Dillon, UNIVERSITY OF WEST GEORGIA

Girls Education Around the World: Exploring Intervention Methods of Nonprofits in Israel, Thailand, Cambodia, and Sri Lanka used to increase Girls Education
Jillian E. Jay & Kiera Y. Chan, Faculty Mentor: Dr. Jenny Vermilya, UNIVERSITY OF NORTH GEORGIA

Parental Gender Beliefs and Attitudes Involving Child’s Toy Play
Madeline Drives, Amelia Dubose, Melanie Gillespie, & Taylor Maddox, Faculty Mentor: Dr. Tsu-Ming Chiang, GEORGIA COLLEGE AND STATE UNIVERSITY

We Dig Science: Ecosystem and Soil Science | NESBITT 1211 | Moderator: Alex Pham

Assessing Soil Redox Conditions Using IRIS Tubes in a Central Georgia Wetland
Cameron Skinner, Faculty Mentors: Dr. Allison Rick VandeVoort, Dr. Christine Mutiti, Dr. Samuel Mutiti, GEORGIA COLLEGE AND STATE UNIVERSITY

Phosphate Desorption Across Particle Size After Sustainable Agriculture Practices
Zachary Davis, Faculty Mentors: Drs. Allison Rick VandeVoort, Samuel Mutiti, GEORGIA COLLEGE AND STATE UNIVERSITY

Imaging the Subsurface: The Effect of Logjams on Groundwater-Surface Water Exchange
Teodora Mitroi, Megan Doughty, & Jackie Randall, Faculty Mentor: Dr. Kamini Singha, GEORGIA STATE UNIVERSITY & COLORADO SCHOOL OF MINES

Education and Development | NESBITT 1217 | Moderator: Elizabeth Young

Do Teacher and Student Interactions Affect Class Climate?
Angela Norris, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

Impact of American Sign Language on Early Development
Haley W. Gilreath, Faculty Mentor: Dr. Donna Gessell, UNIVERSITY OF NORTH GEORGIA

Behavior Specific Praise and a Student on the Autism Spectrum
Gabrielle Brueck, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

Wifi Information: Log in: gurcwifi Password: Research18!
Panel Session 2: 9:10-10:10 AM

Self-Efficacy and Self Esteem | NESBITT 3104 | Moderator: Lana Goitia

The Effects of Dog Ownership on Self-Efficacy Levels
Juliana Oleksy, Faculty Mentor: Dr. Diogo Pinheiro, UNIVERSITY OF NORTH GEORGIA

Social Media Representation and Self-Esteem
Charlton Lyons & Sevon Baxley, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY

Technology and Human Well-Being
Charles E. Bartlett, III, Tiona Doctor, & Aubrey L. Moore II, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY

POSTER SESSION 1
CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

1. A Comprehensive Study of Motor Imagery EEG-Based Classification Using Computational Analysis
Justin McCorkle & Andrew Kalaani, Faculty Mentor: Dr. Rami Haddad, GEORGIA SOUTHERN UNIVERSITY

2. Bioinformatic analysis of Insect Iridescent Virus (IIV6) proposes novel open reading frames and supports previously described putative protein products
Amanda D. Mileham, Faculty Mentor: Dr. Amanda L.J. Duffus, GORDON STATE COLLEGE

3. The Zeeman Effect and Its Potential in Molecular Spectroscopy
Megan L. Climer, Faculty Mentor: Dr. Dereth J Drake, VALDOSTA STATE UNIVERSITY

4. Soccer Ball Trajectory Optimization
Andrew Rezendez & Shafat Mubin, Faculty Mentor: Dr. Shafat Mubin, VALDOSTA STATE UNIVERSITY

5. Sustainability of an Established CURE Curriculum at Primarily Undergraduate Institutions
Nicole Scheuermann & Sue Ellen DeChenne-Peters, Faculty Mentor: Dr. Sue Ellen DeChenne-Peters, GEORGIA SOUTHERN UNIVERSITY

6. Influence of human disturbance and marsh vegetation on fiddler crab retreat behavior
Forrest Collins, Faculty Mentor: Dr. Michele Guidone, GEORGIA SOUTHERN UNIVERSITY

7. Cross-seasonal survey of reptile diversity and distribution between varying environments in Smithgall Woods State Park, White County, Georgia
Cory E. Duckworth, Faculty Mentor: Dr. Jessica Patterson, UNIVERSITY OF NORTH GEORGIA

8. The Mechanism of Protein Kinase C in relation to ATPase family AAA-domain Containing Protein 3A in Head and Neck Squamous Cell Carcinoma
Ron Chemmalakuzhy, Faculty Mentor: Dr. Yong Teng, AUGUSTA UNIVERSITY

9. Behavior Responses in the Inclusion Setting
Alexandria Kesselring & Casey Carroll, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

10. Dimensioning and Modeling of a Molten Salt Reactor
Theron Crockett, Faculty Mentors: Dr. Tien Mun Yee, Dr. Jungkyu Park, Dr. Andrew Hummel, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

11. Jungle Slang
Andres Osorio, Faculty Mentor: Prof. Heather Foster, UNIVERSITY OF NORTH GEORGIA

12. Empathy and Sympathy in Response to Social and Physical Pain
Alexandra Withrow, Faculty Mentor: Dr. Stephen Smith, UNIVERSITY OF NORTH GEORGIA

13. Politicking Homelessness in Atlanta: How does Atlanta Responds to its Homeless Population?
Aliyah Winfrey, Faculty Mentor: Dr. Faidra Papavasiliouv, GEORGIA STATE UNIVERSITY

Wifi Information: Log in: gurcwifi Password: Research18!
POSTER SESSION 1, continued
CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

   Hannah Turner & Mary Harrell, Faculty Mentor: Dr. Lydia Ray, COLUMBUS STATE UNIVERSITY

15. The Effectiveness of “Instructional Conversation” Pedagogy in Education for Multilingual Students
   Lauryn Waters, Faculty Mentor: Dr. Paula J. Mellom, UNIVERSITY OF GEORGIA

   Tinaye Gibbons, Faculty Mentor: Prof. Keri Adams, UNIVERSITY OF WEST GEORGIA

17. Divergent Gene Expression of Hoxb3b in Teleost Fishes is Due to Divergence of Upstream Cis-Regulatory Elements
   Erin Povolny, Faculty Mentor: Dr. Adam Davis, UNIVERSITY OF NORTH GEORGIA

18. Extended-Spectrum Beta-Lactamase Producing Enterobacteriaceae in North Georgia Waters
   Nou Moua, Faculty Mentor: Dr. Swapna Bhat, Dr. Jeanelle Morgan, UNIVERSITY OF NORTH GEORGIA

19. Hierarchy of Medicine in Elder Cambodian Refugees
   Johanna Mercurio, Faculty Mentor: Dr. Denise C. Lewis, UNIVERSITY OF GEORGIA

20. Falling Down, Falling Apart, and Finding Home in Reservation Blues
    Castiel Dixon, Faculty Mentor: Dr. Terry Easton, UNIVERSITY OF NORTH GEORGIA

21. Cigarette Smoke Exposure Upregulation of PGE2 Expression in the Bladder
    Jessica Nix, Faculty Mentor: Dr. Shannon Kispert, UNIVERSITY OF NORTH GEORGIA

22. “Make Me a Sandwich” - “Poof, You’re a Sandwich!”: Ditransitive Syntax in the Brain
    Haley Shea J. Barfield, Faculty Mentor: Dr. Troy Smith, UNIVERSITY OF NORTH GEORGIA

23. Using 3D Printing to Optimize Research in X-ray Fluorescence Spectroscopy
    Mark Leggiero, Faculty Mentor: Dr. Sarah Formica, UNIVERSITY OF NORTH GEORGIA

24. Identification of Scn1a, Scn2a, and Scn8a in Mammalian Sexual Structures
    Garis A. Grant & Rhea A. Thomas, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE

25. Using Cryptocurrencies to Hide Assets: Special Considerations in Divorce, Tax Evasion, and Money Laundering
    Shaelyn Comiskey, Faculty Mentor: Dr. Bryson R. Payne, UNIVERSITY OF NORTH GEORGIA

26. Monte Carlo Simulation of a Geiger Counter, Gamma-Ray Sources and Shielding
    Luke Appling, Mayur Menon, & David Wall, Faculty Mentors: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Mun Yee, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

27. Unravelling the evolutionary history and future prospects in a biodiversity hotspot: An integrated approach to species delimitation in the ringneck snake Diadophis punctatus
    Emily Miles & Polly Strott, Faculty Mentor: Dr. Frank Fontanella, UNIVERSITY OF WEST GEORGIA

28. Are the elf2-α Homologue and Putative Tyrosine Kinase Proteins of Ranaviruses Suitable Targets for Phylogenetic Reconstruction?
    Ami J. Davis, Faculty Mentor: Dr. Amanda L.J. Duffus, GORDON STATE COLLEGE

29. Identifying the presence of Scn4a, Scn5a, and Scn9a in the Mammalian Clitoris
    Rhea Thomas & Garis Grant, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE

30. Improving Shelf-Life of Fruits Using Thermography
    Fahad Fahad & Adam Kumar Hudlow, Faculty Mentor: Dr. Sathish Kumar Gurupatham, KENNESAW STATE UNIVERSITY

31. Bugs in Bugs: Analysis of microbiota of Trichnoplusia ni Larvae
    Susan Ha, Faculty Mentors: Dr. Swapna Bhat, Dr. Evan Lampert, Dr. Jeanelle Morgan, UNIVERSITY OF NORTH GEORGIA

Wifi Information: Log in: gurcwifi Password: Research18!
POSTER SESSION 1, continued
CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

33. On The Existence Of An Arbitrarily Large Number Of Generators For The Presentation Ideal Of a Semigroup Ring
   Arun Suresh, Faculty Mentor: Dr. Florian Enescu, GEORGIA STATE UNIVERSITY

34. Fraud and Frill: Women and Spiritualism in Victorian America
   Lesley Jones, Faculty Mentor: Dr. Phillip Guerty, UNIVERSITY OF NORTH GEORGIA

35. Changes in Female Humpback Whale (Megaptera novaeangliae) Surface Feeding Behavior Through Stages of Maternal Care and Reproduction
   Eman Khwaja, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE

36. Media and the Sexualization of Young Girls
   Corey Marshall, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY

37. Does the Quality or Quantity of Friendships Improve Emotions?
   Cassidy Hannah, Faculty Mentors: Dr. Matthew Stapleton, Dr. Hui Zhang, UNIVERSITY OF NORTH GEORGIA

38. Stereochemical synthesis of Lugdunin – An antimicrobial cyclic peptide
   Shivam Patel, Faculty Mentors: Dr. Shailesh Ambre, Patricia Todebush, UNIVERSITY OF NORTH GEORGIA

39. Mars Environmental Module- The Aura of The Red Planet
   Nisha Kurian, Faculty Mentors: Dr. Tae Lee, Dr. Sairam Tangirala, GEORGIA GWINNETT COLLEGE

40. Programming a TeachMover Robot Arm
   Joel Garcia, Faculty Mentors: Dr. Sairm Tangirala, Dr. Sae Tong Lee, GEORGIA GWINNETT COLLEGE

41. Finding The Binding Site of Adenovirus E4 11K and P-body Component DDX6
   Katherine Elizabeth Moen, Faculty Mentor: Dr. Kasey Karen, GEORGIA COLLEGE AND STATE UNIVERSITY

11:30 AM—12:30 PM: Keynote & Luncheon, Hugh Mills Physical Education Complex

Panel Session 3: 1:00 PM-2:00 PM

Race, Religion, and Language in the Americas | NESBITT 2201 | Moderator: Castiel Dixon

The Racialization of Muslims in America and Its Impact on Young American Muslims
   Mariam Hassoun, Faculty Mentor: Florian Pohl, EMORY UNIVERSITY

Racial Injustice in Writing Instruction
   Amanda Smith, Faculty Mentor: Dr. Mollie Barnes, Dr. Sarah Swofford, UNIVERSITY OF SOUTH CAROLINA BEAUFORT

Indigenous Languages of Mexico, Now and to the Future
   Emily Werner, Faculty Mentor: Dr. Maria Calatayud, UNIVERSITY OF NORTH GEORGIA

Pursuing Resistance: Ranavirus Research and Thymic Cell Reprogramming | NESBITT 2211 | Moderator: Alaina Whitmore

Analyzing Phylogenetic Relationships Among Ranaviruses: Myristilated Membrane Protein And Other Potential Alternative to Major Capsid Protein
   Riley B. Fuller, Faculty Mentor: Dr. Amanda L. J. Duffus, GORDON STATE COLLEGE

Alternative genes for exploring Ranavirus phyllogenetics: Four core genes compared to the major capsid protein and the whole genome.
   Abigale Garner, Faculty Mentor: Dr. Amanda L. J. Duffus, GORDON STATE COLLEGE

Thymic Epithelial Cell Reprogramming and Co-Culture with T-Cell Progenitors
   Isabelle Riddle, Faculty Mentor: Dr. Nancy Manley, UNIVERSITY OF GEORGIA
Panel Session 3: 1:00 PM-2:00 PM, continued

Disseminating Science  | NESBITT 1201  | Moderator: Mark Leggiero

An Overview of Molten Salt Reactors – History, Design, and Future Prospect
Duncan Bohannon & Chase Casher, Faculty Mentor: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Mun Yee, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

Engaging the Public through Science Festivals,
Anthony Sacchitello & Macey Jarrard, Faculty Mentor: Dr. Gina Childers, UNIVERSITY OF NORTH GEORGIA

An Experimental Examination on Techniques to Mitigate the Spread of Misinformation on Social Media Net
Thomas Hayes, Faculty Mentor: Dr. Richelle Oakley, UNIVERSITY OF NORTH GEORGIA

Intersections of Business, Computing, and Manufacturing  | NESBITT 1211  | Moderator: Woody Depew

The State of the Video Game Industry and Potential Implications of Current Business Practices
Stephen Friend, Faculty Mentor: Dr. Frank Holiwski, SOUTH GEORGIA STATE UNIVERSITY

Strategies for Small U.S. Manufacturers to Defend Home Markets from International Competition
Gabrielle Chan, Faculty Mentor: Dr. Edward O’Donnell, COLUMBUS STATE UNIVERSITY


Mixing Studies with Tracer of a Water Treatment Storage Tank Using Computational Fluid Dynamics
Pete Daniel Williams, Faculty Mentor: Dr. Tien Yee, KENNESAW STATE UNIVERSITY

Study of Differential Diffusion Using Backward Trajectories in Turbulence,
Adyasha Mohanty, Faculty Mentor: Dr. P.K. Yeung, GEORGIA INSTITUTE OF TECHNOLOGY

Novel, Portable and Low-cost Cosmic Ray Muon Telescope,
Jessica Eskew & Sawaiz Syed, Faculty Mentor: Xiaochun He, GEORGIA STATE UNIVERSITY

GURC’s Artist Panel  | NESBITT 3104  | Moderator: John Blessing

The New Lens of Normality: An Exploration of Queer Representation in Fairytales,
Dylan C. Carter, Faculty Mentor: Dr. Angela Farr-Schiller, KENNESAW STATE UNIVERSITY

Art Inspired by Eastern Box Research for UNG Gainesville’s Sciences, Engineering, and Technology Building
Aida Alarcon & Kati Hornick, Faculty Mentor: Prof. Heather M. Foster, UNIVERSITY OF NORTH GEORGIA

Panel Session 4: 2:10 PM-3:10 PM

New Research to Combat Parkinson’s, Heart Defects, and Pancreatitis  | NESBITT 2201  | Moderator: Shea Barfield

Nox1-evoked ROS causes Fibrosis in Caerulein-Induced Chronic Pancreatitis through the AKT pathway
Ananya Chakraborty, Faculty Mentor: Dr. Maria Sabbatini, AUGUSTA UNIVERSITY

Identification of New Genes in Congenital Heart Defects
Naomi Siddiquee, Faculty Mentor: Brian Cummings, UNIVERSITY OF GEORGIA

Rapid Visuomotor Integration as a Window into Multisensory Processing
Margaret Schrayer, Faculty Mentor: Dr. Tarkeshwar Singh, UNIVERSITY OF GEORGIA
Panel Session 4: 2:10 PM-3:10 PM  continued

Innovations in Conservation and Disease Research | NESBITT 2211 | Moderator: Alexis O’Neal

Determining Illegal Activity Hotspots to Better Manage Conservation Strategies
Taylor Kirby, Faculty Mentor: Dr. Jessica Hartel, UNIVERSITY OF NORTH GEORGIA

The effect of natural products like ginger, garlic, blueberries, turmeric, grapefruit and ashwagandha (herb) on the growth of triple negative breast cancer cells,
Sidhika Sharma, Faculty Mentor: Ramneet Kaur, UNIVERSITY OF NORTH GEORGIA

Mechanisms mediating the pro-fibrotic effects of estradiol
Haley Fulton, Faculty Mentor: Carol Feghali Bostwick, MEDICAL UNIVERSITY OF SOUTH CAROLINA

Influencing Attitude and Efficacy | NESBITT 1201 | Moderator: Lana Goitia

A Cross Cultural Examination of Attitudes about Ancestry and Culture between Georgia USA and Scotland
Samantha Leelyn Richey & Natalie Anne Macy, Faculty Mentor: Dr. Stephen M. Smith, UNIVERSITY OF NORTH GEORGIA

Follow the Leader: Edward R. Murrow’s See It Now and Contemporary Influencer Marketing
Sean Eagan, Faculty Mentor: Dr. David Resha, EMORY UNIVERSITY

Effectiveness of Socratic Seminar as a Teaching Method for Undergraduate Students
David Brown & Ian Matthew, Faculty Mentor: Dr. Jessica Traylor, GORDON STATE COLLEGE

Exploring Nuclear Reactors | NESBITT 1211 | Moderator: Alaina Whitmore

Numerical Modeling of Fluid Flow in a Molten Salt Reactor
Alisa Machiwalla & Carnell Tate, Faculty Mentors: Dr. Tien Yee, Dr. Jungkyu Park, Dr. Andrew Hummel, and Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

An Overview of Pebble-Bed Reactors
Paul Schwan, Julian Spangler, & Isaac Naupa, Faculty Mentors: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Yee, and Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

MCNP Modeling of a Molten Salt Reactor
David Wall, Faculty Mentor: Dr. Eduardo Farfan, KENNESAW STATE UNIVERSITY

Seeking Justice | NESBITT 1217 | Moderator: Woody Depew

The Use of Electronic Monitoring as an Alternative to Incarceration
Gillian Shea Baker, Faculty Mentor: Dr. Stuart Batchelder, UNIVERSITY OF NORTH GEORGIA

Approaches to Justice
Katie Pleiss, Faculty Mentor: Sarah Higinbotham, EMORY UNIVERSITY

Lexical harm reduction: Language perpetuates stigma related to substance use disorder
Erica Darragh, Faculty Mentor: Dr. Clayton Teem, UNIVERSITY OF NORTH GEORGIA

What’s Next? Preparing for Publication | NESBITT 3104

Dr. Leigh Dillard, Editor-In-Chief, Papers & Publications, UNIVERSITY OF NORTH GEORGIA

Ms. Allison Galloup, Digital Content Editor, Papers & Publications, UNIVERSITY OF NORTH GEORGIA

Dr. Anastasia Lin, Director, Center for Undergraduate Research and Creative Activities, UNIVERSITY OF NORTH GEORGIA

Wifi Information: Log in: gurcwifi Password: Research18!
POSTER SESSION 2
CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm– 4:30 pm

1. The Effects of Position and Length on Cue Saliency in Article-Noun Agreement of an Artificial Language
   Niah Thomas & Brittany Scanameo, Faculty Mentor: Dr. Daniel Walter, EMORY UNIVERSITY

2. Honey Bee Pollen Packing Mechanics
   Oliver Howington & Marguerite Matherne, Faculty Mentor: Dr. David Hu, UNIVERSITY OF NORTH GEORGIA & GEORGIA INSTITUTE OF TECHNOLOGY

3. Child Maltreatment and Substance Use: A Systematic Review and Meta-Analysis
   Jessica Thompson, Faculty Mentor: Dr. Assaf Oshri, UNIVERSITY OF GEORGIA

4. A Flexible Model for Investigating the Properties of Starspots: Comparison of Model Predictions to Observed Data
   Amanda Ash, Faculty Mentor: Dr. Gregory Feiden, UNIVERSITY OF NORTH GEORGIA

5. Irregularities in Young Stellar Models: Are Starspots to Blame?
   Jessica Hamilton, Faculty Mentor: Dr. Gregory Feiden, UNIVERSITY OF NORTH GEORGIA

6. Evaluating the Effects of Microenvironment Pro-inflammatory Cytokines on Breast Cancer Metastasis
   Megan Williams, Faculty Mentor: Dr. Cheryl Gomillion, UNIVERSITY OF GEORGIA

7. Transient Conductive Heat Transfer Analysis of Materials Subjected to Rapid Heating or Cooling
   Aidan Burleson & Spencer Shortt, Faculty Mentor: Dr. Hasitha Mahabaduge, GEORGIA COLLEGE AND STATE UNIVERSITY

8. Precision Top Quark Mass Extraction at the Large Hadron Collider
   Henry Sanders & Seth Iwan, Faculty Mentor: Dr. Sonny Mantry, UNIVERSITY OF NORTH GEORGIA

9. Gas Kinetic Model for Argon in a Commercial Plasm System
   Zachary Barton, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

10. Embodied Composition Pedagogy
    Amanda Ayers, Faculty Mentor: Dr. Molly Daniel, UNIVERSITY OF NORTH GEORGIA

11. The Impact of Obesity on Ingestion-induced Hippocampal Arc Expression in Male Rats
    Karan Sharma, Faculty Mentor: Dr. Marise Parent, GEORGIA STATE UNIVERSITY

12. Data Analytics Using Data From Accelerometers Mounted on a Wi-Fi-Based Remotely Controlled Model Car
    Adriana Amyette, Faculty Mentors: Dr. Sairam Tangirala, Dr. Sae Tong Lee, GEORGIA GWINETT COLLEGE

    Faith M. Rankin & Brendyn L. Melugin, Faculty Mentor: Dr. Tyler L. Harrison, UNIVERSITY OF NORTH GEORGIA

14. Characteristics of Bonding between Genders in Same-Sex Friendships
    Nombeko Marshall, Faculty Mentor: Dr. Medha Talpade, CLARK ATLANTA UNIVERSITY

15. Identifying Ancient River Channels and Faces using Ground Penetrating Radar: Brunswick, Georgia, USA
    Ken Taylor, Faculty Mentor: Dr. Christopher Seminack, UNIVERSITY OF NORTH GEORGIA

16. Assessment of Efficacy and Effectiveness of Antiseptic Mouthwash Products against Oral Microbiota
    Angel Shue & Elizabeth G. Miranda-ayala, Faculty Mentor: Dr. Davison T. Sangweme, UNIVERSITY OF NORTH GEORGIA

17. How College Student’s View Three Strikes Laws
    Danielle Gregoire, UNIVERSITY OF NORTH GEORGIA

18. Putative Targets of the PP2A Serine/Threonine Phosphatase Complex In Regulating Dendritic Morphology
    Andre Golshir, Faculty Mentor: Dr. Daniel N. Cox, GEORGIA STATE UNIVERSITY

19. Antibiotic-Producing Bacteria Associated with Sharks of St. Helena and Port Royal Sound
    Daniel Conrad, Faculty Mentors: Dr. Diego L. Gil-Agudelo and Dr. Kim B. Ritchie, UNIVERSITY OF SOUTH CAROLINA BEAUFORT

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POSTER SESSION 2, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm – 4:30 pm

21. Bugs in Bugs
   Josemaria Garcia, Faculty Mentor: Dr. Evan Lampert, UNIVERSITY OF NORTH GEORGIA

22. An Introduction to Systematic Reviews: Effects of Green Tea Polyphenols on Diet-Induced Obesity and Intestinal Microbiota
   Allison Georgescu, Faculty Mentor: Dr. Roberta Attanasio, GEORGIA STATE UNIVERSITY

23. Influences of native culture on Southeast Asian adolescent refugees and its accuracy in diagnosing trauma
   Vidisha Gangidi, Faculty Mentor: Dr. Denise C. Lewis, UNIVERSITY OF GEORGIA

24. Older Adults’ Perceptions of Science and Engineering in Appalachia
   Hannah Harris, Faculty Mentors: Dr. Gina Childers, UNIVERSITY OF NORTH GEORGIA

25. Diversity and Abundance of Invasive Aedes albopictus, Other Mosquitoes (Diptera: Culicidae), and Arthropods in North Georgia
   Mason Carlisle & Madison Embrick, Faculty Mentor: Dr. Evan Lampert and Dr. Davison Sangweme, UNIVERSITY OF NORTH GEORGIA

26. Effects of temperature during non-breeding months on size of three species of sparrow
   Harley N. Hunt, Faculty Mentor: Dr. Katie Stumpf, GEORGIA COLLEGE AND STATE UNIVERSITY

27. Terminal die-back, the result of a new Neofusicoccum species
   Courtney Cameron, Faculty Mentor: Dr. Marin Brewer, UNIVERSITY OF GEORGIA

28. Perceptions and Performance of Students
   Jake Lovvorn, Blaney Serrano, & Tyler Washington, Faculty Mentor: Julie Delose, YOUNG HARRIS COLLEGE

29. Let Me Down Easy
   Heather Dotson, Faculty Mentors: Dr. Diane Cook, UNIVERSITY OF NORTH GEORGIA

30. Introducing Renewable Energy Through Community-based Engaged Learning
   Nick Palmer, Faculty Mentor: Dr. Hasitha Mahabaduge, GEORGIA COLLEGE AND STATE UNIVERSITY

31. Identification of Proteins that Regulate CRISPR DNA Uptake of Pyrococcus furiosus
   Landon Clark, Faculty Mentor: Dr. Michael Terns, UNIVERSITY OF GEORGIA

32. Synthesis of Tumor-Associated Carbohydrates (TACs) using Lewis Acid Catalysts
   Rania Saleb, Faculty Mentors: Dr. Shailesh Ambre & Dr. Patricia Toebush, UNIVERSITY OF NORTH GEORGIA

33. Urban and Rural Chinese Children's Anticipated Moral Emotions
   Dalia Cuevas, Faculty Mentors: Dr. Matthew Stapleton & Dr. Hui Zhang, UNIVERSITY OF NORTH GEORGIA

34. Degradation of Cellulose through Hydrogen Metabolism and Electron Bifurcation
   Madison Prchal, Faculty Mentor: Prof. Eleanor Schut, UNIVERSITY OF NORTH GEORGIA

35. A Survey of Aquatic Macro- and Micro-invertebrates of Vernal Granite Outcrop Pools in North Georgia
   Joshua B. Fuller, Ana G. Ferreira, & Cruz Mejia-Rodriguez, Faculty Mentor: Prof. Margi Flood, UNIVERSITY OF NORTH GEORGIA

36. Effects of Vitamin D Receptor Knockout, Vitamin D Deficiency, and Diabetes on Corneal Epithelial Nerve Density
   Sarah Vick, Faculty Mentor: Dr. Mitchell Watsky, Dr. Xiaowen Lu, AUGUSTA UNIVERSITY

37. Home Range and Habitat Use of the Eastern Box Turtle
   Amber Rittgers, Samantha Shea, & Kayla Bonadie, Faculty Mentor: Dr. Natalie Hyslop & Dr. Jennifer Mook, UNIVERSITY OF NORTH GEORGIA

38. Data Exploration and Analysis for the Hemingway Measure of Adult Connectedness
   Gildardo Bautista-Maya, Faculty Mentor: Dr. Ping Ye, Dr. Diane Cook, UNIVERSITY OF NORTH GEORGIA

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POSTER SESSION 2, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm – 4:30 pm

39. A Comparison of Two Automated Bat-Call Classifying Software Programs
   Sara Robertson, Faculty Mentor: Dr. Michael Bender, UNIVERSITY OF NORTH GEORGIA

40. Library Synthesis of antimicrobial peptide targeting Staphylococcus aureus
   Jonathan Bridges, Faculty Mentor: Dr. Shailesh Ambre & Dr. Patricia Todebush, UNIVERSITY OF NORTH GEORGIA

41. Computational Techniques to Analyze the Nitrogen Second Positive System
   Bakari Bethea, Faculty Mentor: Dr. Dereth J Drake, VALDOSTA STATE UNIVERSITY

42. The Sublethal Effects and Bioaccumulation of 17a-Ethynyl Estradiol in Lumbriculus variegatus
   Kikelomo Ogunsemore, Faculty Mentor: Dr. Faith Wiley, AUGUSTA UNIVERSITY

43. Radio Astronomy and Its Use in Molecular Spectroscopy
   Savanna Burks, Faculty Mentor: Dereth Drake, VALDOSTA STATE UNIVERSITY

Special thanks to Elaine Walton, Mandy Losito, Thomas Hayes, and Allison Galloup, along with the UNG Libraries, the UNG Office of Research and Engagement and the entire UNG-GURC Planning Committee. We also wish to acknowledge and thank the tireless work of our reviewers as well as the entire General Council of the Georgia Undergraduate Research Collective.

See you at GURC 2019!