

Friday, January 31, 2020

Time	Event	Location
1 pm – 3:15 pm	Registration, Snacks & Campus Tours <i>Snacks will be provided. Campus tours meet in the lobby and leave every 15 minutes from 2:30 pm to 3:30 pm.</i>	Atrium and Lobby, Embassy Suites
3:40 pm – 6:05 pm	Conference Opening Session Christine Kelley, Associate Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln Dean Mark Button, College of Arts and Sciences, University of Nebraska-Lincoln Tom Marley, Professor and Chair, Department of Mathematics, University of Nebraska-Lincoln	Auditorium, Second Floor, Nebraska Union
	<hr/> 1st Plenary Talk: <i>Mathematical Biology and the Revolution of 21st Century Science</i> Trachette L. Jackson, University of Michigan	
	Panel Discussion: <i>Careers Using Mathematics</i> Moderator: Swatee Naik, National Science Foundation Panelists: Katie Benson, University of Wisconsin-Stout Judith Hill, Oak Ridge National Laboratory Erica Klampfl, Ford Motor Company Evelyn Lamb, Freelance writer Amanda Ludes, Berkshire Hathaway Homestate Companies Calandra Tate Moore, U.S. Department of Defense	
6:15 pm – 6:45 pm	Social Time	Atrium, Embassy Suites
6:45 pm – 9 pm	Banquet & Panel Discussion: Opening Welcome: Susan Fritz, University of Nebraska <i>Random Bits of Advice Panel</i> Moderator: Judy Walker, University of Nebraska-Lincoln Panelists: Margaret Cozzens, Rutgers University Laura Escobar, Washington University in St. Louis Trachette L. Jackson, University of Michigan Simone Westermayer, U.S. Department of Homeland Security	Regents Ballroom BCDEF, Embassy Suites

Saturday, February 1, 2020

Time	Event	Location
7 am – 8 am	Networking Breakfast & Poster Session Setup <i>Poster presenters should set up their posters at this time in Regents Ballroom A. T-pins will be provided. The conference social hour will be from 7 am to 8 am.</i>	Breakfast in Atrium; Posters in Regents Ballroom A, Embassy Suites
Session 1 – Presentations by Undergraduate Students		
	Alumni Room Embassy Suites	Regents Ballroom - DE Embassy Suites
8:10 am – 8:25 am	<i>A Mathematical Investigation of Sol LeWitt's Wall Drawing 413</i> Lydia Ahlstrom, Keene State College	<i>Introducing a Flexible Multivariate Count Distribution that Accommodates Data Dispersion</i> Yixuan (Sherry) Wu, Georgetown University
8:30 am – 8:45 am	<i>Commutators and the Magnus Representation of the Torelli Group</i> Mira Wattal, Johns Hopkins University	<i>Impacts on Patient's IPR in Relation to RA with Behavioral and Socioeconomic Factors</i> Gabrielle Taylor, Clarkson University
8:50 am – 9:05 am	<i>Zero Forcing and Iteration Index for Gear and Helm Graphs</i> Rilee Burden and McKenzie Fontenot, University of North Texas	<i>Optimal Ranges for Cutoff Probabilities of Discrete Distributions Derived from Nonstandard Decks of Cards</i> Kathryn (Nikki) Bolinger, Washburn University
9:10 am – 9:25 am	<i>Electron-Phonon Coupling in Transparent Conductors with Sensitivity Analysis</i> Sarah Naldo, United States Naval Academy	<i>A Game Theoretic Analysis of the RSU 9 School Board's Weighted Voting System</i> Amanda Gulley, Rockhurst University
9:30 am – 10:20 am	Panel Discussion: <i>Choosing a Graduate Mathematics Program</i> Moderator: Josh Brummer, University of Nebraska-Lincoln Panelists: Nicki Boardman, Oklahoma State University Angie Davenport, Florida State University Kathryn Mulholland, University of Notre Dame Anastasia Nathanson, San Francisco State University Matea Santiago, University of California, Merced Ana Wright, University of Nebraska-Lincoln	<i>Reconstructing Historical Earthquakes with Markov Chain Monte Carlo</i> Camille Carter, Brigham Young University
		<i>Extending the Systems Model of Platelet Homeostasis to Understand Platelet Dynamics in ITP</i> Alexa Shreeve, Davidson College
		Regents Ballroom BC, Embassy Suites

10:25 am – 10:40 am	Conference Photo <i>If you did not sign a photo release statement, please do not participate in the group photo.</i>	Atrium, Embassy Suites (outside if weather permits)	
10:40 am – 10:55 am	Networking Time	Pre-Convention Area, Embassy Suites	
	Session 2 – Presentations by Undergraduate Students		
	Alumni Room Embassy Suites	Regents Ballroom - DE Embassy Suites	Regents Ballroom - F Embassy Suites
11:00 am – 11:15 am	<i>The Tambara Functor Structure of the Trace Ideal</i> Maxine Calle, Reed College	<i>Investigating Math Anxiety Within College Students</i> Therese Azevedo, Sonoma State University	<i>Exploring the Garden of Petaluma Knots</i> Addie McCurdy, University of St. Thomas
11:20 am – 11:35 am	<i>Symbolic Powers of Defining Ideals of Veronese Rings</i> Fangu Chen, University of Michigan	<i>Inspiring Youth in STEM Through Math Modeling</i> Grace Feterl and Nicole Kratz, Augustana University	<i>Knots on the Brain: Finding and Identifying Knots in Proteins</i> Elizabeth Whalen, University of St. Thomas
11:40 am – 11:55 am	<i>Classifying Toric Surface Codes of Dimension 7</i> Emily Cairncross, Oberlin College, and Stephanie Ford, Texas A&M University	<i>Finding Structure in Texts with Topological Data Analysis</i> Calli Clay and Ella Graham, Saint Catherine University	<i>Volume Bounds for Trivalent Planar Graphs</i> Anita Koh, Pacific University
noon – 12:15 pm	<i>Unlikely Intersections and Portraits of Dynamical Semigroups</i> Talia Blum, Massachusetts Institute of Technology	<i>Classifying Stocks by Sector Using Persistent Homology</i> Sierra Cartano, Francis Marion University	<i>Pascal's Mystic Hexagon in Tropical Geometry</i> Hanna Hoffman, Harvey Mudd College
12:20 pm – 1:45 pm	Lunch (on your own) <i>Please see restaurant list in your registration materials. If you'd like to go with a group, meet in the hotel lobby by 12:30 pm.</i>	Downtown Lincoln	
1:45 pm – 2:40 pm	2nd Plenary Talk: You Can Do Anything You Set Your Mind To Do Margaret Cozzens, Rutgers University	Regents Ballroom BC, Embassy Suites	
2:45 pm – 2:55 pm	Break	Regents Ballroom AB, Embassy Suites	
2:55 pm – 4:20 pm	Poster Session <i>Poster presenters will be available to discuss their posters. Snacks also will be available during the poster session. Poster presenters should take down their posters between 4:20 pm and 4:30 pm OR between 7 pm and 7:15 pm.</i>	Regents Ballroom AB, Embassy Suites	

Session 3 – Presentations by Undergraduate Students			
	Alumni Room Embassy Suites	Regents Ballroom - DE Embassy Suites	Regents Ballroom - F Embassy Suites
4:30 pm – 4:45 pm	<i>Bounds on Entropy in Subgroups of the Braid Group</i> Nia Walton, Spelman College, and Ruoyi Wang, Agnes Scott College	<i>Fusing Visual and Textual Information to Determine Content Safety</i> Amber Hu, Yale University	<i>Developing a General Compton Scattering Cross-Section in Strong Magnetic Fields</i> Meredith Bomers, Hope College
4:50 pm – 5:05 pm	<i>On Congruence Subgroups of the Braid Group</i> Jess Appel, University of Kentucky, Katie Gravel, Massachusetts Institute of Technology, and Annie Holden, Colby College	<i>Motion Analysis to Quantitatively Assess the Level of Pain in Animals</i> Annabelle Eyler, Hood College	<i>Identifying Gerrymandering Using MCMC</i> Cristina Lange, Brigham Young University
5:10 pm – 5:25 pm	<i>Classifying Homomorphisms from the Braid and Symmetric Groups</i> Lily Li, University of California, Berkeley	<i>Automating Artifact Detection in Video Games</i> Parmida Davarmanesh, University of Michigan	<i>Proving the Convergence of a Monte Carlo Tree Search to Brownian Motion</i> Elana Kozak, United States Naval Academy
5:25 pm – 5:30 pm	Breakout Session Facilitator Meeting <i>For breakout facilitators only: A brief overview of instructions for optimal flow of breakout sessions will be discussed.</i>		Director's Boardroom, Embassy Suites
5:35 pm – 6:15 pm	Breakout Session 1 <i>Undergraduates have been assigned to breakouts. Please find your tickets at the back of your nametag. Faculty and graduate students are welcome to attend any of the breakout sessions or have been asked to facilitate a session. See the registration desk to confirm breakout facilitation assignments. If you would like to attend different breakouts, please come to the conference registration desk to switch your tickets with any extras that are available.</i>		Alumni Room, Regents D, E or F, Chancellor's Rooms 1, 2, 3, P St. Dining, Atrium, Embassy Suites
6:20 pm – 7 pm	Breakout Session 2 <i>See notes for Breakout Session 1.</i>		Alumni Room, Regents D, E or F, Chancellor's Rooms 1, 2, 3, P St. Dining, Atrium, Embassy Suites
7 pm – 7:15 pm	Poster Session Takedown <i>If you presented a poster, please pick it up and remove it from the ballroom before the Networking Dinner.</i>		Regents Ballroom A, Embassy Suites
7:15 pm	Networking Dinner <i>Note to undergraduates: Table assignments for conference guests are featured in your bio packet. Be prepared to switch tables during the meal to maximize networking opportunities.</i>		Regents Ballroom ABC, Embassy Suites

Please note: Check-out time for the hotel is 1 p.m. Sunday.

If you are flying out of Lincoln: Hotel shuttles to the airport depart on the hour, and every half hour as needed. Please be sure to let the front desk staff know on Saturday when you need to depart. The typical amount of time needed to arrive at the Lincoln airport is 1 hour and 15 minutes prior to flight departure.

If you are flying out of Omaha: Allow at least an hour of drive time to the airport (weather permitting) and an additional 1 hour and 15 minutes prior to flight departure. If you are using OMALiNK or Leisure Limousine, they should have scheduled this trip with you.

Sunday, February 2, 2020

Time	Event	Location
7 am – 8 am	Networking Breakfast <i>The conference social hour will be from 7 am to 8 am.</i>	Atrium, Embassy Suites
Session 4 – Presentations by Undergraduate Students		
	Alumni Room Embassy Suites	Regents Ballroom - DE Embassy Suites
	Regents Ballroom - F Embassy Suites	
8:30 am – 8:45 am	<i>Sufficient Sampling to Characterize Generalized Cantor Sets</i> Sarah McCarty, University of Nebraska at Omaha	<i>Two-Stage Optimization Model for Fantasy Hockey Draft Picks</i> Judith Brennan, Georgia Institute of Technology
		<i>Coloring of Algebraic Structures</i> Jiayi Chen and Sanah Suri, Grinnell College
8:50 am – 9:05 am	<i>Solving the Radiative Transfer Equation Using the Radon Transform</i> Megan Oeltjenbruns, Wayne State College	<i>The Happiest Hotel on Earth</i> Madeline Preston, Furman University
		<i>The Role of Eigenvalues of Threshold Graphs to Study Graph Invariants</i> Brittany Sullivan, State University of New York at Geneseo
9:10 am – 9:25 am	<i>Theoretical Model of Blood Flow in the Human Retinal Vasculature</i> Mandy Abernathy, Wisconsin Lutheran College	<i>An Integer Programming Approach to Assigning Faculty to Committees</i> Chelsea Alford and Ella Morton, Furman University
		<i>Pan Flutes and Other Graceful Labelings</i> Connor Parrow, Hobart and William Smith Colleges
9:30 am – 9:45 am	<i>Probability Modeling of HIV Viral Blips</i> Megan Osborne, University of Scranton	<i>Combining Genetic Algorithms and Machine Learning (CgALM) for Modeling Complex Systems</i> Katherine Thai, Rutgers University
		<i>Total Difference Labelings of Graphs</i> Yufei Zhang, Saint Mary's College
9:50 am – 10:05 am	<i>A Mathematical Model of Surface-Mediated Enzyme Inhibition Under Flow</i> Shannon Bride and Jayde Thompson, Colorado School of Mines	<i>Online Algorithms for Allocating Products to Users</i> Andrea Boskovic, Amherst College
		<i>Trees with 4 Edges Decomposition of Complete 3-Uniform Hypergraphs</i> Erin Dawson, Colorado State University

10:15 am – 10:55 am	Breakout Session 3 <i>Undergraduates have been assigned to breakouts. Please find your tickets at the back of your nametag. Faculty and graduate students are welcome to attend any of the breakout sessions or have been asked to facilitate a session. See the registration desk to confirm breakout facilitation assignments. If you would like to attend different breakouts, please come to the conference registration desk to switch your tickets with any extras that are available.</i>	Alumni Room, Regents D, E or F, Chancellor's Rooms 1, 2, 3, P St. Dining, Atrium, Embassy Suites
11:05 am – 11:15 am	Closing Remarks Christine Kelley, Associate Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln Glenn Ledder, Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln	Regents Ballroom C, Embassy Suites
By 1 pm	Check-out Time for Hotel	Lobby, Embassy Suites

Evaluation Survey

The evaluation survey is intended to help the conference planning committee and evaluators understand what worked well, what participants gained from participating in the conference, and what might be enhanced to make any future conferences more useful and beneficial for participants. Questions gather information on your perceptions on whether goals were met, your satisfaction with different facets of the sessions, opportunities to network, conference logistics, what you were able to take away from the conference, and your recommendations.



The survey does not collect identifying information. Data from the survey will be seen by conference organizers and the conference evaluators and may be used to plan future conferences. The information collected will be incorporated into conference reports. No individual identifying information will be published in any reports.

A link to the survey will be emailed to you. However, if you wish to take the survey sooner, please feel free to enter the following URL into your web browser or scan the QR code. Thanks for your consideration and participation in the conference evaluation survey.

go.unl.edu/ncuwmsurvey2020