

Friday, January 25, 2019

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 Elizabeth Theiss-Morse, Interim Dean, 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
	1st Plenary Talk: <i>Math, Finance, and Decisions</i> Margaret Holen, Princeton University	
	Panel Discussion: <i>Careers Using Mathematics</i> Moderator: Petronela Radu, University of Nebraska-Lincoln Panelists: Maia Averett, Mills College Krystle Hinds, National Security Agency Carol Meyers, Lawrence Livermore National Lab Tina Sposato, Intel Emily Witt, University of Kansas	
6:15 pm – 6:45 pm	Social Time	Atrium, Embassy Suites
6:45 pm – 9 pm	Banquet & Panel Discussion: <i>Random Bits of Advice</i> Moderator: Judy Walker, University of Nebraska-Lincoln Panelists: Christine Darden, NASA Langley Research Center Zhilan Feng, Purdue University Margaret Holen, Princeton University Candice Price, University of San Diego	Regents Ballroom BCDEF, Embassy Suites

Saturday, January 26, 2019

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. While the conference social hour will be from 7 am to 8 am, the hotel will have breakfast available until 10:30 am.</i>	Breakfast in Atrium; Posters in Regents Ballroom A, Embassy Suites	
Session 1 – Presentations by Undergraduate Students			
	Regents Ballroom - D Embassy Suites	Regents Ballroom - E Embassy Suites	Regents Ballroom - F Embassy Suites
8:10 am – 8:25 am	<i>Boundary Layer Separation in Turbulent Fluids</i> Elizabeth Spaulding, University of Nebraska-Lincoln	<i>The Spread of Information on Twitter Based on Sentiment</i> Haley Knox, Eastern Connecticut State University	<i>The Hidden Information in Infinite Series Arising from Graphs</i> Juliann Geraci, State University of New York at Oswego
8:30 am – 8:45 am	<i>Efficiency of a Moving Mesh System with a Curvature-type Monitor Applied to Burgers' Equation</i> Marianne DeBrito, Lawrence Technological University, and Annaliese Keiser, Bowling Green State University	<i>Tracking Neural Activity: Automated Image Analysis</i> BethAnna Jones, State University of New York at Geneseo, and Amanda Stanley, Grand Valley State University	<i>Braces and their Opposites</i> Audrey Goodnight and Laura Stordy, Agnes Scott College
8:50 am – 9:05 am	<i>Modeling Economic Capital Using Market and Mortality Risk and Copula Methodology</i> Sydney Benson and Jessica Mohr, University of St. Thomas	<i>Simulating and Modeling Influence in Referendum Elections with Graph Theory</i> Kaleigh Roach, North Greenville University, and Lee Trent, Rose-Hulman Institute of Technology	<i>Twisted Hermitian Codes in the McEliece Cryptosystem</i> Bethany Matsick, Liberty University
9:10 am – 10 am	Panel Discussion: <i>Choosing a Graduate Mathematics Program</i> Moderator: Jim Lewis, University of Nebraska-Lincoln Panelists: Angelica Babei, Dartmouth College Robin Belton, Montana State University Sarah Blackwell, University of Georgia Sami Davies, University of Washington Aurora Marks, University of Nebraska-Lincoln Alicia Prieto-Langarica, Youngstown State University Colleen Robichaux, U. of Illinois at Urbana-Champaign	Regents Ballroom BC, Embassy Suites	

10:10 am – 10:25 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)	
10:30 am – 11:20 am	2nd Plenary Talk: Applications of Mathematical Models in Biology and Epidemiology Zhilan Feng, Purdue University	Regents Ballroom BC, Embassy Suites	
Session 2 – Presentations by Undergraduate Students			
	Regents Ballroom- D Embassy Suites	Regents Ballroom - E Embassy Suites	Regents Ballroom - F Embassy Suites
11:25 am – 11:40 am	<i>Comparing Object Correlation Metrics for Effective Space Traffic Management</i> Julie Zhang, University of Washington	<i>Survey Data and Mathematical Modeling in Prioritizing Water Interventions in Developing Countries</i> Jane Cox and Jordan Spencer, Brigham Young University	<i>Chromatic Symmetric Functions with Respect to Complete Graphs</i> Sofia Martinez, University of California, Riverside
11:45 am – Noon	<i>Multimodal Data Fusion in 3D Printing Quality Prediction</i> Xinru Liu, Wheaton College	<i>Multivariate Numerical Rootfinding</i> Suzanna Stephenson, Brigham Young University	<i>Automorphisms and Characters of Finite Groups</i> Brittany Bianco and Leigh Foster, Metropolitan State University of Denver
12:05 pm – 12:20 pm	<i>Predicting Migration Timing of the Ruby-throated Hummingbird Using Multiple Regression</i> Sister Megan Therese Tunink, Benedictine College	<i>Analyzing the Dynamics of an Inflammatory Response to a Bacterial Infection in Rats</i> Allison Torsey, State University of New York – Buffalo State	<i>A Geometric Approach to Generalized Frobenius Numbers</i> Rebecca Broschat and Alyssa Stenberg, Northern Arizona University
12:25 pm – 12:40 pm	<i>Come Converge: Let's Talk About Clustering</i> Alanis Chew and Madeline Cope, Youngstown State University	<i>Cellular-scale Modeling of Oncogenic Proteins</i> Amanda McAdams, Washington University in St. Louis	<i>Using Origamis to Examine the Action of $SL(2, Z)$ on Quadratic Differentials</i> Paige Helms, University of California, Riverside
12:40 pm – 1:50 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 12:40 pm.</i>	Downtown Lincoln	
2 pm – 2:40 pm	3rd Plenary Talk: Faster than the Speed of Sound Christine Darden, NASA Langley Research Center	Regents Ballroom BC, Embassy Suites	
2:45 pm – 2:55 p.m.	Break	Pre-Convention Area, Embassy Suites	

2:55 pm – 4:20 pm	Poster Session <i>Poster presenters will be available to discuss their posters.</i> Snacks will also be available during the poster session. <i>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			
	Regents Ballroom - D Embassy Suites	Regents Ballroom - E Embassy Suites	Regents Ballroom - F Embassy Suites
4:30 pm – 4:45 pm	<i>Eta-Quotients of Prime or Semiprime Level and Elliptic Curves</i> Asimina Hamakiotes, Macaulay Honors at Baruch College	<i>Using Quality-of-Scores to Guide Prostate Radiation Therapy Dosing</i> Giulia Pintea, Simmons University	<i>When and How to Use Math Based Card Tricks in the Classroom</i> Morgan Mitchell, California State University, Sacramento
4:50 pm – 5:05 pm	<i>On the Construction of a Convex Ideal Polyhedron in Hyperbolic 3-Space</i> Allegra Allgeier, Kalamazoo College	<i>Using Time-Dependent Sensitivity Analysis to Combat Tuberculosis</i> Mayleen Cortez, California State University, Channel Islands	<i>Game Design Course</i> Mary Greene, Washburn University
5:10 pm – 5:25 pm	<i>From Ideal Polyhedra to Fundamental Domains in Hyperbolic 3-Space</i> Rainie Heck, Oberlin College	<i>Simulation Study of Bulk Reference-Based Imputation Method for Single-Cell RNA-seq Data</i> Yuheng Fu, Washington University in St. Louis	<i>Convex Hull Achievement Games in Euclidean Space</i> Stephanie McCoy, Northern Arizona University
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, 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, 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, January 27, 2019

Time	Event	Location
7 am – 8 am	Networking Breakfast <i>While the conference social hour will be from 7 am to 8 am, the hotel will have breakfast available until 10:30 am.</i>	Atrium, Embassy Suites
Session 4 – Presentations by Undergraduate Students		
	Regents Ballroom - D Embassy Suites	Regents Ballroom - E Embassy Suites
8:10 am – 8:25 am	<i>Artworks and Articles Meet Mapper and Persistent Homology</i> Alicia Ledesma Alonso and Hongyuan Zhang, Grinnell College	<i>Flow-Kick Systems in Neuroscience: Exploring the Treatment of Bipolar Disorder</i> Rosa Rossi-Goldthorpe, Bowdoin College
		Regents Ballroom - F Embassy Suites
		<i>Recovering Conductances of Resistor Networks in a Punctured Disk</i> Patricia Commins, Carleton College
8:30 am – 8:45 am	<i>Special Characterizations of Anti-Regular Graphs</i> Barbara Schweitzer, State University of New York at Geneseo	<i>Modeling Acute Blood Flow Responses to a Major Arterial Occlusion</i> Erin Zhao, Indiana University-Purdue University Indianapolis
8:50 am – 9:05 am	<i>Ineffective Sets and the Region Crossing Change Operation</i> Rachel Morris, University of Richmond	<i>Modeling Bacteria Growth and Antibiotic Interaction with Cellular Automata</i> Emma Kuntz, Furman University
9:10 am – 9:25 am	<i>Intersections of Shortest Taxicab Paths in the Sierpiński Carpet</i> Laura Seaberg, Haverford College	<i>Threshold Optimization in Multiple Binary Classifiers for Extreme Rare Events</i> Fatima Zaidouni, University of Rochester
		<i>Algorithmic Investigation of Substitution Tilings and their Associated Graph Laplacians</i> Nicole Harris and Alexandra Tubbs, Denison University
		<i>Exploring the Earth Moon Problem for Doubly Outerplanar Graphs</i> Maia Wichman, Grand Valley State University

Session 4 continued – Presentations by Undergraduate Students			
9:30 am – 9:45 am	<i>One-Seventh Ellipse Problem</i> Sanah Suri, Grinnell College	<i>Comparing Alternative Metrics of Metapopulation ‘Patch Value’ to Identify Effective Marine Protected</i> Sophia Perron, University of Minnesota, Twin Cities	<i>Vertex-Minimal Planar Graphs with a Prescribed Automorphism Group</i> Sarah Lubow, Loyola University New Orleans, and Carlie Triplitt, University of Science and Arts of Oklahoma
9:50 am – 10:05 am	<i>The Shape of Large Soap Bubbles</i> Breanna McBean, California State University, Fullerton	<i>Frequency Downshift in the Ocean</i> Camille Zaug, Seattle University	<i>Pattern Avoidance in Acyclic Digraphs</i> Meraiah Martinez, Benedictine College
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, Atrium, Embassy Suites
11:05 am – 11:15 am	Closing Remarks Glenn Ledder, Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln		Regents Ballroom BC, 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.

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