Friday, January 26, 2024

Time	Event	Location
1:00 – 3:15 pm	Registration, Snacks & Campus Tours *Snacks will be provided. Campus tours meet in the lobby and leave every 15 minutes from 2:30 pm to 3:30 pm.*	Atrium and Lobby, Embassy Suites
3:40 – 6:05 pm	Conference Opening Session Christine Kelley, Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska–Lincoln Katherine Ankerson, Executive Vice Chancellor, University of Nebraska–Lincoln Petronela Radu, Professor and Chair, Department of Mathematics, University of Nebraska–Lincoln	Auditorium Second Floor, Nebraska Union
	1st Plenary Talk: *The Intersection of Adversity, Resilience, Tenacity, and Models of Photoreceptor Metabolism: My Story, Passion, and Research* Erika Tatiana Camacho, University of Texas San Antonio	
	Panel Discussion: *Careers Using Mathematics* **Moderator:** Levi Heath, University of Nebraska–Lincoln **Panelists:** Amanda Carr, National Security Agency Erin McNicholas, Willamette University Joana Perdomo, Raytheon Angela Robinson, National Institute of Standards and Technology Kelly Yancey, Institute for Defense Analyses	
6:15 – 6:45 pm	Social Time	Atrium, Embassy Suites
6:45 – 9:00 pm	Banquet & Panel Discussion: *Random Bits of Advice* **Moderator:** Kristen Amman, University of Nebraska–Lincoln **Panelists:** Erika Tatiana Camacho, University of Texas San Antonio Anisah Nu'Man, Spelman College Emily Riehl, Johns Hopkins University	Regents Ballroom BCDEF, Embassy Suites

Saturday, January 27, 2024

Time	Event	Location
7:00 – 8:00 am	Networking Breakfast & Poster Setup *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 a.m. to 8 a.m., the hotel will have breakfast available until 10:30 a.m.*	Breakfast in Atrium; Posters in Regents Ballroom A, Embassy Suites

Session 1 – Presentations by Undergraduate Students

Time	Regents Ballroom - **B** Embassy Suites	Regents Ballroom - **C** Embassy Suites	Regents Ballroom - **DE** Embassy Suites
8:00 – 8:15 am	*Measuring Fractal Behavior in Time Series Using Discrete Energy* Svetlana Pack, University of Rochester	*Complete Residue Systems in Second-order Linear Recursive Sequences mod a Prime* Edie Irwin and Ayechan Moe, Agnes Scott College	*Hyperbolic Surfaces and Teichmüller Theory* Molly Sager, Northeastern University
8:20 – 8:35 am	*Using Theoretical Modeling to Predict Ideal Therapeutic Strategies for Organ Transplants* Madeleine Whalen, Indiana U Purdue U Indianapolis	*Digitally Restricted Ostrowski Expansions* Khaiylah Johnson Bustamante, Mercy University	*Political Structures and the Topology of Hypergraphs* Zixu Wang, Wellesley College
8:40 – 8:55 am	*Finding the Key Length of a Vigenère Cipher* Morgan Carns and Alyssa Pate, Furman University	*Moments of Random Multiplicative Functions over Function Fields* Annemily Hoganson, Carleton College	*Explicit Categorical Constructions Used in Modeling Sentences* Mia Goldstein and Emily Herbert, SUNY New Paltz

9:05 – 10:00 am	Panel Discussion: *Choosing a Graduate Mathematics Program* **Moderator:** Yvonne Lai, University of Nebraska–Lincoln **Panelists:** Leigh Foster, University of Oregon Kendall Gibson, Tulane University Caroline Hammond, Dartmouth College Kirsten Morris, University of Nebraska–Lincoln Mychelle Parker, University of California Santa Barbara Shelby Stowe, Colorado School of Mines	Regents Ballroom BC, Embassy Suites

10:00 – 10:25 am	Conference Photo *If you did not agree to the image release statement in registration, please do not participate in the group photo. Note: A **beverage break** will be provided until 11:30.*	Meet in Regents BC, will head outside if weather permits

Session 2 – Presentations by Undergraduate Students

	Regents Ballroom- **B** Embassy Suites	Regents Ballroom - **C** Embassy Suites	Regents Ballroom - **DE** Embassy Suites
10:30 – 10:45 am	*Elliptic Islands in Moon Billiards* Julia Jammalo and Lingran Zhang, Fairfield University	*Ghost Series and a Motivated Proof of the Bressoud-Göllnitz-Gordon Identities* Emily Shambaugh, Dickinson College	*Exploring Combinatorics of Pretzel Links through Grid Diagrams* Janee Schrader, University of Wisconsin-Eau Claire
10:50 – 11:05 am	*Mathematical Modeling of Liquid Metal Dynamics* Kathryn Massey, Marist College	*Sato-Tate Type Distributions for Matrix Points on Elliptic Curves and Some K3 Surfaces* Avalon Blaser, University of Utah; Molly Bradley, University of Pennsylvania; and Kathy Xing, Amherst College	*Cubiquitous Lattices and Chi-Sliceness* Erica Choi, Columbia University, and Katerina Stuopis, University of Wisconsin-Madison
11:10 – 11:25 am	*Using Natural Language Processing to Interpret Music Evoked Autobiographical Memories* Sangeetha Ramanuj, Oberlin College	*Patterns of Primes in Joint Sato–Tate Distributions* Catherine Cossaboom, University of Virginia	*An Extension of the sl(n) Polynomial to Knotted 4-valent Graphs* Victoria Wiest, California State University, Fresno
11:30 – 11:45 am	*Parallel Algebraic Multigrid for Fusion and Higher-Order PDEs* Sophie Boileau, Institute for Pure & Applied Mathematics	*Strategies in Sylver Coinage* Natalie Burton and Tara Zurick, Northern Arizona University	*A Component Upper Bound for Link Mosaic Diagrams* Jessica Childress, Gonzaga University

11:45 am – 1:00 pm	Lunch (on your own) *Please see restaurant list in your registration packet. If you'd like to go with a group, meet in the hotel lobby by 12:50 pm.*	Downtown Lincoln
1:00 – 1:50 pm	2nd Plenary Talk: *Categorifying Cardinal Arithmetic* Emily Riehl, Johns Hopkins University	Regents Ballroom BC, Embassy Suites
1:50 – 3:00 pm	Poster Session *Poster presenters will be available to discuss their posters.* ***Snacks will also be available during the poster session.***	Regents Ballroom AB, Embassy Suites
3:00 – 3:10 pm	Poster Session Takedown *If you presented a poster, please pick it up and remove it from the ballroom before Session 3 begins.*	Regents Ballroom A, Embassy Suites

	Session 3 – Presentations by Undergraduate Students		
	Regents Ballroom - **B** Embassy Suites	Regents Ballroom - **C** Embassy Suites	Regents Ballroom - **DE** Embassy Suites
3:10 – 3:25 pm	*The Committee Size Paradox in Three-Candidate Elections* Rhiannon Maynes, William Jewell College	*Berezin Range of Composition Operators* Teressa Chen, Coe College	*Different Variations of Toggle* Djeneba Diop, Hobart and William Smith Colleges
3:30 – 3:45 pm	*Detection of Out-of-Stock Items at Retail Stores Using Computer Vision* Nour Kawni and Maria Nicos Alain Pasaylo, Institute for Pure & Applied Mathematics	*Discrete Neural Networks* Lillian Stolberg, University of Rochester	*Painted Tropical Complexes* Sophia Palcic, Kansas State University
3:50 – 4:05 pm	*Bat-Math! Modeling Mexican Free-tailed Bat Populations with Integrodifference Equations* Camryn Rhude, Winona State University	*Finite Group Quotients with Small Distortion* Zoey Yelsky, Northeastern University	*Natural Bijections for Contiguous Pattern Avoidance in Words* Julia Carrigan, Occidental College
4:10 – 4:25 pm	*Hyperspectral Eye Tissue Images Segmentation and Boundary Detection* Yuhan Fu, Denison University	*Generalized Delta sets of Numerical Semigroups* Sogol Cyrusian, University of California, Santa Barbara, and Mayla Ward, Western Washington University	*Enumeration of Cyclic Permutations in One-Line and Cycle Notation* Jensen Bridges, Oklahoma State University
4:35 – 5:05 pm	Breakout Session 1 *Please use the Sched app to mark your breakout selection. Once there are no seats left in a room, please choose another breakout to attend. Faculty and graduate students are welcome to attend any of the breakout sessions, or have been asked to facilitate a session.*		Alumni Room, Regents D, E or F, Chancellors 1, 2, 3, Bar & Grille, Embassy Suites
5:15 – 6:15 pm	Networking Mixer *Please join our invited guests to socialize informally. Heavy hors d'oeuvres and desserts will be provided.*		Regents Ballroom AB, Embassy Suites
6:15 pm	Dinner (on your own)		Downtown Lincoln

Please note: Check-out time for the Embassy Suites 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 prior to flight departure is 1 hour and 15 minutes.

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, they should have scheduled this trip with you.

Sunday, January 28, 2024

Time	Event	Location
7:00 – 8:00 am	Networking Breakfast *While the conference social hour will be from 7 a.m. to 8 a.m., the hotel will have breakfast available until 10:30 a.m.*	Atrium, Embassy Suites
8:00 – 8:40 am	Breakout Session 2 *Please use the Sched app to mark your breakout selection. Once there are no seats left in a room, please choose another breakout to attend. Faculty and graduate students are welcome to attend any of the breakout sessions, or have been asked to facilitate a session.*	Alumni Room, Regents D, E or F, Chancellors 1, 2, 3, Embassy Suites

Session 4 – Presentations by Undergraduate Students

	Regents Ballroom - **A** Embassy Suites	Regents Ballroom - **B** Embassy Suites	Regents Ballroom – **C** Embassy Suites
8:45 – 9:00 am	*How Tracking Shapes Teachers' Instructional Decisions and Views of Students* Erin Prins, Furman University	*Utilizing the Navier-Stokes Equations for Modelling Incompressible, Viscous, Non-Laminar Fluid Flow in Ultrasonic-Oscillatory Artificial Gravity* DJ Henson, Drake University	*Relating Quiver Varieties and Hessenberg Varieties* Jordan Martino, Northeastern University
9:05 – 9:20 am	*Distinguishing Index of Mycielskian Graphs* Mallory Price and Sarah Zaske, Grand Valley State University	*A Mathematical Model of C. difficile Prevention and Control in Healthcare Settings* Kristen Ess, Lewis University	*The Sandpile Group of Subset Intersection Graphs* Isabel Pfaff, Oberlin College
9:25 – 9:40 am	*Zero-Sum-Free Graph Labellings* Maggie Lai, Tulane University	*NUTS for Bayes: Bayesian Generalized Weibull Regression with Applications to Survival Data* Catherine Lillja, The College of New Jersey, and Maya Powell, Berry College	*Primitive Solvable Permutation Groups of Rank 5 and 6* Kolton O'Neal, University of Nebraska–Lincoln
9:45 – 10:00 am	*On the Generalized Distance Matrix* Hannah Graff, Creighton University	*Adjustments for Kurtosis and Continuity on the Prentice Test* Lily Gebhart, Occidental College	*Minimal Hypergroups with Non-normal Structure* Qianqian Wu, Grinnell College
10:05 – 10:20 am	*Rainbow Cliques Guaranteed: New Results on Colorful Turán Problems* Tahda Queer, Hunter College, CUNY	*Solitaire: The Strongest Hand Cipher* Rayme McCallan, Western Oregon University	*Musical Systems with $\mathbb{Z}n$ - Cayley Graphs* Olivia Roberts, University of South Dakota

10:30 – 11:10 am	Breakout Session 3 *Please use the Sched app to mark your breakout selection. Once there are no seats left in a room, please choose another breakout to attend. Faculty and graduate students are welcome to attend any of the breakout sessions, or have been asked to facilitate a session.*	Alumni Room, Regents D, E or F, Chancellors 1, 2, 3, Embassy Suites
11:15 – 11:30 am	Closing Remarks Christine Kelley, Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln Alex Zupan, Associate Professor of Mathematics and Co-Chair of NCUWM, University of Nebraska-Lincoln	Regents Ballroom C, Embassy Suites
By 1:00 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 from UNL MERC. 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/ncuwmsurvey2024

SCHED

To access the schedule online
to explore all the breakout session options
and the list of poster presenters, as well as meet
the other participants and speakers,
accept your emailed invitation to join **Sched**!

https://ncuwm2024.sched.com