



FRIDAY, February 8, 2008

1:00-3:30

Welcome and Registration (Student Union, 2nd floor, outside Regency Suite)
Pick up tickets for Saturday afternoon break-out groups.
Snacks in Regency Suite

3:40

Opening Session (Auditorium)
Welcome: Judy Walker, University of Nebraska – Lincoln
Remarks: David Manderscheid, Dean of the College of Arts and Sciences, University of Nebraska-Lincoln

4:00-4:30

Alumna Presentation (Auditorium)
Katherine Bartley, National Security Agency (NCUWM 2000, 2001)
How I became a mathematician (and not a high school French teacher)

4:40-5:10

Alumna Presentation (Auditorium)
Angela Desai, University of Montevallo (NCUWM 2000)
The obvious answer: becoming a math professor

5:20-5:50

Alumna Presentation (Auditorium)
Cornelia Yuen, The State University of New York at Potsdam (NCUWM 2001)
Lifestyle of a new professor

7:00

Banquet (Holiday Inn, Lincoln Ballroom)
Panel Discussion: *How to Benefit from NCUWM*
Moderator: Raegan Higgins, UNL
Katherine Bartley, National Security Agency (NCUWM 2000, 2001)
Angela Desai, University of Montevallo (NCUWM 2000)
Cornelia Yuen, The State University of New York at Potsdam (NCUWM 2001)

SATURDAY, February 9, 2008

Bring your coat for the morning because the photo will be taken outdoors!

7:30-8:25

Breakfast (Husker, with overflow into Executive)

8:30-9:45

Session 1 – Presentations by Undergraduate Participants

	Arbor	Niobrara/Missouri	Platte
8:30-8:45	Pam Welch Nazareth C of Rochester <i>Investigating the Structure of a Double Bubble Cookie</i>	Joanna Kreiselman, Denison University <i>Modern Cryptology Conundrums: Efficient Factoring Methods for Large Integers</i>	Anna Sparacino Westminster College, PA <i>The Evolution of the ABO Blood Group: A Mathematical Model</i>
8:50-9:05	Lindsay Orlando Alverno College Erica Goedken Benedictine College <i>Bananas and Braces: An Exploration of the Two- Variable Interlace Polynomial</i>	Marie Dailey John Carroll University <i>Divisibility Properties of 2007 and Related Numbers</i>	Sherry Linn Millersville University <i>Cardiac Arrhythmias and the FitzHugh-Nagumo Model</i>
9:10-9:25	Hannah Breckbill Carleton College <i>Fixing Numbers of Hypercubes and Hypercube Variants</i>	Anne Rollick John Carroll University <i>Elliptic Curves with Mordell- Weil Group $y^2=(1-x^2)(1-k^2x^2)$</i>	Cara Montgomery Texas A&M University <i>Modeling of Master and Slave Oscillators in Birds During Migratory Season</i>
9:30-9:45	Nikole Laros Millersville University <i>Equitable Circular Labelings of Graphs</i>	Arielle Leitner California State U, Chico <i>A Generalized Derivative with Applications to Number Theory</i>	Yasmeen Hussain University of Utah <i>An Exploration in Mathematical Biology: Modeling the Regulatory and Signaling Dynamics in Cells</i>

9:50-10:40

Panel Discussion: *The Inside Scoop on Graduate School* (Salons B and C)

Moderator: Roger Wiegand, UNL

Martha Gregg, UNL

Emily King, University of Maryland

Tracy McKay, Iowa State University

Emily Peters, University of California, Berkeley

Svetlana Pozanovik, Texas A&M University

Paulette Willis, University of Iowa

Lynna Yengulap, University of Kansas

10:40-11:10

Photo (location to be announced at the conclusion of the 9:50-10:40 panel discussion)

If you did not sign a photo release statement, please do not participate in the group photo.

Beverage Break after photo (Husker, Assembly, lower level halls)

You may pick up or exchange tickets for the Saturday afternoon break-out groups.

11:15-12:30

Session 2 – Presentations by Undergraduate Participants

	Arbor	Niobrara/Missouri	Platte
11:15-11:30	Lisa Bromberg New College of Florida <i>Tilings and Periodicities of Words</i>	Carolyn Atwood Whitman College <i>Self-Influencing Interpolation in Groundwater Flow</i>	Rebecca Kunzendorf Bates College <i>Vaccination for the Human Papilloma Virus Using Game Theoretic and Epidemiologic Models</i>
11:35-11:50	Emily Clader Columbia University <i>Border Correlations of Partial Words</i>	Jessica Kenigson U of Tennessee, Knoxville <i>Energy Decay Estimates for the Dissipative Wave Equation with Space-Time Dependent Potential</i>	Karina Aliaga Temmy Brotherson N. Jersey Inst. Tech. (NJIT) <i>Island Biogeography with Active Dispersal</i>
11:55-12:10	Sarah Catalano US Naval Academy <i>On Duursma Zeta Functions of Codes</i>	Wilhelmina Chik Seattle University <i>Stability of Plane-Wave Solutions to the Vector Nonlinear Schrodinger Equation Including Dissipation</i>	Debra Witczak Benedictine University <i>The Dynamics of One-Predator Two-Prey Systems</i>
12:15-12:30	Milena Nikolova Gettysburg College <i>Exploring Cutset Profiles with Norm $n-2$ and Width $n-1$ in the Boolean Lattice</i>	Jeannie Walldren Northern Arizona U <i>Solving Systems of Non-Linear Coupled PdE's using Newton's Method</i>	Catherine Lewis Whitman College <i>Dynamics of Ratio-Dependent Predator-Prey Models with Nonconstant Harvesting</i>

12:30-2:00

Break for Lunch (see the restaurant list in the registration packet)

Meet in the hotel lobby 12:30-12:40 if you would like to join a group for lunch.

12:40 is the deadline for exchanging tickets for Saturday afternoon break-out groups.

12:45-1:45

Faculty Program (University Room)

Moderator: Sue Geller, Texas A&M

Deborah Lockhart, National Science Foundation

Kathleen O'Hara, Associate Director, Mathematical Sciences Research Institute

Jennifer Quinn, University of Washington, Tacoma and former Executive Director of AWM

2:00-2:50

Panel Discussion: *I Know What You Should Do Next Summer* (Salons B and C)

Moderator: Glenn Ledder, UNL

Katie Ansaldi, UNL graduate student and IMMERSE alumna

Katherine Bartley, National Security Agency

Deborah Lockhart, National Science Foundation

Ulrica Wilson, Morehouse College and EDGE

2:50-3:40

Poster Session (Salon A and Assembly)

3:40-4:00

Beverage and Snack Break (Husker)

4:00-5:15

Session 3 – Presentations by Undergraduate Participants

	Arbor	Niobrara/Missouri	Platte
4:00-4:15	Hanna Komlos Rutgers University <i>Dynamics of the Dual Billiard Map</i>	Hillary Sackett Smith College <i>Development of 3-D Geometries for Respirator Flow Field Modeling</i>	Kerry Hannon US Naval Academy <i>Varsity Athletics and Attrition Rates for Female Midshipman: Does having a support system prevent attrition?</i>
4:20-4:35	Alicia Hoffmann Huntington University <i>Finite vs Infinite Fullerenes and the Ihara Zeta Function</i>	Jennifer Thompson Rhodes College <i>Blast Mitigation and Numerical Analysis: The Exploration of Aircraft Hardening Techniques</i>	Laurie de Castro Gettysburg College <i>Using Regression Analysis to Maximize Your Total Score in a Math Course</i>
4:40-4:55	Lauren Sipe Maryville College Tara Brune Humboldt State University <i>The Shortest Distance Between Two Points on the Regular Tetrahedron</i>	Michelle Mattingly US Naval Academy <i>Developing a Model for Acoustic to Seismic Landmine Detection</i>	Nicole Panza Westminster College <i>Applications of Game Theory to Student Peer Evaluations</i>
5:00-5:15	Magdalena Widjaja Middlebury College <i>The World Isn't Flat After All: An Exploration of Non-Euclidean Geometry</i>		Rachel Mead Judson University <i>Limits and Vanishing Points</i>

5:20-5:55

Break-out Session 1: (Specific rooms to be announced following the 2:00-2:50 panel discussion)

6:05-6:40

Break-out Session 2: (Specific rooms to be announced following the 2:00-2:50 panel discussion)

7:00

Pizza Dinner (Lincoln Ballroom)

SUNDAY, February 10, 2008

7:30-8:25

Breakfast (Husker, with overflow into Executive)
Turn in conference evaluation form in exchange for the photo!

8:30-9:25

Session 4 – Presentations by Undergraduate Participants

	Arbor	Niobrara/Missouri	Platte
8:30-8:45	Yafreisy Carrero C of Mount Saint Vincent <i>Constructing Concrete Indicators for the Transmission of Social Values: The case of Highbridge Voices</i>	Chelsie Wollett Ohio University <i>If $\det(A+B)$ Does Not Equal $\det(A)+\det(B)$, What Do We Do?</i>	Karamatou Yacoubou-Djima College of Staten Island <i>Statistical Filtering of Indirect Illumination for Computer Graphics</i>
8:50-9:05	Amy Brandenburg Portland State University <i>Undergraduate Students Reinvent the Quotient Group Concept: Part 1</i>	Ashley Weatherwax U of Texas at Dallas <i>An Introduction to LC-Quasigroups</i>	Megan Selbach-Allen US Naval Academy <i>Resolving Systematic Errors in using Discrete Data to Fit Continuous Functions and Further Applications of Motion Capture Technology</i>
9:10-9:25	Faith Rutherford Portland State University <i>Undergraduate Students Reinvent the Quotient Group Concept: Part 2</i>	Kerry Sipe City U of New York, City C <i>On the Non-orientable Genus of Zero-Divisor Graphs</i>	Taylor Pressler Mount Holyoke College <i>The Use of Singular Value Decomposition on Biophysical Data</i>

9:25-9:45

Beverage Break (Husker, Assembly, lower level halls)

9:45-10:20

Session 5 – Presentations by Undergraduate Participants

	Arbor	Niobrara/Missouri	Platte
9:45-10:00	Callie Johnson James Madison University <i>Modeling AFM Deformation of Cylindrical Tubes</i>	Crystal Diaz Northern Arizona U <i>A Topological Proof of Kneser's Conjecture</i>	
10:05-10:20	Amber Goodrich Alisha Zimmer Central Washington U <i>The Precision of Tacking and Jibing</i>	Melanie DeVries University of Iowa <i>Generating a Tangle Table</i>	Laura Mansfield Ithaca College <i>The Dynamics of Newton's Method Applied to Quartic Polynomials</i>

10:25-11:15

Panel Discussion: *Careers in Mathematics* (Salons A and B)

Moderator: Jim Lewis, UNL

Srisuda Holay, Database Analyst, National Research Corporation

Kathy O'Hara, Associate Director, Mathematical Sciences Research Institute

Jennifer Quinn, Professor of Mathematics, University of Washington, Tacoma

Amber Rinehart, Fellow, Society of Actuaries

Judy Walker, Professor of Mathematics, UNL

11:10

Conference Wrap-up (Salons A and B)