

1st

Nebraska Conference

for Undergraduate Women in Mathematics

March 5-7, 1999

[Graduate Program](#)
[Undergraduate Program](#)
[Mathematics and Statistics](#)
[University of Nebraska](#)



The Conference was designed to give outstanding undergraduate women the opportunity to discuss their own research and to meet other women who share their interest in the mathematical sciences. The conference took place at the university's city campus, near downtown Lincoln.

Speakers:

Sylvia Wiegand (UNL) and Carolyn Gordon (Dartmouth)

Panel Discussion: Choosing a Graduate School



What Happened?

Friday, March 5, 1999

3:00 p.m. Registration

3:30 p.m. Opening Session

Welcome from Brian Foster, Dean of the College of Arts & Sciences

Welcome from Jim Lewis, Department Chair



3:45 p.m. Featured Talk: Prime Ideal Pictures

Professor Sylvia Wiegand, University of Nebraska-Lincoln
Past President of the Association for Women in Mathematics

4:40 p.m. Presentations - Session 1

Moderated by Professor Judy Walker

Partitions Which Are Simultaneously t_1 - and t_2 -cores

Jackie Kohles, University of Nebraska-Lincoln

The Challenge of Remediation

Shawna M. Jensen, California State University-Chico

A Parallel Implementation of the All Pairs Shortest Paths Algorithm

Lisa Grignon, Elon College (NC)

7:00 p.m. Banquet - Cornhusker Hotel

Professor Judy Walker will discuss the Department's [Presidential Award](#) and "The Road to the White House"



Saturday, March 6, 1999

8:00 a.m. Coffee, Juice and Rolls

8:30 a.m. Presentations - Session 2

Moderated by Professor Roger Wiegand

Calculating the Continued Fraction of the Cube Root of 2

Brandy Stigler, New Mexico State University

Cwatssets: A New Algebraic Structure

Jennifer Paulhus, College of the Holy Cross (MA)

Invariant Equations of Poisson Varieties

Holly Hauschild, University of Wisconsin-Eau Claire

The Geometry of $PSL_2(\mathbb{Z}[i])$

Betsy Cassells, Lafayette College

Implementation of an Algorithm to Calculate the Class Number

Monica Castro-Simmons, University of Puerto Rico-Humacao

10:10 a.m. Break

10:30 a.m. Presentations - Session 3

Moderated by Professor Susan Hermiller

Proving the Unprovable: Godel's Incompleteness Theorem

Anna Varvak, University of Massachusetts-Boston

New Term Weighting Formulas for Information Retrieval





Erica Chisholm, University of Delaware

Grobner Basis Conversion Methods for the Implicitization of Bisector Surfaces

Paula Rivera-Torres, University of Puerto Rico-Humacao

Whitehead Automorphisms and Equivalent Words

Rebecca Virnig, University of Chicago

12:00 Noon Lunch

1:30 p.m. Presentations - Session 4

Moderated by Professor Dan Nettleton

Statistical Study of River Stream Flow Time Series in Puerto Rico

Wilnelia Hernandez Castro, University of Puerto Rico-Humacao

Estimating Confidence Intervals for Multiple Binomial Probabilities

Tanzy Mae Love, California State University-Hayward

A Mathematical Model for Assessing Anti-Retroviral Therapy on HIV Populations

Meera Lea Pradhan, University of Texas-Austin

Nontraditional Credit Risk Management Tools

Julie Berg, Carnegie Mellon University

An Investigation into an Inhibitory Neural Feedback Loop

Angela Gallegos, New York University



3:10 p.m. Break

3:30 p.m. Presentations - Session 5

Moderated by Professor Lisa Orlandi-Korner

Exact N-Step Domination in Graphs

Lauren Williams, Harvard University

The Neighbor Joining Method of Evolutionary Tree Reconstruction

Sara Grossman, Smith College (MA)

Fractional Domination Numbers of Grid-Type Graphs

Anna Stevens, New College (FL)



4:30 p.m. Panel - Choosing a Graduate School

Panelists:

- Carolyn Gordon, Dartmouth College,
- Lisa Orlandi-Korner, Ph.D. Cornell 1998, now at UNL
- Victoria Sapko, Graduate Student, UNL
- Theresa Strei, Graduate Student, UNL





Moderator: Professor Roger Wiegand

5:30 p.m. End of the Day Reception

A chance to meet the panelists.

Sunday, March 7, 1999

8:00 a.m. Coffee, Juice and Rolls

8:30 a.m. Featured Talk: You can't hear the shape of a drum

Professor Carolyn Gordon, Dartmouth College

9:40 a.m. Presentations - Session 6

Moderated by Professor Allan Donsig

Analysis of Linear Algebra Solutions of Advanced Variations of the Game 'Lights Out' (Tiger Electronics, Inc.)

Andrea Saunders, New College (FL)

The Hadamard Core for Totally Non-Negative Matrices

Alissa Crans, University of the Redlands (CA)

Elliptical Galaxies in Weyl Gravitational Theories

Tamil Maldonado Vega, University of Puerto Rico-Humacao

Divisibility Properties of the Binomial Coefficients

Ana Louisa Ruiz, Mills College (CA)

11:20 a.m. End of Conference



Who Was There?

Listing of Participants



- [Berg, Julie](#), PNC Bank Corp
- [Bowers, Cynthia](#), College of William and Mary
- [Cassells, Betsy](#), Lafayette College
- [Castro, Wilnelia Hernandez](#), University of Puerto Rico-Humacao
- [Castro-Simmons, Monica](#), University of Puerto Rico-Humacao
- [Chapo, Laura](#), University of Nebraska-Omaha
- [Chisholm, Erica](#), University of Delaware
- [Costo, Daniella](#), California State University, Sacramento
- [Crans, Alissa](#), University of Redlands



- [Farthing, Cindy](#), Hiram College
- [Gallegos, Angela](#), New York University
- [Gordon, Carolyn](#), Dartmouth College
- [Grignon, Lisa](#), Elon College
- [Grossman, Sara](#), Smith College
- [Hauschild, Holly](#), University of Wisconsin-Eau Claire
- [Heppner, Jenny](#), Grinnell College
- [Jensen, Shawna M.](#), California State University, Chico
- [Johnson, Jackie](#), University of Texas at Austin
- [Kohles, Jackie](#), University of Nebraska-Lincoln
- [Langsam, Paula](#), Grinnell College
- [Love, Tanzy Mae](#), California State University, Hayward
- [McCammon, Alicia](#), UCLA
- [McNamara, Kelly L.](#), University of Nebraska-Omaha
- [Millar, Andrea](#), Southern Illinois University at Carbondale
- [Moorjani, Anita](#), U.C. Berkeley
- [Paulhus, Jennifer](#), College of the Holy Cross
- [Pradhan, Meera Lea](#), University of Texas at Austin
- [Rivera-Torres, Paula](#), University of Puerto Rico-Humacao
- [Ruiz, Ana Louisa](#), Mills College
- [Rooney, Natalie](#), University of Texas at Austin
- [Santana-Vega, Everilis](#), University of Puerto Rico-Humacao
- [Saunders, Andrea](#), New College of the University of South Florida
- [Scaglione, Elizabeth](#), Southern Illinois University at Carbondale
- [Stevens, Anna](#), New College of the University of South Florida
- [Stigler, Brandy](#), New Mexico State University
- [Sutherland, Shelly](#), University of Nebraska-Omaha
- [Thimm, Lisa](#), Bethel College
- [Varvak, Anna](#), University of Massachusetts, Boston
- [Vega, Tamil Maldonado](#), University of Puerto Rico-Humacao
- [Virnig, Rebecca](#), University of Chicago
- [Williams, Cat](#), Grinnell College
- [Williams, Lauren](#), Harvard University
- [Wilson, Annie](#), Grinnell College

University of Nebraska Faculty

- [Brittenham, Mark](#)



- [Donsig, Allan](#)
- [Hermiller, Susan](#)
- [Hines, Wendy](#)
- [Lahiri, Partha](#)
- [Lewis, Jim](#)
- [Logan, David](#)
- [Marley, Tom](#)
- [Nettleton, Dan](#)
- [Orlandi-Korner, Lisa](#)
- [Orr, John](#)
- [Peterson, Al](#)
- [Radcliffe, Jamie](#)
- [Walker, Judy](#)
- [Wiegand, Roger](#)
- [Wiegand, Sylvia](#)
- [Woodward, Gordon](#)

University of Nebraska Graduate Students

- [Hoffacker, Jo](#)
- [Johnson, Lisa](#)
- [Langdon, Jennifer](#)
- [Leuschke, Graham](#)
- [Nelson, Patricia](#)
- [Sapko, Victoria](#)
- [Saydam, Serpil](#)
- [Strei, Theresa](#)
- [Taylor, Krista](#)

University of Nebraska Undergraduate Students

- Basler, Heidi
- Bernadt, Keri
- Brehm, Kimberly
- Keeler, Crystal Lynn
- Ladd, Taryne
- Lloyd, Tanya Felicia
- Meyer, Sadie
- Nelson, Beth
- Rolle, Yolanda A.
- Zadina, Debbie



Above are (Front Row): Wilnelia Hernandez Castro, Monica Castro-Simmons, Everilis Santana-Vega; (Back Row): Tamil Maldono Vega, Paula Rivera-Torres (all from the University of Puerto Rico-Humacao), and Shawna Jensen (California State University - Hayward). Below are the same group plus the UNL Graduate Chair Roger Wiegand (at his home).



People:

(Top to Bottom)

1. Sylvia Wiegand
2. Jackie Kohles
3. Shawna Jensen
4. Shawna Jensen
5. Lisa Grignon
6. Brandy Stigler
7. Jennifer Paulhus
8. Holly Hauschild
9. Betsy Cassells
10. Monica Castro-Simmons
11. Dan Nettleton
12. Wilnelia Hernandez Castro
13. Tanzy Mae Love
14. Meera Lea Pradhan
15. Meera Lea Pradhan
16. Julie Berg
17. Angela Gallegos
18. Angela Gallegos

For Further Information

Nebraska Conference for Undergraduate Women in Mathematics
 Department of Mathematics and Statistics
 University of Nebraska-Lincoln
 Lincoln, NE 68588-0323
 Phone: (402) 472-5992
 e-mail: womenws@math.unl.edu

19. Lauren Williams
20. Anna Stevens
21. Jackie Kohles, Victoria
Sapko and Lisa
Grignon
22. Alissa Crans
23. Tamil Maldonado
Vega
24. Anna Luisa Ruiz