

# MAA-COLOMATYC-CCTM CONTRIBUTED SESSION SCHEDULE

Friday, 21 April

	Pre-Calculus Curriculum Reform Moderator: Ernest "Bud" Allen ROOM 105	Student Session Moderator: Gil Orr ROOM 127	MAA Session Moderator: Roger Johnson ROOM 126	COLOMATYC /MAA Session Moderator: Gwen Wiley ROOM 108	COLOMATYC /MAA Session Moderator: Gwen Wiley ROOM 108
2:15 - 2:30	<i>Quantitative Literacy: Mathematics for Citizenship in the 21st Century</i> William L. Briggs, CU-Denver Jeff Bennett, CU-Boulder	<i>An Investigation Into the Invertibility of a Special Kind of Matrix</i> Victor Meyers, USC	<i>Stability in Nonlinear Delay - Differential Equations</i> Jim Louisell, USC	<i>Teaching L-Grammars in Discrete Mathematics</i> Ernest J. Cisneros, Metro	TOPI Propo to the
2:35 - 2:50	<i>Motivational Teaching Techniques Involving Connections Between Mathematics and Art</i> Ray Tennant, USC	<i>Whales and Krill: A Study in Volterra's Predator-Prey Equations</i> Jessica Flint, Colorado College	<i>Filtering with the Fast Fourier Transform</i> William D. Emerson, Metro	<i>Industrial Problems as a Soul for the Body of Undergraduate Mathematics: Examples from Orbit Transfer Optimization and Medical Imaging</i> Bruce Lundberg, USC	
2:55 - 3:10	<i>College Algebra in Context: Implementing Algebra Reform at a University</i> Ken Klopfenstein, CSU Darel Hardy, CSU	<i>On Finitely Generated Principal Ideal Domains</i> Stephen Tempest Aldrich, USC	<i>Testing Nonlinear Regression Models Using Cubic Spline Smoothing</i> Rianto A. Djojogugito, SDSMT	<i>A Simplified Sperner's Lemma</i> Steve Leth, UNC	
	Student Session Moderator: Steve Bronn ROOM 105	Student Session Continuation	MAA Session Continuation	COLOMATYC /MAA Session Continuation	
3:25 - 3:40	<i>Explicit formulas for the sums of powers of integers, Bernoulli and Euler Polynomials, and other combinatorial functions</i> Carl Robert Gibbons, DU	<i>Schroder-Bernstein Groups</i> Dana Cortez, USC	<i>Denseness of the Generalized Eigenvectors of a Discrete Operator in a Banach Space</i> Janet Burgoyne, SDSMT	<i>Data Analysis in an Introductory Statistics Course</i> Patrick Enright, Arapahoe Community College	
3:45 - 4:00	<i>Back in the Saddle Again?</i> Tina Drummond, USC	<i>Non-Standard Dice</i> Barry Balof, Colorado College	<i>Introduction to Elliptic Curve Cryptography</i> Pete Morris, University of Wyoming		

Saturday, 22 April

	Student Session Moderator: Tom Kelley ROOM 125	MAA Session Moderator: Roger Johnson ROOM 126	COLOMATYC/MAA Session Moderator: Paul Chacon ROOM 108	CCTM Elementary School Session ROOM 109	CCTM Middle School Session ROOM 127	COLOMATYC /MAA Session Moderator: Gwen Wiley ROOM 108
10:10 - 10:25	<i>Application of Gambler's Ruin</i> Paul Vercler, Metro	<i>A Visual Representation of the Classification Theorem for 2-D Surfaces</i> Tensia Soto-Johnson, UNC/USC Lara Schmidt, UNC	<i>Some Approaches to Teaching Calculus II</i> Patricia Hauss, Arapahoe Community College Jeff Berg, Arapahoe Community College	<i>Games for Elementary Motivation</i> Nancy Swartz, Manzanola ES	<i>Five Years of Middle School Projects: From Development Through Presentation and Assessment</i> Joe Modica, Hoehne MS	Integ Puebl Sever Pat Caro Don
10:30 - 10:45	<i>Super Secret Spy Kit</i> Rhainnie Sellman, USC	<i>Four the Hard Way</i> Leslie E. Shader, University of Wyoming				
10:50 - 11:05	<i>Decomposition of Regression Models</i> Kenneth Amend, Metro Christopher Gutierrez, Metro Gretchen Kulver, Metro	<i>Calculation of Three Dimensions</i> Mary Hughes Treder, University of Wyoming	<i>Experiences Using Portfolios in a Calculus III Class</i> Karen Whitehead, SDSMT		<i>Skymath Project</i> Bev Lynds, University Corporation for Atmospheric Research	
11:10 - 11:25		<i>Using Global Optimization to Discover Icosahedral Structures</i> Jerry Shultz, Metro	<i>Introduction and Use of Rubrics in a University Mathematics Course</i> A. Rose Shaw, Education and Business Consultant Patricia R. Velicky, UNC			
2:30 - 4:30	MAA MINICOURSE: <i>Teaching Environmental Numeracy to Undergraduates</i> Martin Walter University of Colorado, Boulder			2:30 - 3:30 <i>Implementing an Elementary School-wide Problem Solving and Communication Assessment</i> Patti Capps, Montview ES	<i>The Four Period Day in Middle School Works at Pueblo Roncalli</i> Carole Partin, Roncalli MS	Inter Instr Kirk Eas Car Str

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<i>An Investigation Into the Invertibility of a Special Kind of Matrix</i> Victor Meyers, USC	<i>Stability in Nonlinear Delay - Differential Equations</i> Jim Louisell, USC	<i>Teaching L-Grammars in Discrete Mathematics</i> Ernest J. Cisneros, Metro	TOPIC: <i>Proposed Changes and Additions to the Core Curriculum</i>
<i>Whales and Krill: A Study in Volterra's Predator-Prey Equations</i> Jessica Flint, Colorado College	<i>Filtering with the Fast Fourier Transform</i> William D. Emerson, Metro	<i>Industrial Problems as a Soul for the Body of Undergraduate Mathematics: Examples from Orbit Transfer Optimization and Medical Imaging</i> Bruce Lundberg, USC	
<i>On Finitely Generated Principal Ideal Domains</i> Stephen Tempest Aldrich, USC	<i>Testing Nonlinear Regression Models Using Cubic Spline Smoothing</i> Rianto A. Djojosingito, SDSMT	<i>A Simplified Sperner's Lemma</i> Steve Leth, UNC	
Student Session Continuation	MAA Session Continuation	COLOMATYC /MAA Session Continuation	
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MAA Session Moderator: Roger Johnson ROOM 126	COLOMATYC/MAA Session Moderator: Paul Chacon ROOM 108	CCTM Elementary School Session ROOM 109	CCTM Middle School Session ROOM 127	CCTM High School Session ROOM 105
<i>A Visual Representation of the Classification Theorem for 2-D Surfaces</i> Tensia Soto-Johnson, UNC/USC Lara Schmidt, UNC	<i>Some Approaches to Teaching Calculus II</i> Patricia Hauss, Arapahoe Community College Jeff Berg, Arapahoe Community College	<i>Games for Elementary Motivation</i>  Nancy Swartz, Manzanola ES	<i>Five Years of Middle School Projects: From Development Through Presentation and Assessment</i> Joe Modica, Hoehne MS	<i>Integrated Mathematics at Pueblo South High School: Several Working Models</i>  Pat Mara, Pueblo South HS Carol Nachtigall, Pueblo South HS Donna Cox, Pueblo South HS
<i>Four the Hard Way</i> Leslie E. Shader, University of Wyoming				
<i>Calculation of Three Dimensions</i> Mary Hughes Treder, University of Wyoming	<i>Experiences Using Portfolios in a Calculus III Class</i> Karen Whitehead, SDSMT			
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**COURSE:** *Teaching Environmental Numeracy to Undergraduates*  
Martin Walter  
University of Colorado, Boulder

2:30 *Implementing an Elementary School-wide Problem Solving and Communication Assessment*  
Patti Capps, Montview ES

*The Four Period Day in Middle School Works at Pueblo Roncalli*  
Carole Partin, Roncalli MS

*Interactive Video in Math Instruction, Now!!!*  
Kirk Brittain,  
East Central BOCES  
Carrie Shellenberger,  
Strasburg Schools

**MAA-COLOMATYC-CCTM Joint Meeting**  
**University of Southern Colorado**  
**April 21-22, 1995**

**Friday, 21 April**

- 10:30-12:45 MAA Executive Committee Meeting, Occhiato Center, Trailridge Room
- 11:30-12:45 Department Chairs' Luncheon, Occhiato Center, President's Dining Room
- 12:30-4:00 Publishers' Exhibit, Physics/Math Building, Room 116
- 12:30-3:30 Registration, Physics/Math Building, Lobby
- 1:00-1:15 Opening Remarks, Occhiato Center, Ballroom Central
- 1:15-2:00 **DISTINGUISHED TEACHING AWARD LECTURE**  
**Occhiato Center, Ballroom Central**  
*Slates, Blackboards, Greenboards, Whiteboards, Overheads, Computers, Multimedia:  
Can We Possibly Survive in Such a Changing World?*  
**PROF. DUANE PORTER, 1994 DTA RECIPIENT**  
**UNIVERSITY OF WYOMING**
- 2:15-4:00 MAA, COLOMATYC Contributed Paper Sessions, Physics/Math Building
- 2:15-4:00 Curriculum Reform Poster Session, Physics/Math Building, Room 121  
*RMTEC Progress Report:* Jeff Farmer (UNC), Darel Hardy (CSU) & Jim Loats (Metro)  
*Calculus Reform at UNC:* Ricardo Diaz (UNC) & Steve Leth (UNC)
- 4:15-5:15 **POLYA LECTURE**  
**Life Science Auditorium, Room 105**  
*Witnesses for composite numbers*  
**PROF. CARL POMERANCE**  
**UNIVERSITY OF GEORGIA**
- 5:20-6:00 MAA Department Representatives Meeting, Life Science, Room 103
- 6:00-7:00 **RECEPTION, Occhiato Center, Hearthwell Room**  
**Sponsored by University of Southern Colorado College of Science and Mathematics**
- 7:00-10:00 **BANQUET, Occhiato Center, Ballroom East**  
**MAA Awards Presentation**  
**Invited Banquet Address:** *Industrial Mathematics for Fun and Profit*  
**PROF. MARTHA SIEGEL**  
**TOWSON STATE COLLEGE, MARYLAND**

**Saturday, 22 April**

- 7:00-7:45 MAA Department Representatives Breakfast, location TBA at Friday's Dept. Rep. Meeting
- 8:30-12:30 Publishers' Exhibit, Physics/Math Building, Room 116
- 8:00-9:30 Registration, Physics/Math Building, Lobby
- 8:00-8:50 Rocky Mountain Section Business Meeting, Life Science Auditorium, Room 105
- 9:00-9:55 **KEYNOTE ADDRESS**  
**Life Science Auditorium, Room 105**  
*"Populating" Mathematics Classrooms*  
**PROF. MARTHA SIEGEL**  
**TOWSON STATE COLLEGE, MARYLAND**
- 10:10-11:25 MAA, COLOMATYC, CCTM Contributed Paper Sessions, Physics/Math Building  
Curriculum Reform Poster Session, Physics/Math Building, Room 121 (See Friday's Program)
- 11:35-1:00 *Mathematics Education in 1995: A Kindergarten through University Interaction*  
**Life Science Auditorium, Room 105**  
Moderator: Frieda Holley, Metropolitan State College of Denver  
Fran Berry, Jefferson County Public Schools and *CONNECT* Principal Investigator

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 Tom Hibbs, Cheraw Secondary Schools  
 Colleen Jorgensen, Red Rocks Community College  
 Marge Lindskög, Pueblo Eva Baca Elementary School and SADI Council Member  
 Jim Loats, Metropolitan State College of Denver
- 1:00-2:15 **Lunch, Occhiato Center, Ballroom East**
- 2:30-3:30 CCTM Contributed Sessions, Physics/Math Building
- 2:30-4:30 **MAA Minicourse, *Teaching Environmental Numeracy to Undergraduates***  
**Martin Walter, University of Colorado - Boulder**  
**Physics/Math Building, Room 126**