

**MAA MD-DC-VA Section
Spring 2009 Meeting, April 17 and 18**

**University of Mary Washington
Fredericksburg, Virginia**

Friday, April 17

Registration, reception, banquet, and banquet address will take place in the Woodard Campus Center (WCC). The Friday workshop will be held in the Jepson Science Center (JSC).

Friday activities for Section NExT will be held in Meeting Room 1 of the WCC.

Time	Location	Event
2:30 – 3:45	WCC Meeting Room 4	Section Officers Meeting
4:00 – 6:00	JSC 108	Workshop: <i>Geogebra</i> Mike May, St. Louis University
6:00 – 7:00	WCC Red Room	Registration and Reception
7:00 – 8:00	WCC Great Hall	Welcoming Remarks: <i>Rosemary Barra</i> Dean of the College of Arts and Sciences Banquet Dinner
8:00 – 9:00	WCC Great Hall	Banquet Address: <i>What I've Learned in 18+ Months on the Job</i> Robert Vallin, Slippery Rock University MAA Associate Director for Student Activities

Saturday, April 18

Registration, refreshments, contributed talks, and the MAA book sale are in Trinkle Hall (TH). Invited talks and the meeting of the membership are in the Woodard Campus Center (WCC). Lunch is in Seacobeck Hall.

Contributed paper sessions include parallel professional (PRO) and student (STU) talks. Talks are designated next to each title.

Saturday activities for Section NExT will be held in TH B36.

Time	Location	Event	
8:00 – noon	TH Rotunda	Registration	
8:00 – noon	TH Rotunda	Refreshments	
8:00 – 3:30	TH Rotunda	MAA Book Sale/A+ Compass Exhibit	
8:20 – 8:40	TH	Contributed Papers, Session 1	
	106A	<i>Computing Probability Generating Functions of Coin Flipping and Its Generalization</i> Cherng-tiao Perng, Norfolk State University	PRO
	140	<i>Sums of Reciprocals of Polynomials over the Field $F_2[x]$</i> Kenneth Hicks, Ohio University	PRO
	204	<i>Taylor Series Without High Order Differentiation</i> Stephen Lucas, James Madison University	PRO
	210	<i>Fast Solvers for Models of Fluid Flow</i> P. Aaron Lott, National Institute of Standards and Technology	PRO
8:45 – 9:05	TH	Contributed Papers, Session 2	
	B6	<i>Thurston's Conjecture-Topology Change and the Universe</i> George DeRise, Thomas Nelson Community College	PRO
	B7	<i>Retracts in Category Theory</i> William Ella, University of Mary Washington Faculty Advisor: Randall Helmstutler	STU
	B52	<i>Mathematical Modeling of Non-linear Amplifiers</i> Robert Hembreer, Hampden-Sydney College Faculty Advisor: Marcus Pendergrass	STU
	106A	<i>Applications of the Central Limit Theorem</i> Owen Byer, Eastern Mennonite University	PRO
	140	<i>On minimizing users' cost in a public transit system</i> Allison Chelsea & Hughes Arthur, Mount St. Mary's University Faculty Advisor: Luca Petrelli	STU

	204	<i>On the Intersection of Domination and Experimental Mathematics</i> Robert Rubalcaba, Department of Defense	PRO
	210	<i>A Mathematical Consideration of the Single Pendulum</i> James Sochacki, James Madison University	PRO
9:10 – 9:30	TH	Contributed Papers, Session 3	
	B6	<i>Topological Consequences of an Algebraic Representation for P</i> G. Edgar Parker, James Madison University	PRO
	B7	<i>Designing Codes to Fit Your Needs: An Investigation Into the Construction of BCH Codes</i> Jacob Farinholt, University of Mary Washington Faculty Advisor: Keith Mellinger	STU
	B52	<i>Combinatorics of Waterfront Compositions</i> David Weirich, Virginia Wesleyan College Faculty Advisor: Dante Manna	STU
	106A	<i>On the summation of subseries in closed form</i> Hongwei Chen, Christopher Newport University	PRO
	140	<i>F Chomp: A Variation of Chomp?</i> Andrew MacLaughlin, St. Mary's College of Maryland Faculty Advisor: Alex Meadows	STU
	204	<i>Tom Kirkman and his Electric Schoolgirls, Part II</i> Ezra Brown, Virginia Tech	PRO
	210	<i>Novel Pedagogical Resources Based on Protein Structure Analysis</i> Majid Masso, George Mason University	PRO
9:50 – 10:55	WCC Great Hall	Welcoming Remarks: Judy G. Hample President of the University of Mary Washington Invited Address: The Geometry of 2x2 Matrices William Goldman, University of Maryland	
11:00 – 11:50	WCC Great Hall	Meeting of the General Membership	
12 – 1:10	Seacobeck Hall	LUNCH Meet the Author Session: Ask questions and discuss writing, editing, publishing with several authors from this section	
1:15 – 2:10	WCC Great Hall	Student Jeopardy Competition	
2:00 – 3:30	TH 138	Student Poster Competition	
		<i>Mathematics in India</i> Jillian Dixon, Randolph-Macon College Faculty Advisor: Chirashree Bhattacharya	

		<i>A Polynomial Analogue of the Collatz Problem and its Fractal Characteristics</i> Brian Kim, Marriotts Ridge High School Faculty Advisor: Kenneth Hicks (Ohio Univ.)	
		<i>Some New Accurate Approximations to e</i> Brooke Rowe, Christopher Newport University Faculty Advisor: Hongwei Chen	
		<i>Audio Compression Using The Fourier Transform</i> Alex Smith, Hampden-Sydney College Faculty Advisor: Marcus Pendergrass	
2:00 – 3:00	TH Rotunda	Coffee/Tea/Water	
2:15 – 2:35	TH	Contributed Papers, Session 4	
	B6	<i>Simple Ciphers for Small Secrets</i> William P. Wardlaw, retired	PRO
	B7	<i>The weight enumerator for a class of LDPC codes defined by hyperovals</i> Katie L. Hunsberger, University of Mary Washington Faculty Advisor: Keith Mellinger	STU
	B52	<i>Rules of the Road Around a Roundabout</i> Toby Shearman and Patrick Lafond, Virginia Tech COMAP Advisor: Henning S. Mortveit	STU
	106A	<i>Introducing Commutative Algebra to Academically Diverse Populations</i> Boyd Coan, Norfolk State University	PRO
	140	<i>A non-elliptical introduction to elliptic curve cryptography</i> Andrew Wills, Randolph-Macon College Faculty Advisor: Adrian Rice	STU
	204	<i>Fourier Transforms and Signal Processing : A Theme for an Applied Mathematics Course</i> Marcus Pendergrass, Hampden-Sydney College	PRO
	210	<i>Analyzing Self-Congruence Using Bristle Sets</i> Steve Morse, retired	PRO
2:40 – 3:00	TH	Contributed Papers, Session 5	
	B6	<i>Improved Covariance Eigenvalue Estimates and Line Estimation</i> Jonathan Stallings, University of Mary Washington Faculty Advisor: Debra L. Hydorn	STU
	B7	<i>Pseudospherical Cone Points</i> Brian Tennyson, St Mary's College of Maryland Faculty Advisor: Ivan Sterling	STU
	B52	<i>"Watts" the Deal with American Telephones?</i> Michael DeWitt, Nolan Skochdopole and Aashish Gadani, Clover Hill High School COMAP Advisor: Peter Peterson	STU

	106A	<i>Fractals with Google Sketchup</i> B. Sidney Smith, Radford University	PRO
	140	<i>Jump Shot Mathematics</i> Howard Penn, U.S. Naval Academy	PRO
	204	<i>A 200-Question, Campus-Wide Math Contest</i> Brian Heinold, Mount St. Mary's University	PRO
	210	<i>A Brief History of Circle Packing</i> Eve Torrence, Randolph-Macon College	PRO
3:05 – 3:25	TH	Contributed Papers, Session 6	
	B7	<i>Open Discussion on College Mathematical Preparedness of High School Students, Part I</i> Lee May, Salisbury University (moderator)	PRO/ STU
	B52	<i>The Cell Phone Revolution</i> Patrick O'Neil, Evan Menchini, and Will Frey, Virginia Tech COMAP Advisor: John Rossi	STU
	106A	<i>Untangle - Knots and Games</i> Alex Meadows, St. Mary's College of Maryland	PRO
	140	<i>Rating the PGA Golfers</i> Roland Minton, Roanoke College	PRO
	204	<i>Developing a new mathematics travel course - challenges, rewards and lessons learned</i> Chiru Bhattacharya, Randolph-Macon College	PRO
	210	<i>Barycentric Coordinates and its Application</i> Ming Fang, Norfolk State University	PRO
3:40 – 4:35	WCC Great Hall	Invited Address: <i>The Cointreau Caviar Conundrum</i> Katherine Socha, St. Mary's College of Maryland	
4:40 – 5:00	WCC Great Hall	Undergraduate Prize Session	