Mathematical Association of America
MD-DC-VA Section, April 15-16, 2016
Montgomery College – Germantown, Maryland
Schedule of Speakers

Friday, April 15

Time	Location	Event
2:30 – 3:50	200 Bioscience Education Center	**Section Officers Meeting**
4:00 – 6:00	151/152 Bioscience Education Center	**Workshop:** *Introduction to Process Oriented Guided Inquiry Learning (POGIL) in Mathematics Classrooms* **Laurie Lenz** Marymount University
6:00 – 7:00	First-floor Lobby Bioscience Education Center	**Registration**
6:00 – 7:00	151/152 Bioscience Education Center	**Reception**
7:00 – 8:00	151/152 Bioscience Education Center	**Welcoming Remarks** **Dr. DeRionne P. Pollard, President** Montgomery College **Banquet Dinner**
8:00 – 9:00	151/152 Bioscience Education Center	**Banquet Address:** *Rays, Waves and Rainbows: A brief tour through some mathematical history* **John Adam** Old Dominion University

Saturday, April 16

Saturday morning activities for Section NExT will be held in Room 107, Bioscience Education Center.

Time	Location	Event
8:00 – noon	First-floor Lobby Bioscience Education Center	**Registration**
8:00 – 9:00	First-floor Lobby Bioscience Education Center	**Coffee / Tea / Water**
8:00 – 3:30	First-floor Lobby Bioscience Education Center	**MAA Book Sale**

Schedule of Speakers

8:10 – 8:30		**Contributed Papers, Session 1**
	110 Bioscience Education Center	Hongwei Chen, Christopher Newport University *MAA Journal Problem Solving --- The great value in teaching, learning and research*
	157 Bioscience Education Center	Mary Wall, Montgomery College *Calculating the Surface Area of Smooth Manifolds Embedded in 4 Dimensions*
	158 Bioscience Education Center	Paul Janiczek, Virginia Military Institute *John Conway's Game of Life Implemented in MS Excel*
	160 Bioscience Education Center	Student: Tyler Hoffman, McDaniel College *Hausdorff Dimension of Generalized Fibonacci Word Fractals*
	162 Bioscience Education Center	Student: Chris McEligot, St. Mary's College of Maryland *Examining Elliptic Curves for Cryptographic Use*
	163 Bioscience Education Center	Student: Zachary Pisano, Loyola University Maryland *A Multivariate Statistical Analysis of Bullet Velocity*
8:35 – 8:55		**Contributed Papers, Session 2**
	110 Bioscience Education Center	Jennifer Magee, University of Mary Washington *Calculus: something fun for high school students to do on a Saturday*
	157 Bioscience Education Center	Prasad Senesi, The Catholic University of America *An algebraic approach to voting manipulation*
	158 Bioscience Education Center	Randall E. Cone, Salisbury University *Video Games and Mathematics: Visualizing Automata*
	160 Bioscience Education Center	Student: Jared Gruber, Virginia Military Institute Student: Connor Norris, Virginia Military Institute *Analysis of Water Conservation and Usage in Drought Areas*
	162 Bioscience Education Center	Student: Amos Kern-Perets, St. Mary's College of Maryland *Commercializing Charity: Agent Based Dynamics of Digital Crowdfunding*
	163 Bioscience Education Center	Student: Christopher Broll, Loyola University Maryland *Exact Values of Gamma Star Function*
9:00 – 9:20		**Contributed Papers, Session 3**
	110 Bioscience Education Center	Jerome Dancis, University of Maryland *The international PISA Math Test shows that students need instruction in multi-step Arithmetic word problems.*
	157 Bioscience Education Center	Jathan Austin, Salisbury University *A Problem in Three-Digit Addition*
	158 Bioscience	Raina Robeva, Randolph-Macon College *Boolean models in population biology? You better believe*

	Education Center	*it!*
	160 Bioscience Education Center	Student: Emily Adams, Virginia Military Institute Student: Will Johnston, Virginia Military Institute *Space Junk Removal*
	162 Bioscience Education Center	Student: Kyle Flanagan, St. Mary's College of Maryland *Algebraic Dynamics of a One-Parameter Family of Cubic Rational Functions*
	163 Bioscience Education Center	Student: Noah Watson, James Madison University *Examples of Large Gaps in Contingency Tables*
9:05 – 9:40	107 Bioscience Education Center	**Panel 1 -** *Inquiry Based Learning in the MD-DC-VA Section* Organizer: Cassie Williams, James Madison University Organizer: Amy Ksir, United States Naval Academy Panelists: Mitch Keller, Washington and Lee University Amy Ksir, United States Naval Academy Pádraig McLoughlin, Kutztown University of Pennsylvania Cassie Williams, James Madison University
9:25 – 9:45		**Contributed Papers, Session 4**
	110 Bioscience Education Center	Abdinur Ali, Norfolk State University Chung-Chu (George) Hsieh, Norfolk State University Mushtaq Khan, Norfolk State University *Hardware Security Vulnerabilities and Cryptanalysis of Modern Data Encryption Algorithms*
	157 Bioscience Education Center	Nicholas Martin, Shepherd University *An elementary approach to linear recursions*
	158 Bioscience Education Center	Eva Strawbridge, James Madison University *Transport of fluid by rotating helices at a microscale level*
	160 Bioscience Education Center	Student: Ryan Poffenbarger, Virginia Military Institute *Hungarian Algorithm and Image Mosaicking*
	162 Bioscience Education Center	Student: Caleb Svobodny, St. Mary's College of Maryland *Vennim!: A New Intersection of Sets and Games*
	163 Bioscience Education Center	Student: Samantha Maillie, Salisbury University *A Review of Non-Small Cell Lung Cancer Post-Treatment Follow-up Imaging Procedures with PET/CT Scans Versus CT scans and the Effect on Patient Survival*
9:55 – 11:05	151/152 Bioscience Education Center	**Welcoming Remarks** **Margaret Latimer, Vice President and Provost** Montgomery College **Invited Address:** *A Potpourri of Mathematics in Popular Games* **David Taylor**

		Roanoke College
11:15–12:05	151/152 Bioscience Education Center	**Meeting of the General Membership**
11:15–12:05	114 Bioscience Education Center	**Radical Dash Teams First Meeting**
12:15 – 1:00	First-floor Lobby Bioscience Education Center	**LUNCH**
1:00 – 2:00	151/152 Bioscience Education Center	**Student Jeopardy Competition**
2:00 – 3:00	First-floor Lobby Bioscience Education Center	**Coffee / Tea / Water**
2:10 – 3:25	114 Bioscience Education Center	**Radical Dash Final Event** (20 minutes per team, schedule determined at the first meeting earlier in the day)
2:10 – 3:00	151/152 Bioscience Education Center	**Student Poster Session** See Poster Session Schedule for a List of Presenters
2:15 – 2:50	107 Bioscience Education Center	**Panel 2 -** *The Mathematical Preparation of Future High School Math Teachers* Organizer: Bob Sachs, George Mason University Panelists: David Carothers, James Madison University Mary Nelson, George Mason University Katherine Socha, Park School, Baltimore MD
2:15 – 2:35		**Contributed Papers, Session 5**
	110 Bioscience Education Center	Amy Shell-Gellasch, Montgomery College *Descriptive Geometry and the Jullien Models*
	157 Bioscience Education Center	Caroline Melles, United States Naval Academy *Non-special divisors on graphs*
	158 Bioscience Education Center	Roland Minton, Roanoke College *Modeling March Madness*
	160 Bioscience Education Center	Student: Ashley Paul, St.Mary's College Of Maryland *That's Not How I Learned It! Bridging the teacher/parent gap.*
	162 Bioscience Education Center	Student: Codie Lewis, James Madison University *Numerical Data Regarding the Cohen-Lenstra Conjectures on Real Quadratic Fields*
	163	Student: Chelsey Clement, Salisbury University

	Bioscience Education Center	Student: Emily Marinucci, Salisbury University *Analysis of Best Subsets for Transfer Payloads*
2:40 – 3:00		**Contributed Papers, Session 6**
	110 Bioscience Education Center	Brant Jones, James Madison University *Developing problems for a history of math course*
	157 Bioscience Education Center	Bud Brown, Virginia Tech *Monthly Problem 3173, Samuel Beatty, and 1/p + 1/q = 1*
	158 Bioscience Education Center	Student: Christopher Lloyd, University of Mary Washington *The Ko-Lee Key Exchange Protocol with Generalized Dihedral Groups*
	160 Bioscience Education Center	Student: Ian Miller, St. Mary's College of Maryland Student: Ryan Johnson, St. Mary's College of Maryland *Nice Games: Partizan Games With an Impartial Muller Twist*
	162 Bioscience Education Center	Student: James Dean, Hood College *Optimal Digital Filtering Techniques for the Analysis of Pore Water Pressure*
	163 Bioscience Education Center	Student: William Oehlbeck, Salisbury University Student: Jarell Hackett, Salisbury University *Parallel Computation in Graph Traversal Algorithms*
2:55 – 3:25	107 Bioscience Education Center	**Panel 3 -** *Calculus and the HS/College Interface* Organizer: Bob Sachs, George Mason University Panelists: Caren Diefenderfer, Hollins University Roland Minton, Roanoke College Mary Nelson, George Mason University
3:05 – 3:25		**Contributed Papers, Session 7**
	110 Bioscience Education Center	Heather Moon, St. Mary's College of Maryland *Heat Flow Inspiring Eigenstuff and Diagonalizability*
	157 Bioscience Education Center	Thomas Sonnabend, Montgomery College *The (Imaginary) History of (the Until Now Unknown) QED Bernoulli*
	158 Bioscience Education Center	Student: Peter Gartland, The Catholic University of America *Jordan Decomposition and Semisimple Lie Algebras*
	160 Bioscience Education Center	Student: Dylan Weber, St. Mary's College of Maryland *Raised Turning Sweepers*
	162 Bioscience Education Center	Student: Ahmad Nazeri, Randolph-Macon College *Human vs. Machine: Can computers be programmed to play chess?*
	163 Bioscience Education Center	Student: Graylon Wright, Salisbury University *A Special Case of the Converse to the Mean Value Theorem*
3:35 – 4:30	151/152	**Invited Address:** *The ART of Tomography*

	Bioscience Education Center	**Timothy Feeman** Villanova University
4:35 - 4:50	151/152 Bioscience Education Center	**Undergraduate Prize Session** Including Radical Dash