

## Abstracts and Biographies of Speakers

### The Mysterious Arithmetic of Lexicographic Codes

*John H. Conway, Princeton University*

Integral lexicographic codes are very simply defined (by a “greedy algorithm”), but have strange arithmetical properties that are hidden in a theorem I call “The Lexicode Theorem.” I’ll tell you what the theorem says, and together we’ll puzzle out what (if anything) it means.

**John H. Conway** is John von Neumann Distinguished Professor of Mathematics at Princeton University, NJ. Born in Liverpool, England, he received his education at the University of Cambridge and then taught at Cambridge for many years before joining the Princeton faculty in 1986.

Conway is the author or co-author of at least ten books, and of many expository articles which have had substantial impact not just on research mathematicians but on mathematical amateurs as well. Conway has a rare gift for naming mathematical objects, and for inventing useful mathematical notations. He is widely known for his discovery of surreal numbers, the Conway group, and for inventing the Game of Life.

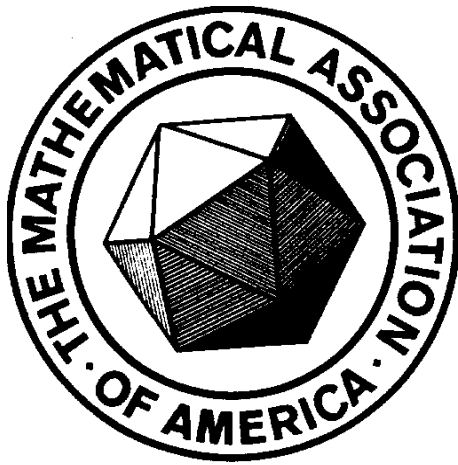
Conway is a Fellow of the Royal Society, a Member of the American Association for the Advancement of Science, and recipient of the Berwick Prize of the London Mathematical Society (1971), Pólya Prize of the London Mathematical Society (1987), Frederic Esser Nemmers Prize (1999), Leroy P. Steele Prize of the American Mathematical Society (2000), and Joseph Priestley Award (2001). He received an honorary doctorate from the University of Liverpool on July 4, 2001.

### Designing the Pre-service Teacher Curriculum to Better Meet the Needs of Our Future Teachers

*Mercedes McGowen, William Rainey Harper College*

David Ausubel claimed that “the single most important factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly.” How do we determine what a student already knows and then use the evidence of learning that we collect to improve our teaching and student learning? What classroom experiences foster the development of mathematical thinking—pattern recognition, generalization, abstraction, problem solving, careful analysis, rigorous argument and flexible thinking? Designing a curriculum that builds on students’ prior knowledge to develop these skills effectively and at appropriate levels for *all* students is one of the biggest and most important challenges we face. To address these questions, we will analyze some mathematical tasks that illustrate how mathematical

## The Mathematical Association of America New Jersey Section



Spring Meeting  
Rutgers University  
New Brunswick, NJ

Saturday, March 27, 2004

knowledge for teaching differs from knowledge of mathematics.

**Mercedes McGowen** began her teaching career in 1979 teaching junior high school and then high school mathematics in Elgin, Illinois. Since 1990 she has taught at William Rainey Harper College in Palatine, Illinois. Her major teaching focus since 1991 has been the mathematical content preparation of teachers, and her primary research focus the nature of mathematical thinking and how students think about/learn mathematics. She received her Ph.D. from the University of Warwick in England, under the direction of David Tall. 1998. She has been on numerous national, state, and MAA committees and task forces involving the mathematical education of teachers and the role of two-year colleges in this education. She has also been active in MAA committees on developmental mathematics and mathematics courses in the first two years. She has written two textbooks, *Applying Algebraic Thinking to Data* and *Mathematical Investigations: Concepts and Processes for the Introductory Algebra Student* (both with DeMarois and Whitkanack). She has published numerous papers and participated in many panels on these topics. She has won several awards for teaching excellence, and an NSF Two-Year College Award for Exemplary Program in Teacher Preparation.

#### **Role Assignments in Social Networks** **Fred S. Roberts, Rutgers & DIMACS**

Role assignments (otherwise known as role colorings) for graphs were introduced in 1991 by Everett and Borgatti to model social role in social network theory, and were defined earlier in terms of homomorphisms and vertex partitions by Sailer in 1978 and White and Reitz in 1983. They arise from the idea that if social role is defined properly, then individuals with the same role will relate in the same way to other individuals playing counterpart roles. Let  $r(x)$  denote the role assigned to vertex  $x$ , where  $r(x)$  is an integer between 1 and  $k$ . Let  $N(x)$  be the open neighborhood of  $x$ . We say that  $r$  defines a role assignment if whenever  $r(x) = r(y)$ , then  $r(N(x)) = r(N(y))$ . In other words, in a role assignment, if two individuals have the same role, they are related in the social network to individuals with the same sets of roles. This concept gives rise to some challenging mathematical problems with applications ranging from sociology to ecology to counter-terrorism. We discuss the mathematics of role assignments, presenting algorithms, approximations, and connections to areas of mathematics besides graph theory. We also discuss the applications and present some open problems.

**Fred S. Roberts** received his A.B. in mathematics from Dartmouth College and his M.S. and Ph.D. in mathematics from Stanford University. He has held postdoctoral fellowships at the University of Pennsylvania and

the Institute for Advanced Study in Princeton, and then joined the faculty at Rutgers University, where he is currently Professor of Mathematics, Fellow of RUTCOR (Rutgers Center for Operations Research), Director of DIMACS (Center for Discrete Mathematics and Theoretical Computer Science), and chairs the Rutgers University Homeland Security Research Initiative.

Professor Roberts' major research interests include mathematical models in the sciences, problems of communications and transportation, graph theory, combinatorics, measurement theory, and operations research. He is the author of some 150 scientific articles, including four books, and serves on the editorial board of six journals. Among his honors and awards, Professor Roberts has been the recipient of the University Research Initiative Award from the Air Force Office of Scientific Research and the Distinguished Service Award of ACM-SIGACT (Association of Computing Machinery Special Interest Group on Algorithms and Computation Theory). He recently received the National Science Foundation Science and Technology Centers Pioneer Award in a ceremony at NSF conducted by NSF Director Rita Colwell.

#### **Abstracts of MAA-NJ contributed paper sessions**

##### **Session 1: History of Mathematics (SEC 202)**

Organized and presided over by Francine Abeles, Kean University, and Larry D'Antonio, Ramapo College

1:30-1:45

Lawrence D'Antonio, Ramapo College of New Jersey,  
ldant@ramapo.edu

##### **The Role of Metaphor in Mathematics**

Mathematical discourse is usually seen as being fundamentally different from literary discourse. Both types of discourse must, of necessity, be expressed in terms of a language, but the language of the mathematician seems to have little in common with that of the poet. This talk critically examines that received view by considering historical examples of figurative language in both mathematics and poetry. To bridge the gap between the familiar and the unfamiliar, the tangible and the intangible, both the poet and the mathematician resorts to a condensed form of speech in which metaphor plays a crucial role.

1:50-2:05

Robert E. Bradley, Adelphi University, [bradley@adelphi.edu](mailto:bradley@adelphi.edu)  
**The Curious Case of the Bird's Beak**

In the late 1740s, Leonhard Euler and Jean d'Alembert engaged in a lively and friendly mathematical correspondence, but their relationship degenerated after just a few years. In the *Memoires* of the Berlin Academy for 1750, Euler attempted to smooth over their difficulties by acknowledging d'Alembert's priority in a problem of celestial mechanics. At the end of this brief note was the cryptic comment: "... Mr. d'Alembert also was the first to give a resolution to the question of the nature of curves which have a cuspidal point of the second kind, or a bird's beak."

This curious question in the theory of equations originated with the Marquis de l'Hôpital, who defined the cuspidal point of the second kind in his famous 1696 calculus text. In 1740, J. P. de Gua de Malves published a false proof that algebraic curves could have no such cuspidal points. Shortly afterwards, both d'Alembert and Euler fashioned examples to counter de Gua's claim. In this talk, I will discuss these counterexamples and investigate Euler's reasons for ceding to d'Alembert, even though priority actually belonged to him.

2:10-2:25

Francine F. Abeles, Kean University, [fabeles@kean.edu](mailto:fabeles@kean.edu)  
**Lewis Carroll's Last Cipher**

An analysis of the ciphers invented by Charles L. Dodgson (Lewis Carroll) indicate that his *Memoria Technica* (1875), a variant of a mnemonic scheme first proposed by Richard Grey in 1730, is properly viewed as Dodgson's fifth, and last, cipher system. He used his *Memoria Technica* cipher as a tool in work that was never published, a projected book whose working title was "Logarithms by Lightning: A Mathematical Curiosity." The logarithms project, a joint work with his colleague, Robert Edward Baynes, is examined in detail.

2:30-2:45

B. L. Bodner, Monmouth University, [bodner@monmouth.edu](mailto:bodner@monmouth.edu)  
**A Comparison of Two Mechanical Adding Machines: the Pascaline of 1642 and the Addometer of 1942**

Surprisingly, the Pascaline of 17<sup>th</sup> Century France and the Addometer of 20<sup>th</sup> Century USA share many common features. This paper will present a short history and then compare and contrast the design and capabilities of these two mechanical adding machines. Lastly, using my father's Addometer, I will demonstrate how basic arithmetic operations were achieved prior to the widespread availability of handheld calculators and personal computers.

## **Session 2: Popular and Recreational Mathematics (SEC 203)**

Organized and presided over by Michael Jones, Montclair State University

1:30-1:45

Jay L. Schiffman, Rowan University, Camden Campus;  
[Schiffman@rowan.edu](mailto:Schiffman@rowan.edu)  
**Odd Abundant Numbers and Two Curiously Fascinating Sequences**

It is well known that 945 is the initial odd abundant number in the sense that the sum of its aliquot divisors is greater than 945. In this paper, I will explore the arithmetic sequences  $945 + 630n$  and  $15015 + 2310n$ , which generate odd abundant number outputs for the initial 52 and 188 whole number inputs respectively. The first sequence is the subject of a paper by the author to appear in *The Mathematical Spectrum* while the second sequence was discovered by my friend and colleague Christopher Smythe Simons of Rowan University.

1:50-2:05

Elyn Rykken, Muhlenberg College; [elrykken@muhlenberg.edu](mailto:elrykken@muhlenberg.edu)  
**On Thin Ice: Problems with the New System for Judging Figure Skating**

You may remember the controversy surrounding the 2002 Olympic pairs figure skating competition. The Canadian pair ended up in second place behind the Russians because of a corrupt French judge. This led to the awarding of double gold medals, and to the creation of a controversial new judging system. In this talk I will describe the old and new judging systems, and discuss some mathematical criterion for evaluating such systems.

2:10-2:25

Carol Avelsgaard, Middlesex County College;

[avelsgaa@email.njin.net](mailto:avelsgaa@email.njin.net)

### **The Game of Logic**

Lewis Carroll, the author of Alice in Wonderland was also the Reverend C.L. Dodgson, an Oxford don who lectured in mathematics. He was a contemporary of the English logicians DeMorgan, Boole, and Venn. The logical problem posed at this stage of the development of logic was to find the total amount of information about a specific term contained in a set of premises. Lewis Carroll considered this to be a wonderful game, suitable for presentation to children and in 1896 he published a version of it in Symbolic Logic, Part I: Elementary. The manuscript for Part II: Advanced went missing when both Lewis Carroll and the Reverend Dodgson died in 1899 but was finally recovered and published in 1977. (We will play the game!)

2:30-2:45

Maureen T. Carroll\* and Steven T. Dougherty, University of Scranton; [carrollm1@uofs.edu](mailto:carrollm1@uofs.edu)

### **Tic-tac-toe on a Finite Plane**

We will introduce a new version of the familiar game tic-tac-toe. In this version, the winning lines are prescribed by the geometry of a finite plane. This creates a more challenging game as the lines do not have to appear to be straight. In addition to describing how to play the game, winning and drawing strategies for both players will be discussed.

2:50-3:05

Yi Jin, Rutgers University, [yjin@paul.rutgers.edu](mailto:yjin@paul.rutgers.edu)

### **Polynomiography and Applications in Art, Education, and Science**

The author presents the Fundamental Theorem of Algebra as a tool for artists, educators, and scientists through “polynomiography” a new medium for visualizing polynomial equations. An individual image is called a polynomiograph. While some polynomiographs may result in fractal images many others do not. The same polynomial through various iterations of functions and user's own creativity and coloring can lead to a variety of designs. Through polynomiography and properties of the underlying iteration of functions, polynomials find new applications in art, education, and science. Polynomiography also

can offer visualizations that inspire new theorems on polynomials. We will exhibit a collection of polynomiographs and discuss a few applications of polynomiography in the above-mentioned fields. From the educational point of view polynomiography can be used in such course as calculus, algebra, numerical analysis, dynamical systems, courses pertaining to fractal theory, and art.

### **Session 3: SIGMAA Session on Statistics Education (SEC 205)**

Organized and presided over by Dexter Whittinghill, Rowan University

1:30-1:45

Dr. Nkechi Madonna Agwu , Borough of Manhattan Community College, [nagwu@bmcc.cuny.edu](mailto:nagwu@bmcc.cuny.edu)

### **Faculty and Course Development for an e-Distributed/Distance Learning Statistics Class**

This presentation will share with the audience the presenter's experience in developing and teaching an e-distributed/distance learning statistics course (MAT 150 – Introduction to Statistics) at the Borough of Manhattan Community College (BMCC), City University of New York (CUNY), and in mentoring faculty to teach this course and/or to develop e-distributed/distance learning courses. This course was developed as an e-distributed/distance learning course within the auspices of the BMCC Title III and Distance Learning Faculty Development Programs. The presenter will also share with the audience the impact of this type of mentoring collaboration on the professional growth and development of the presenter and the faculty members that she mentored.

1:50-2:05

Dexter C. Whittinghill, Rowan University,

[whittinghill@rowan.edu](mailto:whittinghill@rowan.edu)

### **The Scoring of an AP Statistics Question: Rubric, Regularity and Rigor**

We will take a close look at one or two Free Response questions from the 2003 AP Statistics Exam, and its/their scoring. After familiarizing ourselves with the question, we will concentrate on three aspects of its scoring. First, we will look at the rubric, or set of rules for scoring the answer. Second, we will look at the training of the grader, or ‘reader,’ to help insure uniformity of the scoring. Last, we will look at the overall scoring process to see that the process is indeed strict. Short of attending a grading in

Lincoln, we hope to show that the process insures that a good score on a question reflects a mastery of that application.

2:10-2:25

Christopher Jay Lacke, Rowan University, [lacke@rowan.edu](mailto:lacke@rowan.edu)  
**A Statistical Comparison of Academic All-American Football Players Versus All- American Football Players**, Preliminary Report

At the end of each college football season two types of All-American Football teams are selected. The American Football Coaches Association (AFCA) selects a team based on football ability, while the Academic All-American teams are based on a combination of athletic and academic ability (a current GPA requirement of 3.2). In this preliminary report, we will be looking at a number of questions, which include the following:

- 1) How often do the All-Americans make the Academic All-American list?
  - 2) Has this pattern changed over time?
  - 3) Are there certain universities or conferences that tend to have many players on one list, but very few on the other?
- Additional research questions will be discussed.

2:30-3:00 **General Discussion Period**

**Session 4: Technology in the Mathematics Classroom** (SEC 204)  
 Organized by Karen Clark and Thomas Hagedorn, The College of New Jersey  
 Presider: Karen Clark, The College of New Jersey

1:30-1:45

Marlena Herman, Rowan University, [herman@rowan.edu](mailto:herman@rowan.edu)  
**Networked Graphing Calculators in Undergraduate Mathematics**

Modern Classroom Communication Systems (CCSs) have the potential of significantly impacting the classroom environment. The presenter will discuss experiences with using a CCS called TI-Navigator (networked graphing calculators) and briefly demonstrate uses of TI-Navigator for teaching and learning mathematics. Means of engaging and monitoring students; providing instantaneous feedback; incorporating discovery learning; and collecting, sharing, and analyzing data will be modeled.

(continued on page 12)

## Mathematical Association of America New Jersey Section Spring 2004 Meeting Program

*All sessions except the concurrent sessions at 1:30 p.m. will take place in SEC111*

8:30 – 9:15	Registration and Coffee, Lobby
8:30 – 1:30	Book Exhibits, Lobby
9:15 – 9:30	<b>Welcome by Michael Beals</b> , Dean for Educational Initiatives, Faculty of Arts and Sciences, Rutgers University
9:30 – 10:20	<b>Designing the Pre-service Teacher Curriculum to Better Meet the Needs of Our Future Teachers, Mercedes McGowen</b> , William Rainey Harper College Presider: Donna Cedio-Fengya, William Patterson University
10:20 – 10:30	Chair's and Governor's Reports, and recognition of 25- and 50-year members
10:30 – 10:40	Presentation of <b>Distinguished Teaching and Meritorious Service Awards</b>
10:40 – 11:10	Intermission
11:10 – 12:00	<b>Role Assignments in Social Networks, Fred S. Roberts</b> , Rutgers University and DIMACS Presider: Michael Jones, Montclair State University
12:00 – 1:30	<b>Lunch</b> , Busch Campus Center Multipurpose Room (Book Exhibits end at 1:30)
1:30 – 3:05	<b>MAA-NJ Contributed paper sessions</b> (concurrent): History of Mathematics: SEC 202 Popular and Recreational Mathematics: SEC 203 SIGMAA on Statistics Education: SEC 205 Technology in the Mathematics Classroom: SEC 204 General Contributed Papers: SEC 206
3:05 – 3:30	Intermission, Lobby (Silent Auction bidding ends at 3:30)
3:30 – 4:20	<b>The Mysterious Arithmetic of Lexicographic Codes, John H. Conway</b> , Princeton University Presider: Christopher Simons, Rowan University
4:20 – 4:30	Contest Results, Awards, and Drawing of door prizes and announcement of Silent Auction Winners (must be present to win)
5:00	Dinner honoring Award Winners, Invited Speakers and Workshop Leaders

## Garden State Undergraduate Math Conference Spring 2004 Program

8:30 – 10:00	Registration and Breakfast, Lobby
8:30 – 9:00	Check-in for NJ Undergraduate Math Competition, SEC 210
9:00 – 12:00 (9:00 – 10:00) (10:00 – 12:00)	<b>NJ Undergraduate Math Competition</b> Individual Session Team Session Headquarters: SEC 210
12:00 – 1:00	<b>Lunch</b> , Busch Campus Center Multipurpose Room
1:00 – 1:45	<b>Career Workshops</b> (concurrent): <i>Graduate School</i> : SEC 207: Stephen Greenfield, Rutgers University <i>Industry/Government</i> : SEC 208: Greg Coxson, Lockheed Martin <i>Education</i> : SEC 209: Marlene Krupp, Lyndhurst school district and Suzanne Reynolds, Kean University
1:50 – 3:30	<b>Presentations by Students: Talks and Poster Session</b> Student Session 1: SEC 207 Student Session 2: SEC 208 Student Poster Session: SEC 210
3:30 – 4:20	<b>Keynote Address: <i>The Mysterious Arithmetic of Lexicographic Codes</i>, John H. Conway</b> , Princeton University, SEC 111 Presider: Christopher Simons, Rowan University
4:20 – 4:30	Contest Results, Awards, and Prizes, SEC 111
4:30	End of Conference

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## Abstracts of contributed paper sessions

**Session 4: Technology in the Mathematics Classroom** (continued from p. 9)

1:50-2:05

Chuck Weibel, Rutgers University, [weibel@math.rutgers.edu](mailto:weibel@math.rutgers.edu)  
**Webwork Effectiveness in Rutgers Calculus**

When we implemented web-based homework at Rutgers in 2001, we were able to view the common final exam as a controlled experiment. Among incoming students, we found that web-based homework helped; there was less of an effect for older students.

2:10-2:25

Michael Fraboni, Moravian College, [mfraboni@moravian.edu](mailto:mfraboni@moravian.edu)  
**AiM, A CAS based homework system**

Assessment in Mathematics (AiM) is a web based homework/testing platform. What makes AiM unique is its use of Maple in the generation and grading of questions. I will discuss some features of AiM, and my experience with it in the classroom.

2:30-2:45

Bert Wachsmuth, Seton Hall University, [wachsmut@shu.edu](mailto:wachsmut@shu.edu)  
**Tablet PC and Mathematics: A Match Made in Heaven**

I will demonstrate how a Tablet PC (a standard laptop with a special “swivel” screen to write on) can be used to effortlessly deliver “real-time” mathematics lessons with a computer. By using the supplied pen to hand-write on the screen as if writing on a piece of paper, you completely avoid the problem of having to type-set mathematical formulas. You can even use an LCD projector to project your writing, drawing, and diagrams directly on the screen, completely bypassing the blackboard. Of course you can also run the “usual” software applications such as Microsoft Office, Maple, Mathematica, etc., and you can easily switch between tradition “keyboard mode” and “handwriting mode.”



2:50-3:05

Joseph Molitoris, Shore School and Ilex Systems,  
mhmolitor@aol.com **Computer Simulation Technology in the Classroom**

A project based technique for integrating research into mathematics, computers, and science courses is discussed. This alternative method of teaching and learning has the following parts:

1. Students choose a term long research project from an instructor generated list,
2. Students make regular presentations in the classroom about their projects,
3. Each project incorporates data, equations, and a simulation done in Excel or a standard programming language. Exceptional projects may be submitted to a regional math/science symposium or competition or continued as a senior thesis or summer project.

#### **Session 5: General Contributed Papers (SEC 206)**

Organized by Theresa C. Michnowicz, New Jersey City University

Presider: Beimnet Teclezghi, New Jersey City University

1:30-1:45

Yuan Zhong Xu, Ocean County College, [yuanxu@sbcglobal.net](mailto:yuanxu@sbcglobal.net)  
**Q-hypoellipticity for a system of partial differential equations**

We consider the Q-hypoellipticity and partially Q-hypoellipticity for a system of partial differential equations with constant coefficients. The necessary and sufficient conditions for the Q-hypoelliptic system and partially Q-hypoelliptic system (determined or overdetermined) are obtained

1:50-2:05

John Snugg, [jsnygg@earthlink.net](mailto:jsnygg@earthlink.net)  
**The slow acceptance of non-Euclidean geometry**

A prominent problem at the beginning of the 19th century was that of proving Euclid's parallel axiom from Euclid's other axioms. This problem had remained unsolved for over 2,000 years. Both Nikolai Lobachevskii and Janos Bolyai showed why this problem had not been solved and then laid down the foundations of hyperbolic geometry. However neither received much recognition during their lifetimes. Why?

2:10-2:25

Beimnet Teclezghi, New Jersey City University,  
[bteclezghi@NJCU.edu](mailto:bteclezghi@NJCU.edu)  
**Tower of Endomorphisms of full transformation semigroup**

We will find description of

$End^{^N}(T_N) = End(End(...(End(T_N)...))$  where  $T_N$  is the semigroup of functions with domain  $\{1, 2, \dots, N\}$  and  $End(T_N)$  is the semigroup of endomorphisms of  $T_N$ .

## **Announcements**

### **Lunch discussion tables for Spring 04 meeting**

There will be eight discussion tables at lunch.

1. How can mathematical scientists contribute to homeland security? led by Fred Roberts, DIMACS
2. How does the *teaching* of mathematics differ from *doing* mathematics? led by Mercedes McGowen, William Rainey Harper College
3. How much calculus should we be teaching in a calculus-based probability course? led by Chris Lacke, Rowan University
4. POMSIGMAA: What is Mathematics? led by Bonnie Gold, Monmouth University
5. Popular and Recreational Mathematics, led by Mike Jones, Montclair State University
6. Statistical Demonstrations, High-tech and Low, led by Mark Bailey, SAS
7. Using Technology in the Undergraduate Classroom, led by Karen Clark and Tom Hagedorn, TCNJ
8. What's happening in BIG SIGMAA? Report from the Joint Math Meetings, led by Greg Coxson

Those who pre-registered have priority at these discussion tables. We look forward to a set of lively and interesting discussions!

### **MAA-NJ Fall 2004 Meeting**

The Fall 2004 MAA-NJ Section meeting will be held on Saturday, November 13 at The College of New Jersey, Ewing, NJ.

Invited speakers: Frank Farris, Santa Clara University (<http://math.scu.edu/faculty/farris.html>); David Holmes, The College of New Jersey; and Joseph O'Rourke, Smith College (<http://cs.smith.edu/~orourke/>); two workshops (one by Joseph O'Rourke, the other to be announced) and elections for Chair Elect, Vice Chair for Speakers, and Secretary.

**Call for Lunch Table Discussion Leaders at Fall 2004 Meeting**

Please submit topics to Theresa C. Michnowicz, New Jersey City University, 201-200-3219, [tmichnowicz@njcu.edu](mailto:tmichnowicz@njcu.edu), by September 30, 2004.

**Other Future MAA-NJ Meetings**

The Spring 2005 Meeting will be held at Middlesex County College.

The Fall 2005 Meeting will be held at Monmouth University.

**MathFest 2004**

The Mathematical Association of America will hold its annual MathFest in Providence, RI, August 12-14, 2004. Check MAA Online at <http://www.maa.org> for more information about MathFest.

**Upcoming Workshops**

The MAA's Professional Enhancement Program (PREP) will offer a wide variety of Workshops during summer 2004. This is an opportunity for you to spend a few days at a nice location with colleagues of mutual interests learning about mathematics or mathematics education during this coming summer.

**2004 PREP Workshops**

- Assessing the Undergraduate Program in Mathematics
- Geometric Combinatorics
- Mathematics Meets Biology: Epidemics, Data Fitting, and Chaos
- Nifty Applications in Discrete Mathematics
- The Geometry of Vector Calculus
- Statistical Ratemaking
- Revitalizing Your Developmental Mathematics Courses: A Context-Driven, Activity-Based Approach
- Exploring Abstract Algebra Using Computer Software
- Computational and Mathematical Biology
- Quantitative Literacy Across the Curriculum: Everybody's Project
- Leading the Academic Department: A Workshop for Chairs of Mathematical Sciences

Visit MAA Online at <http://www.maa.org/prep/#ostebee> for information about these workshops and other meetings/workshops.

In addition to the above PREP workshops, PMET (Preparing Mathematicians to Educate Teachers) is offering eight workshops during summer 2004. Visit the PMET website, <http://www.maa.org/pmet>, for more information about the program.

**Mathematics Awareness Month**

April 2004 is Mathematics Awareness Month. This year's topic is "The Mathematics of Networks", a topic with profound ramifications in our increasingly technological and information driven global economy. For more information about the 2004 Mathematics Awareness Month, visit the web site <http://mathforum.org/mam/04/>.

**ONLINE RESOURCES**

Check out the following online resources: Mathematical Sciences Digital Library, an MAA online resource for teachers and students of collegiate mathematics (<http://www.mathdl.org/>), a searchable database for Mathematics Magazine and the College Mathematics Journal (<http://www.math.hmc.edu/journalsearch/>), and visit the MAA website <http://maa.org/> for upcoming professional development opportunities, teaching and research resources, and grant information.

**Call for Nominations for the New Jersey Section Award for Distinguished College or University Teaching**

The MAA-NJ Section Distinguished Teaching Award Selection Committee is seeking nominations for the 2005 Distinguished College or University Teaching Award. Please consider nominating an inspiring, respected, or influential deserving colleague for this prestigious award. There are many outstanding teachers of mathematics in the NJ Section, but to be awarded this recognition, they must first be nominated by their colleagues. Information about the nomination process and eligibility requirements is posted on the Section's web site at <http://www.maa.org/newjersey>.

The winner of the award will be recognized at the Spring 2005 Meeting. For more information about the award, please contact Mark S. Korlie (Secretary of the MAA-NJ Section), [korliem@mail.montclair.edu](mailto:korliem@mail.montclair.edu), 973-655-5300.

**Dinner Honoring Award Winners and Invited Speakers**

The Section will honor award winners and the invited speakers at dinner following the meeting. Everyone is cordially invited.

**JOIN THE MAA** (<http://maa.org/mbsvcs/future.html#joinmaa>).

**DIMACS Reconnect Conference 2004**

DIMACS, the Center for Discrete Mathematics and Theoretical Computer Science at Rutgers University, Piscataway, NJ, will host the conference "Integrating Information from Sequence and Evolution: An Introduction to Computational Biology" at DIMACS/Rutgers University, August 8-14,



2004. Lodging and meals will be provided through anticipated NSF funding. Visit <http://dimacs.rutgers.edu/reconnect/> for more information about this conference and for a list of other conferences that DIMACS will sponsor during summer 2004.

### **News from NJ Departments**

Georgian Court College is now Georgian Court University.  
 Congratulations to Georgian Court on its transition.

### **MAA-NJ Officers**

<b>Chair</b>	Cathy Liebars, The College of New Jersey
<b>Vice Chair for</b>	
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Innovations	Theresa C. Michnowicz, NJCU
Two-Year Colleges	Carol Avelsgaard, Middlesex County College
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