## national association of mathematicians

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## IN THE NEWS

The president moves: Dr. Nathaniel Dean, president of NAM, has moved from Texas Southern University to the University of Texas at San Marcos.

Mathematician refuses million dollars: Grigory Perelman, who solved the Poincaré conjecture, shunned Mathematics greatest prize, the Fields Medal. Also seems uninterested in a separate $\$ 1$ million prize he could eventually win for proving the theorem. Rumors have it he is afraid of the so-called Russian Mafia.

George A. Roberts (1940-2006) passes: After graduating from Wiley College he received his Masters degree from the University of Arizona and went on to become the first African American to earn a Ph.D. in mathematics from Texas A\&M University, in 1979. In 1983 he joined Prairie View A\&M University began in 1983. He was promoted to professor in 1992.

## Novels with Mathematicians Characters

Though these are fiction, some our rife with facts. Many are available in paperback at a good local bookstore, and certainly online.

1. Beyond the Limit: The Dream of Sofya Kovalevskaya by Joan Spicci. The young woman through the 1860s and ' 70 s as she fights to get a mathematics doctorate at a time when such an education was unheard of for women. The daughter of a prominent St. Petersburg family, Kovalevskaya arranges a marriage of convenience to a young former revolutionary so that she can escape her parents' hawk-eyed supervision; she unexpectedly finds herself falling in love with her husband, but is terrified that motherhood might interfere with her education. Spicci's engaging story is set against the whirl of St. Petersburg society and the political upheavals of the 1860s.
2. The Mathematical Magpie and Fantasia Mathematica, both by Clifton Fadiman. Two classic anthologies of math in fiction and poetry. When Magpie appeared in 1958, readers couldn't get enough, so Fantasia followed in 1962. the best section appears first, A Set of Imaginaries, to get the reader hooked. Two other great stories are The Appendix And The Spectacles, and Coconuts.
3. Whom the Gods Love. The Story of Evariste Galois by Leopold Infeld, The French Mathematician by Tom Petsinis, and Galois Silence by Bernd Klein. Threee novels about Evariste Galois, b. 1811, was a mathematician whose innovative genius has been rarely matched. Galois brief (he died in 1832), life on the fringes of the mathematical and political establishments lends easily to the great myth of Galois as the genius
oppressed by the hostile, ignorant power structure of his day. His untimely death in a duel, fought for reasons shrouded in the imbroglio of Galois last days, further lends a romantic aura to Galois the myth. Yet, the young man was also an incendiary and hothead whose radical political stances coupled with an acerbic personality, that, perversely, seemed to find comfort in conflict with the mathematical and political establishments, helped to create the conditions for his own death. What can be surely said about Galois is that his early death is a loss to mathematics.
4. Cryptonomicon by Neal Stephenson - Between the bizarre title and the 900 page length, some may be initially turned off by this book. It is really three novels in one, all exploring the science of cryptography. Two of the stories are set during World War II, one from the perspective of a Japanese officer assigned to secure a supply of German gold in the Philippines, and one about a secret group assigned to keep the Germans from knowing that their Enigma code has been broken. The third story is set in present day, about a group of computer hackers who are creating a new international currency based on cryptography, which threatens to change the face of world economics. The three stories often cross paths, and the outcomes of each story are dependent on one another.
5. The Man Who Counted by Malba Tahan - Malba Tahan is a pen name of Brazilian mathematician Júlio César de Mello e Souza (1895-1974) who wrote a collection of stories set in 14th century Persia. It is about a poor traveler who just happens to be good at math, and how he uses these abilities to climb the social ladder. Written to teach simple appreciation of math, each chapter contains a fun math puzzle that has to be solved. Appropriate for all ages and all levels of mathematical know-how.
6. Einstein's Dreams by Alan Lightman - These are vignettes describing dreams that Albert Einstein could have had while trying to understand the mysteries of relativity, space, and time. Each vignette contains a world that behaves according to a particular model or perception of time and space, inhabited by people who have evolved behaviors and philosophies as a consequence of this paradigm.
7. Einstein: Please Mr Einstein by Jean-Claude Carrier's 2005. This is the Einstein of folk myth: wacky and wise.
8. Permutation City by Greg Egan - Australian author Greg Egan defines the term "speculative science fiction" with his various novels and stories set in worlds where what might be scientifically possible is possible. Set about 50 years into the future where technology exists to scan the human brain in such detail that the scanned brain can be simulated as a computer program. This creates the possibility of immortality for those rich enough to afford the computer cycles. A deeply philosophical satire about the creation of an artificial heaven and an artificial universe.
9. Flatland by Edwin A. Abbott - A classic sci-fi novel about A. Square, a two dimensional being who discovers the existence of a third dimension. This book has almost become required reading in High School, as it teaches higher dimensional mathematics better than any lecture could. A new annotated edition edited by writer lan Stewart is now out in bookstores everywhere. Some exposure to planar geometry is needed to understand parts of the book.
10. Cascade Point by Timothy Zahn. The novel concerns future space travel whereby spacecraft enter a higher dimension using a field generator, then rotate the spacecraft within the field which results in translational displacement of the craft (i.e. it travels forward in space). The spacecraft then stops rotating, turns off the field generator, and the craft is then back in normal space, several light years away from where it started the maneuver. Mathematical analysis comes in to play when they passengers and crew of one starship find that they have inadvertantly entered one of the branching dimensions and must find their way back to their original dimension. The book won the 1984 Hugo award.
11. The Blind Geometer by Kim Stanley Robinson. This excellent science fiction author about someone fitting the title. We get to see a reasonable partial proof of Desargues's Theorem.
12. 7 Steps to Midnight by Richard Matheson. Government mathematician enters into an altered reality.
13. The Catalyst by Desmond Cory. Excellent murder mystery involving a Math Professor turned sleuth.
14. The Cambridge Theorem by Tony Cape. A spy novel about a murdered brilliant math grad student.
15. After Math by Miriam Webster. Murder mystery written by mathematician Amy Babich (her real name).
16. Brazzaville beach by William Boyd. A scientist with topologist husband escapes to Africa to study chimps and a lover.
17. The Bones of Time by Kathleen Ann Goonan. A teen does brilliant mathematical work while carrying on

For a list of 250 books of Mathematical Fiction about made up characters, see http://math.cofc.edu/faculty/kasman/MATHFICT/

## Music and Topology by Chad Boutin

Composers often speak of fitting chords and melodies together, as though sounds were physical objects with geometric shape - and now a Princeton University musician has shown that advanced geometry actually does offer a tool for understanding musical structure.

In an attempt to answer age-old questions about how basic musical elements work together, Dmitri Tymoczko has journeyed far into the land of topology and non-Euclidean geometry, and has returned with a new - and comparatively simple - way of understanding how music is constructed. His findings have resulted in the first paper on music theory that the journal Science has printed in its 127-year history, and may provide an additional theoretical tool for composers searching for that elusive next chord.
"I'm not trying to tell people what style of music sounds good, or which composers to prefer," said Tymoczko (pronounced tim-OSS-ko), a composer and music theorist who is an assistant professor of music <http://www. music.princeton.edul> at Princeton. "What I hope to do is provide a new way to represent the space of musical possibilities. If you like a particular chord, or group of notes, then I can show you how to find other, similar chords and link them together to form attractive melodies. These two principles - using attractive chords, and connecting their notes to form melodies - have been central to Western musical thought for almost a thousand years."

Making graphical representations of musical ideas is not itself a new idea. Even most nonmusicians are familiar with the five-line musical staff, on which the notes that appear physically higher represent sounds that have higher pitch. Other common representations include the circle of fifths, which illustrates the relationships between the 12 notes in the chromatic scale as though they were the 12 hours on a clock's face.
"Tools like these have helped people understand music with both their ears and their eyes for generations," Tymoczko said. "But music has expanded a great deal in the past hundred years. We are interested in a much broader range of harmonies and melodies than previous composers were. With all these new musical developments, I thought it would be useful to search for a framework that could help us understand music regardless of style."

Traditional music theory required that harmonically acceptable chords be constructed from notes separated by a couple of scale steps - such as the major chord, whose three notes comprise the first, third and fifth elements in the major scale, forming a familiar harmony that most audiences find easy to enjoy. Many 20thcentury composers abandoned this requirement, however. Modern chords are often constructed of notes that sit right next to one another on the keyboard, forming "clusters" - dissonant by traditional standards - that to this day often challenge listeners' ears.
"Western music theory has developed impressive tools for thinking about traditional harmonies, but it doesn't have the same sophisticated tools for thinking about these newer chords," Tymoczko said. "This led me to want to develop a general geometrical model in which every conceivable chord is represented by a point in space. That way, if you hear any sequence of chords, no matter how unfamiliar, you can still represent it as a series of points in the space. To understand the melodic relationship between these chords, you connect the points with lines that represent how you have to change their notes to get from one chord to the next."
One of Tymoczko's musical spaces resembles a triangular prism, in which points representing traditionally
familiar harmonies such as major chords gather near the center of the triangle, forming neat geometric shapes with other common chords that relate to them closely. Dissonant, cluster-type harmonies can be found out near the edges, close to their own harmonic kin. Tymoczko said that composers have traditionally valued a kind of harmonic consistency that does not require that the listener jump far from one region of the space to another too quickly.
"This idea that you should stay in one part of space," he said, "is an important ingredient of our notion of musical coherence."

To bring these ideas to life, Tymoczko has created a short movie http://www.princeton.edu/pr/media/chopin/ chopin3_350k.mov that illustrates the chord movement in a piece of music by 19th-century composer Frederick Chopin. His E minor piano prelude (Opus 28, No. 4) has charmed listeners since the 1830s, but its harmonies have not been well explained.
"This prelude is mysterious," Tymoczko said. "While it uses traditional harmonies, they are connected with nonstandard chord progressions that people have had trouble describing. However, when you plot the chord movement in geometric space, you can see Chopin is moving along very short lines, staying primarily within one region."

Tymoczko said that the geometric approach could assist with our still-murky understanding of music ranging from the mid-1800s through the contemporary period, including the cluster-based compositions of Georgi Ligeti, whose work formed a dramatic part of the soundtrack to the film "2001: A Space Odyssey."
"What all this implies is that you can begin with any sort of harmony your ear enjoys, whether it's a familiar chord from a 300-year-old hymn or the most avant-garde cluster you can imagine," he said. "But once you have decided where to start from and what region of space your harmony inhabits, very general principles of musical coherence suggest that you stay close to that region of space."

Tymoczko, whose compositional influences include classical music, rock and jazz, said he does not expect people will start writing music by "connecting the dots" as a result of his research. But he hopes it will at least provide a new tool for understanding the relationships behind music.
"Put simply, I'm a composer and I like to write and play music that sounds good," he said. "But what does it mean to 'sound good'? That's a question that the musical community has grappled with for centuries. Our understanding of the Chopin piece, for example, had previously been very local - as if we were walking in a heavy fog and could only see a few steps in front of our feet at any one time. We now have a map of the whole terrain on which we can walk, and can replace our earlier, local perspective with a much more general one."

Commenting on the significance of the work, Yale's Richard Cohn said that Tymoczko has made a useful contribution to a fundamental problem in music theory.
"Dmitri's solution is exhaustive, original, and expressed clearly enough to be meaningful even to those musicians and scholars who do not have Dmitri's mathematicalabilities," said Cohn, who is the Batell Professor of the Theory of Music at Yale. "His work leads to a deeper understanding of why composers in the European tradition favor certain types of scales and chords, and it suggests that melody and harmony are more fundamentally intertwined than has been previously thought. His achievement will become central to future work in the modelling of musical systems."

Tymoczko's findings appear as a report in Science's July 7, 2006 issue.

## Our Journey Toward EXCELLENCE Jacqueline Brannon Giles

## Thinking About Our Journey

I just felt that I should express thanks to the National Association of Mathematicians and its cadre of leadership both past and present, for its support and nurture of so many young mathematicians in the United States and abroad. Having lived long enough to witness the cycles of difficulty our talented and gifted students and professionals face in the 21st century, it is imperative that we continue our mission with faith, passion for excellence, political astuteness, creativity, media presence and even as a shield and buttress to those who may need our counsel, and wisdom as a organization.

Progress is being made, and yet there are still fierce battles to destablilize some of our institutions, and some of our leaders.

I have known mathematicians who are lions of force in mathematical thought, yet gentle as lambs in their social and poltical interaction. I have known geniuses who stand far ahead of their peers and are lonely because there is no one to share with, in their specialization. I have known geniuses who reason powerfully, aligning their creative thoughts with the laws, and concepts of mathematics, but somehow are not mindful to search for rigor in legal and political matters that couch all that we do in the 21 st century.

We are all placed in different positions and levels in the matrix of talent, in achievement, and vision-but most of all we have learned to "stand" together for those things that create environments and conditions to produce others who are somehow like us and will somehow ascend to heights greater than ours.

As I said in an article that MAA published when I reviewed the movie "Proof." The generations are interconnected. Those who are older must reach out to encourage (and yes, even rescue) the younger ones. In a reciprocal manner, the young ones must reach out to the older ones. Imparting to the next generation is expected and taking part in a covenantal relationship to prepare and protect the pool of talent that exists in the African American, and other minority communities is a part of our organizational call.

One day a person I admire asked me why I like the theme, The Word Shield. I did not answer. But now I will. I have observed many of my friends and associates crumble under the covert and overt pressues of leadership and "favor." I have watched some environments invite you in, and then dump you out. There seems to be no end to the tendency to discredit and defame the reputation of some of our most talented young people. God knows that each of us error, but how we deal with error is the question.

Remember, the woman who was caught in adultery and how Jesus did not answer, but as I recall, He wrote in the sand. I have often wondered what that means. I can now say, that it may have meant that Jesus realized that in time, in His time, any one of our flaws, weaknesses or poor choices can be exposed. Why should He answer when there is a cycle wherein the accusers will become the accused. Remember what Peter did. Remember how most of the disciples became fearful near the end. Remember that the men who walked with, studied with and served under another who, too, was extraordinary, were martyred. We have contemporary examples, too.

So, we must be careful in judging others, for it may be that a day of reckoning is soon to come for each of us, if not in time, but surely in the unboundedness of eternity.

I want to thank the faithful members and leadership of NAM. Our discussions have sharpened so many. They have sharpened me. We have helped to prepare so many mathematicians for the real world in academia and in society, in general. Our mission is not "a mission impossible" but it is a mission that is challenging.

Be encouraged, and continue to shine!

## HBCU Math Workshop

Mathematics professors and educators representing six Historically Black Colleges and Universities (HBCUs) met for a four-day retreat/workshop to affect refocusing college algebra. The retreat, supported by the National Science Foundation (NSF) and the Army Research Office (ARO), occurred at the United States Military Academy (USMA), West Point, New York during the first week of June 2006.

The 2004 MAA report, Voices of the Partner Disciplines, expressed the importance of reform in college algebra and calculus programs. The report conveys the recommendations from faculty members in other [nonmathematics] disciplines that Mathematics departments should "Replace traditional college algebra courses with courses stressing problem solving, mathematical modeling, descriptive statistics, and applications in the appropriate technical areas" and "deemphasize intricate algebraic manipulations." The effort to change from the traditional to a contemporary approach requires structure, understanding, and management.

The HBCU Retreat/Workshop is part of a three-year program to: (1) provide a structured opportunity for HBCUs to reform their college algebra or calculus curriculum and (2) develop and pilot reformed assessment programs. This retreat was the first of two planned workshops. HBCUs represented at the initial workshop included:

- Florida Memorial University
- Albany State University
- Fort Valley State University
- Savannah State University
- Virginia State University
- Howard University

Florida
Georgia
Georgia
Georgia
Virginia
Washington DC

Professors from the Mathematics Departments of the United States Military Academy, Miami University of Ohio, and Prairie View A\&M University served as hosts and mentors for the workshop. The workshop included several problem sessions allowing the HBCU teams to experience modeling and problem-solving with emphasis on exploratory learning. Subject matter experts facilitated the sessions and discussions providing best practices in teaching refocused college algebra.

During the workshop, each school team, assisted by a mentor, finalized a reform plan and an implementation strategy suitable to their school. The "Follow-On" portion of the program entails a mentor making two site visits to each school. COL(R) Kathleen Snook, the outside evaluator for the program, will conduct a research study on the effectiveness of refocusing college algebra.

## CAARMS 12

The twelfth Conference for African American Researchers in the Mathematical Sciences (CAARMS) was held June 20-23, 2006 in Chapel Hill, North Carolina. The conference was sponsored by the University of North Carolina, SAMSRI, and NSA.


Donald King, Scott Williams and Angela Grant at CAARMS 12
Speakers at the "all North Carolina CAARMS" were Arlie Petters (Duke University), Kimberley Weems (North Carolina State University), Rudy Horne (Florida State University), Dominic Clemence (North Carolina A. and T. University), Charles Hagwood (National Institute of Standards and Technology), Ethelbert Chukwu (North Carolina State University), Chris Jones (SAMSI and North Carolina State University), Jeffery Forbes (Duke University), Gelonia Dent (North Carolina Agricultural and Technical State University), Johnny Houston (Elizabeth City State University), Farah Jackson Chandler (University of North Carolina Wilmingto), Otis Jennings (Duke

At this CAARMS twenty poster presentations were given. Awards went to poster presenters Etienne Ogoubi (University of Montreal), Stephanie Somersille (University of California at Berkeley), Irene Mosesh (Howard University), Luke Stewart (Duke University) shown left to right in the photo below. CAARMS 13 is anticipated to be June 19-22, 2007 at Boston University.


## SUMSRI 2006

The Summer Undergraduate Mathematical Sciences Research Institute (SUMSRI) was held at Miami University in Ohio in June and July, 2006. Fifteen students attended the Institute for seven weeks. Of these students, eight were African American and eleven were women. During the first three weeks, the participants studied abstract algebra, real analysis, and mathematical writing. They also took a workshop on preparation for the GRE and attended research seminars where they were introduced to challenging mathematical and statistical concepts needed to conduct research on problems provided by their research seminar directors.

Each group wrote a paper and presented their results to the Institute and the Miami Mathematics and Statistics faculty at the end of the seven weeks. The number theory group, led by Dr. Edray Goins of Purdue University, wrote a paper entitled "Elliptic Curves of Rank 4: Searching for a Needle in a Haystack". The algebra group directed by Dr. Reza Akhtar of Miami University wrote a paper entitled "The Structure of Zero-Divisor Sum Graphs". The group studying multivariate statistics, led by Dr. Vasant Waikar of Miami University, wrote two papers "Reckless or Responsible: A Multivariate Statistical Analysis of Consumer Spending" and "Education By Nation: A Multivariate Statistical Analysis".

The program includes a series of colloquium talks given by mathematical scientist from a variety of fields. The following invited colloquium talks were given:

- Stephanie Edwards from University of Dayton, "The $P^{2}+P^{\prime}$ Problem"
- Ivelisse Rubio from the University of Puerto Rico, Humacao, "On the Number of Solutions of Systems of Polynomial Equations Over Finite Fields"
- Angela Grant from Northwestern University, "Finding Optimal Orbits on Chaotic Systems"
- Dan Pritikin from Miami University, "k-dependence and $\Omega$-domination in Kings Graphs"
- Bob Krile from Battelle, Inc., "Using Statistics and Mathematics at Battelle"
- Lloyd Edward from the University of North Carolina, Chapel Hill, "Biostatistics as a Career"
- Emily Murphree from Miami University, "A Model and Estimation Procedure for Non-invasive Sampling"
- Ken Ono from University of Wisconsin, "The Number of Partitions: The Legacy of Euler, Freeman Dyson and Ramanujan"
- Jamylle Carter from San Francisco State University, "A Multigrid Method for Dual Total Variation-Based Image Restoration"
- Kyoungah See from Miami University/Eli Lilly Co., "How Statisticians Do Drugs"
- Lloyd Douglas from the National Science Foundation, "Careers in Mathematical Sciences and Funding Opportunities at the National Science Foundation".

SUMSRI seeks talented mathematics and statistics students who have completed at least two years of college level mathematics with distinction, including the complete calculus series and at least one proof based course. SUMSRI will begin taking applications for the summer of 2007 in January. SUMSRI pays for the students travel, room, board, and supplies. Each student is also be given a $\$ 2,850$ stipend. The program also provides funds for each student to attend a national mathematical science meeting to present their results. The application deadline is March 1, 2007. To find out more about SUMSRI, please consult the website http://www.units. muohio.edu/sumsri/.

## Young Mathematician's Network

Project NExT and the Young Mathematician's Network invite submissions of abstracts for a poster session to be held on Friday, January 5, 2007 from 2:15 to 4:15 p.m. (room TBA) at the Joint Mathematics Meetings in New Orleans. The poster size will be 48 " by 36 "; it is best to have the posters 36 " high.

Posters and materials for posting pages on the posters will be provided on-site. We expect to accept about thirty posters from different areas within the mathematical sciences. Should you have a special requirement involving a computer hook-up, please let us know and we will check to see if it may be accommodated. If you are interested in participating, submit copies of your abstract to:

Professor Mike Axtell<br>Department of Mathematics and Computer Science, Wabash College<br>P. O. Box 352, Crawfordsville, IN 47933-0352<br>Phone: (317) 496-7995, e-mail: axtellm@wabash.edu<br>and<br>Professor Kevin Charlwood<br>Department of Math and Statistics, Morgan Hall 275 D,Washburn University<br>Topeka, KS 66621<br>Phone: (785) 670-1499, e-mail: kevin.charlwood@washburn.edu

Our poster sessions the past ten years were a great success. Visitors to the session each year were numerous, and included many prospective employers. This session provides an excellent way to showcase one's work in a relaxed, informal environment

The deadline for final consideration is December 8, 2006. Preference will be given to those who did not earn a Ph.D. prior to 2001; please include with your submission when and where you received your Ph.D., or indicate when you expect to receive it. Please submit your abstract via e-mail, not an attachment. If it includes mathematical formulas, please submit it in basic LaTeX or TeX format. Submissions will be acknowledged quickly by e-mail. Accepted abstracts will be posted at http://www.youngmath.net/Documents/2007/Posters/ before the Joint Meetings.

## Job Openings

Recall that for several years, NAM has had a web site with listings of open positions. This process is open to advertisers in the Newsletter. Advertisements too late for the publication date appear there. The remainder of the advertisements appear there six or more weeks before they appear in print in the Newsletter. See the editor's NAM web site within MAD: http://www.math.buffalo.edu/mad/NAM/

## Institute for Advanced Study

The Institute for Advanced Study, School of Mathematics has a limited number of memberships, some with financial support for research in mathematics and computer science at the Institute during the 2007-08 academic year. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree.
During the 2007-08 academic year, Roman Bezrukavnikov of MIT will lead a special program on algebraic geometry and physics in representation theory. During term I of the year, School faculty member Jean Bourgain and Van Vu of Rutgers University will lead a program on arithmetic combinatorics.

The School of Mathematics and the Department of Mathematics at Princeton University have established the Veblen Research Instructorship, and three-year instructorships will be offered each year to candidates who have received their Ph.D. within the last 3 years. The first and third year of the instructorship will be spent at Princeton University and will carryregular teaching responsibilities. The second year will be spent at the Institute and dedicated to independent research of the instructor's choice.
Application materials for both the IAS MEMBERSHIPS and the VEBLEN RESEARCH INSTRUCTORSHIP positions may be requested from Applications, School of Mathematics, Institute for Advanced Study, Einstein Drive, Princeton, NJ 08540, e-mail: applications@math.ias.edu. Application forms may be downloaded via a web connection to http://www.math.ias.edu. Both deadlines are December 1.

## Carleton College, Statistics: Tenure-track

The Department of Mathematics at Carleton College invites applications for a tenure-track assistant professor appointment in statistics beginning Fall 2007. A Ph.D. in statistics or biostatistics required. A Ph.D. in one of the mathematical sciences with applied statistical experience may also be considered. Under specialÂ circumstances, candidates at a higher rank may be considered. Excellence in teaching, a strong commitment to the liberal arts, and an active scholarly agenda are expected. Numerous opportunities exist for teaching, consulting, and research collaborations across campus. The successful applicant, along with two other faculty members whose primary interests are in statistics, will play an instrumental role in the continuing development of our statistics program.
Carleton College is ranked among the top national liberal arts colleges in the country and provides significant support for instructional development and scholarship. The department has two teaching laboratories equipped with Windows PCs. Software packages installed on the computers include S-PLUS, R, SPSS, and Mathematica. The department also employs a full-time computer technician/system administrator. The college is located in a beautiful small town, approximately forty minutes south of Minneapolis and sixty minutes north of the Mayo Clinic in Rochester.
Review of applications will begin December 1, 2006 and will continue until the position is filled. Send a curriculum vitae, a teaching statement, three letters of reference (at least one which addresses your teaching), and graduate school transcripts, all in hard copy, to: Statistics Search Chair, Department of Mathematics, Carleton College, Northfield, MN 55057. The teaching statement should include your ideas on instructional or curricular design considerations for diverse learners at introductory or advanced levels.
Carleton College is an affirmative action/equal opportunity employer. We are committed to developing our faculty to better reflect the diversity of our student body and American society. Women and members of minority groups are strongly encouraged to apply. For more information about the position and the department, please visit http://www.math.carleton.edu/ , or send e-mail to statsearch@carleton.edu.

## Purdue University

Applications are invited for tenure-track Assistant Professor appointments, or three-year Visiting Assistant Professor (Research Assistant Professor) appointments, beginning August 2007. Ph.D. by August 13, 2007, exceptional research promise, and strong teaching record are required.
Applications will also be accepted for possible appointments at the Associate Professor/Professor level. Ph.D. and excellence in research and teaching are required.
Outstanding applicants from various mathematical research areas will be considered. Because the department has several openings in applied mathematics, candidates who have significant research accomplishments in applied mathematics or computational applied mathematics are especially encouraged to apply.
All applicants should have research interests in common with Purdue faculty. Send vita, summary of research interests/plans, and arrange for three letters of recommendation (one addressing teaching) to be sent to: Head, Department of Mathematics Purdue University, 150 N. University St., West Lafayette, IN 47907-2067.
Review of applications will begin November 1, 2006 and continue until available positions are filled. Offers for tenured and tenure-track positions may be made at any time; some offers for Visiting Assistant Professor (Research Assistant Professor) positions will be made before the end of January 2007.
The Mathematics Department is participating in the development of several interdisciplinary research clusters at Purdue. Please refer to http://www.science.purdue.edu/COALESCE/ for details about these positions and application procedures.
Purdue University is an Affirmative Action/Equal Access/Equal Opportunity Employer.

## SUNY Geneseo

The Department of Mathematics at SUNY Geneseo is conducting a search for a tenure track faculty position to begin the fall semester, 2007. Qualified candidates from all fields of the mathematical sciences, including statistics, will be considered. The particular field is less important than the ability and willingness to assume responsibilities as needed in a department with approximately 20 faculty and 240 majors. Interested candidates can find additional information and apply online at http://jobs.geneseo.edu.

## Southern Illinois University Carbondale Department of Mathematics - Mathematics Education Position

Applications are invited for a tenure-track position at the rank of associate professor to begin on August 16, 2007, to support the department's programs in mathematics education as part of an on-going Teaching Excellence in Mathematics and Science initiative. The person hired into this position will be expected to seek external funding in the area of mathematics education and to maintain an active research program. Teaching and service duties of the position will involve the training of teachers at the elementary and secondary levels. Applicants must demonstrate a record of established research productivity in an area of pure or applied mathematics and a record of teaching excellence commensurate with the rank of associate professor, have an established record of success in acquiring external grants and/or contracts, and have an interest in and aptitude for educating prospective teachers of mathematics. Ph.D. in pure or applied mathematics required by August 15, 2007. To apply, please send letter of application, curriculum vitae and statements of research and teaching interests, and have three letters of recommendation sent, to: Mathematics Education Position, Department of Mathematics, Mail Code 4408, Southern Illinois University Carbondale, 1245 Lincoln Drive, Carbondale, Illinois 62901. Review of applications will begin November 27, 2006, and continue until position is filled. SIUC is an affirmative action/equal opportunity employer that strives to enhance its ability to develop a diverse faculty and staff and to increase its potential to serve a diverse student population. All applications are welcomed and encouraged and will receive consideration.

## University at Buffalo, The State University of New York

The Department of Mathematics anticipates the appointment of several tenure-track assistant professors, effective August, 2007. Salary will be competitive. We seek candidates from all fields, particularly Algebra and Applied Mathematics. Applicants should have excellent research accomplishments and potential, a Ph.D. in the mathematical sciences and a strong commitment to teaching.
A complete application consists of a curriculum vitae, a statement of research interests and four letters of recommendation. These materials should be sent to:
Search Committee; Department of Mathematics; University at Buffalo, The State University of New York, Mathematics Building 244; Buffalo, NY 14260-2900
The deadline for applications is November 7, 2006. Late applications will be considered until the positions are filled. No electronic applications will be accepted.
The University at Buffalo is an Equal Opportunity Employer/Recruiter. We are interested in identifying prospective minority and women candidates. No person, in whatever relationship with the University at Buffalo, shall be subject to discrimination on the basis of age, color, creed, handicap, marital status, national origin, race, religion, sex, sexual orientation or veteran status.

## Brandeis University

Brandeis University Department of Mathematics invites applications for 1 or 2 tenure-track positions at the rank of assistant professor beginning fall 2007. A Ph.D. and demonstrated excellence in research and teaching are required. A more advanced appointment for candidates with exceptional qualifications may be considered. Candidates from all areas of mathematics will be considered, but preference for one position will be given to candidates in algebra, number theory, or algebraic geometry. Applications should include an AMS coversheet, a curriculum vita, and four letters of recommendation, one of which addresses teaching effectiveness. Applications may be submitted through www.mathjobs.org (preferably) or sent to: Hiring Committee, Department of Mathematics, MS 050, Brandeis University, Waltham, MA 02454-9110. To receive full consideration, applications must be received by December 1. Brandeis University is an equal opportunity employer, committed to building a culturally diverse intellectual community, and strongly encourages applications from women and minority candidates.

## University of Virginia

The University of Virginia Department of Mathematics invites applications for two positions beginning in Fall 2007. The first position will be filled at the tenured or tenure-track level; the second will be filled at tenure-track level. Priority areas for the first position are Combinatorics, Cryptography, Elliptic Curves and related fields. Priority areas for the second position are Mathematical Physics, Operator Algebras, Harmonic Analysis, Differential Equations, Topology, and Infinite-Dimensional Algebras. The department has the option of interchanging the priority areas for the two positions should circumstances warrant.
The Ph.D. is required. Applicants must present evidence of outstanding accomplishments in both research and teaching. Applications from women and minorities are especially encouraged.
For full consideration, candidates should submit their applications at www.MathJobs.org by November 15, 2006. All files must contain a letter of application, a curriculum vitae, and at least four letters of recommendation, one of which should support the applicant's effectiveness as a teacher. In addition, a teaching statement and a research statement are required. More information about these positions and our department can be found at www.math.virginia.edu.

The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

## University of Pittsburgh <br> Representation Theory/Algebraic Geometry/Number Theory/Combinatorics

The Mathematics Department of the University of Pittsburgh invites applications for a tenure-track position in Representation Theory/Algebraic Geometry/Number Theory/Combinatorics to begin in the Fall Term 2007, pending budgetary approval. The appointment is at the Assistant Professor level or above, depending on the credentials of the applicant. We seek excellence in teaching and research so applicants should demonstrate substantial research accomplishment and dedication to teaching. Send a vita, three letters of recommendation, a research statement and evidence of teaching accomplishments to: Search Committee in Algebra, Department of Mathematics, University of Pittsburgh, Pittsburgh, PA 15260. Review of completed files will begin on November 30, 2006 and continue until the position is filled. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply.

## Analysis (Complex, Harmonic, Functional, PDE, Probabilistic)

The Mathematics Department of the University of Pittsburgh invites applications for a tenure-track position in Analysis to begin in the Fall Term 2007, pending budgetary approval. The appointment is at the Assistant Professor level. We seek excellence in teaching and research so applicants should demonstrate substantial research accomplishment and dedication to teaching. Send a vita, three letters of recommendation, a research statement and evidence of teaching accomplishments to: Search Committee in Analysis, Department of Mathematics, University of Pittsburgh, Pittsburgh, PA 15260. Review of completed files will begin on November 30, 2006 and continue until the position is filled. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply.

## Applied Analysis (Dynamical Systems, PDE, ODE, Stochastic)

The Mathematics Department of the University of Pittsburgh invites applications for a tenure-track position in -Applied Analysis to begin in the Fall Term 2007, pending budgetary approval. The appointment is at the Assistant Professor level. We seek excellence in teaching and research so applicants should demonstrate substantial research accomplishment and dedication to teaching.
Send a vita, three letters of recommendation, a research statement and evidence of teaching accomplishments to: Search Committee in Analysis, Department of Mathematics, University of Pittsburgh, Pittsburgh, PA 15260. Review of completed files will begin on November 30, 2006 and continue until the position is filled. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply.

# Mathematical Association of America, Washington, DC Director of Publications for Journals and Communications 

The Mathematical Association of America (MAA) seeks a Director of Publications for Journals and Communications. The primary responsibilities of the position are to oversee journals and other periodicals and content and resources on the MAA website. In addition, the Director will perform other duties related to communications of the MAA to our members, the public, and other specific constituencies. Candidates should have a Ph.D. in the mathematical sciences. Requirements include editorial experience, writing articles for journals, periodicals, and the web, and an interest in creating web content. Candidates should be familiar with the MAA, have a strong interest in writing and publication, and express a vision for MAA periodical publicvations in print and online.

More information about this position and about the MAA may be found at http://www.maa.org/. Applications will be accepted and reviewed as received. It is expected that the position will begin July 1, 2007, though a January start date will be considered. Candidates should send a resume and letter of interest to: Ms. Calluna Euving; Mathematical Association of America; 1529 18th Street, NW; Washington, DC 20036; Email: ceuving@maa.org.References will be requested after review of applications. Applications from individuals from underrepresented groups are encouraged. AA/EOE.

# Mathematical Association of America, Washington, DC Associate Director for Student Activities 

The Mathematical Association of America (MAA) seeks an Associate Director for Student Activities. The Association, with nearly 30,000 members, is dedicated to the advancement of mathematics, particularly at the collegiate level. The Associate Director will oversee a wide range of activities for both undergraduate and graduate students and develops new initiatives to advance the MAA in the area of student services and programs. Candidates should have an advanced degree in one of the mathematical sciences, and experience working with students both in and outside of the classroom through math clubs and/or mentoring undergraduate research. Experience using on-line instruction or development of web content is a plus.
More information about this position and about the MAA may be found at http://www.maa.org/. Applications will be accepted and reviewed as received, but it is expected that the position will begin July 1, 2007, though a January start date will be considered. Candidates should send a resume and letter of interest to: Ms. Calluna Euving; Mathematical Association of America; 1529 18 ${ }^{\text {th }}$ Street, NW; Washington, DC 20036; Email: ceuving@maa.org.
Applications may be submitted electronically to ceuving@maa.org. References will be requested after review of applications. Applications from individuals from underrepresented groups are encouraged. AA/EOE.

## Northwestern University Tenured or Tenure-track

Applications are invited for an anticipated tenured or tenure-track position starting September 2007. Priority will be given to exceptionally promising research mathematicians. We invite applications from qualified mathematicians in all fields.
Application material should be sent to Personnel Committee, at the department address and include: (1) the American Mathematical Society's Application Cover Sheet for Academic Employment, (2) a curriculum vitae, and (3) at least four letters of recommendation including one which discusses in some detail the candidate's teaching qualifications. It is recommended that applications be submitted electronically to Mathjobs.org. Inquiries may be sent via e-mail to: hiring@math.northwestern.edu
Applications are welcome at any time, but the review process starts in November 2006.
Northwestern University is an affirmative action, equal opportunity employer committed to fostering a diverse faculty; women and minority candidates are especially encouraged to apply.

Northwestern University; Department of Mathematics
2033 Sheridan Road; Evanston, Illinois 60208-273

## Northwestern University Ralph Boas Assistant Professorship

Applications are solicited for up to three Ralph Boas assistant professorships of three years each starting September 2007. These are non-tenure track positions with a teaching load of four quarter courses per year. We invite applications from qualified mathematicians in all fields.
Applications should be made electronically at www.mathjobs.org and should include (1) the American Mathematical Society Cover Sheet for Academic Employment, (2) a curriculum vitae, (3) a research statement, and (4) three letters of recommendation, one of which discusses the candidate's teaching qualifications. Inquiries may be sent to: boas@math.northwestern.edu.
Applications are welcomed at any time, but the review process starts December 1, 2006. Northwestern University is an affirmative action, equal opportunity employer committed to fostering a diverse faculty; women and minority candidates are especially encouraged to apply.

Northwestern University; Department of Mathematics
2033 Sheridan Road; Evanston, Illinois 60208-273

## Lehigh University - probability and statistics

The Lehigh Department of Mathematics seeks to build on its strengths in probability and statistics by hiring at the Assistant Professor level in mathematical statistics/probability, with interest in statistical applications. A successful candidate will demonstrate great research potential, and have a record of successful teaching commensurate with the position. Applications from new and recent Ph.D.'s are welcome.
The College of Arts and Sciences at Lehigh is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community. As part of their application, candidates should submit: (a) an AMS cover sheet; (b) a complete vita, including a list of publications; (c) a research plan; (d) a statement of teaching philosophy; and (e) at least four letters of recommendation, at least one of which addresses the candidate's teaching.
Applications received by November 15 will be assured of full consideration. Application materials should be sent to:

Statistics Hiring Committee; Department of Mathematics
Lehigh University; Bethlehem, PA 18015-3174
Lehigh University is an Equal Opportunity/Affirmative Action employer. For more information about the position or institution: http://www.lehigh.edu/~math

## Lehigh University - pure mathematics

The Lehigh Department of Mathematics seeks to build on its strengths in pure mathematics by hiring at the Assistant Professor level in analysis, with preference for stochastic or nonlinear differential equations, harmonic analysis, or random matrices.
A successful candidate will demonstrate great research potential, and have a record of successful teaching commensurate with the position. Applications from new and recent Ph.D.'s are welcome.
The College of Arts and Sciences at Lehigh is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community.
As part of their application, candidates should submit: (a) an AMS cover sheet; (b) a complete vita, including a list of publications; (c) a research plan; (d) a statement of teaching philosophy; and (e) at least four letters of recommendation, at least one of which addresses the candidate's teaching.
Applications received by November 15 will be assured of full consideration. Application materials should be sent to:

Analysis Hiring Committee; Department of Mathematics
Lehigh University; Bethlehem, PA 18015-3174
Lehigh University is an Equal Opportunity/Affirmative Action employer. For more information about the position or institution: http://www.lehigh.edu/~math

## University of Dayton Numerical Analysis or Computational Partial Differential Equations

Applications are invited for a tenure track position in the Department of Mathematics at the assistant professor level starting in August 2007. The position focuses on numerical analysis or computational partial differential equations.
Candidates must have a Ph.D. in mathematics. Candidates must have a commitment to teaching, advisement, curriculum development, and research supervision at both the undergraduate and graduate levels. The successful candidate will be expected to develop an ongoing research agenda. The candidate will have opportunities to support computational mathematics in a new master's program in financial mathematics and in a traditional master's program in applied mathematics; the candidate will be encouraged to support research efforts initiated in the School of Engineering.
To receive full consideration, all materials must be received by January 12, 2007. A complete application consists of a resume, three letters of recommendation, a statement of research and professional plans, a statement of teaching philosophy, and a graduate transcript. Both teaching abilities and research abilities should be addressed in the letters of recommendation. Please include an e-mail address in your correspondence.
Send applications to: Dr. Robert Gorton, Chair of the Computational Mathematics Search Committee, Department of Mathematics, University of Dayton, Dayton, OH 45469-2316. Contact the search committee at Robert. Gorton@notes.udayton.edu. For further information, see http://www.udayton.edu/~mathdept.
The University of Dayton is a private comprehensive Catholic university founded by the Society of Mary in 1850. It has more than 6000 undergraduate and 3000 graduate students. The Department of Mathematics offers baccalaureate degrees in mathematics and applied mathematical economics, and master's degrees in applied mathematics, financial mathematics, and mathematics education. The University of Dayton is an Equal Opportunity/Affirmative Action employer. Women, minorities, individuals with disabilities, and veterans are encouraged to apply. The University of Dayton is firmly committed to the principle of diversity.

## University of Dayton <br> Mathematics Education

Applications are invited for a tenure track position in the Department of Mathematics at the assistant professor level starting in August 2007. The position focuses on mathematics education.
Candidates must have a Ph.D. in mathematics education with a master's degree in mathematics or a Ph.D. in mathematics. Candidates must have a commitment to teaching, advisement, curriculum development, and research supervision at both the undergraduate and graduate levels. The successful candidate will be expected to develop an ongoing professional/research agenda, support outreach programs in cooperation with departmental colleagues and the School of Education, and support a new master's program in mathematics education. Further responsibilities include teaching responsibilities in an undergraduate liberal arts and sciences program.
To receive full consideration, all materials must be received by January 12, 2007. A complete application consists of a resume, three letters of recommendation, a statement of research and professional plans, a statement of teaching philosophy, and a graduate transcript. Both teaching abilities and research abilities should be addressed in the letters of recommendation. Please include an e-mail address in your correspondence.
Send applications to: Dr. Robert Gorton, Chair of the Mathematics Education Search Committee, Department of Mathematics, University of Dayton, Dayton, OH 45469-2316. Contact the search committee at Robert. Gorton@notes.udayton.edu. For further information, see http://www.udayton.edu/~mathdept.
The University of Dayton is a private comprehensive Catholic university founded by the Society of Mary in 1850. It has more than 6000 undergraduate and 3000 graduate students. The Department of Mathematics offers baccalaureate degrees in mathematics and applied mathematical economics, and master's degrees in applied mathematics, financial mathematics, and mathematics education. The University of Dayton is an Equal Opportunity/Affirmative Action employer. Women, minorities, individuals with disabilities, and veterans are encouraged to apply. The University of Dayton is firmly committed to the principle of diversity.

## Winthrop University

Tenure track assistant professor position beginning fall 2007: Ph.D. in mathematics, statistics, or mathematics education required. ABDs will be considered for non-tenure track instructor position if suitable tenure track applicant is not found. More information is available at www.winthrop.edu/mathdpt/employment.htm. A completed application letter, application form, vita, documented evidence of teaching excellence, teaching philosophy, transcript of terminal degree, and three letters of reference are required.
Applications will be reviewed 12/04/06; application materials received after the deadline may be considered if an acceptable candidate has not been selected. No e-mail applications will be accepted. Send applications to: Search Committee, Department of Mathematics, Winthrop University, Rock Hill, SC 29733. Winthrop is a state-supported university in SC located 20 miles south of Charlotte, NC. EOE.

## Georgia Southern University

Georgia Southern University's Department of Mathematical Sciences invites applications for an Associate/Assistant Professor of Mathematics position and three positions of Assistant Professor of Mathematics. The full text advertisement, including information about the department, faculty, and the complete position announcement with all qualifications and application instructions, is available at http://cost.georgiasouthern.edu/math/. Screening of completed applications begins October 2, 2006, and continues until the positions are filled. Georgia Southern seeks to recruit individuals who are committed to excellence in teaching, scholarship, and professional service within the University and beyond and who are committed to working in diverse academic and professional communities. Georgia is an open records state. Georgia Southern is an AA/EO institution. Individuals who need reasonable accommodations under the ADA to participate in the search process should contact the Associate Provost.

Macalester College, Saint Paul, MN<br>Applied and Theoretical Mathematics

Applications are invited for two tenure track positions to begin Fall 2007, one in applied and one in theoretical mathematics. A Ph.D. and the potentia for teaching excellence supported by a strong research program are required. Relevant specialties in applied math include mathematical modeling, optimization, and/or related fields. For theoretical math, we seek candidates with strengths in computational geometry, topology, or related visual fields. We encourage exceptional candidates in any field to apply. For more information and application instructions see: http://www.macalester.edu/mathcs/
Our department has broad interests in theoretical and applied mathematics, statistics, and computational science. Macalester College is a selective, private liberal arts college located in the Minneapolis-St. Paul metropolitan area. As an Equal Opportunity employer, the College encourages applications from women and members of underrepresented minority groups.

# University of Illinois at Chicago - Research Assistant Professorship 

Department of Mathematics, Statistics, and Computer Science. The Department has active research programs in centrally important areas of pure mathematics, computational and applied mathematics, combinatorics and computer science, statistics, and mathematics education. See http://www.math.uic.edu for more information. Applications are invited for the following position, effective August 16, 2007, subject to budgetary approval.
Research Assistant Professorship. This is a non-tenure track position, normally renewable annually to a maximum of three years. This position carries a teaching responsibility of one course per semester, and the expectation that the incumbent play a significant role in the research life of the Department. The salary for AY 2006-2007 for this position is $\$ 52,000$, the salary for AY 2007-2008 may be higher. Applicants must have a Ph.D. or equivalent degree in mathematics, computer science, statistics, mathematics education or related field, and evidence of outstanding research potential.
Send vita and at least three (3) letters of recommendation, clearly indicating the position being applied for, to: Appointments Committee; Dept. of Mathematics, Statistics, and Computer Science; University of Illinois at Chicago; 851 S. Morgan (m/c 249); Box R; Chicago, IL 60607. Applications through mathjobs.org are encouraged. No e-mail applications will be accepted. To ensure full consideration, materials must be received by November 30, 2006. However, we will continue considering candidates until all positions have been filled. Minorities, persons with disabilities, and women are particularly encouraged to apply. UIC is an AA/EOE.

## University of Illinois at Chicago - Tenure track positions

Department of Mathematics, Statistics, and Computer Science. The Department has active research programs in centrally important areas of pure mathematics, computational and applied mathematics, combinatorics and computer science, statistics, and mathematics education. See http://www.math.uic.edu for more information. Applications are invited for the following positions, effective August 16, 2007, subject to budgetary approval. Tenure track positions. Candidates in all areas of interest to the Department will be considered. The position is at the Assistant Professor level. Applicants must have a Ph.D. or equivalent degree in mathematics, computer science, statistics, mathematics education or related field, an outstanding research record, and evidence of strong teaching ability. The salary is negotiable.
Send vita and at least three (3) letters of recommendation, clearly indicating the position being applied for, to: Appointments Committee; Dept. of Mathematics, Statistics, and Computer Science; University of Illinois at Chicago; 851 S . Morgan (m/c 249); Box T; Chicago, IL 60607. Applications through mathjobs.org are encouraged. No e-mail applications will be accepted. To ensure full consideration, materials must be received by November 16, 2006. However, we will continue considering candidates until all positions have been filled. Minorities, persons with disabilities, and women are particularly encouraged to apply. UIC is an AA/EOE.

# Dartmouth College John Wesley Young Research Instructorship 

The John Wesley Young Instructorship is a postdoctoral, two- to three-year appointment intended for promising Ph.D. graduates with strong interests in both research and teaching and whose research interests overlap a department member's. Current research areas include applied mathematics, combinatorics, geometry, logic, noncommutative geometry, number theory, operator algebras, probability, set theory, and topology. Instructors teach four ten-week courses distributed over three terms, though one of these terms in residence may be free of teaching. The assignments normally include introductory, advanced undergraduate, and graduate courses. Instructors usually teach at least one course in their own specialty. This appointment is for 26 months with a monthly salary of $\$ 4,650.00$ and a possible 12 month renewal. Salary includes two-month research stipend for Instructors in residence during two of the three summer months. To be eligible for a 2007-2009 Instructorship, candidate must be able to complete all requirements for the Ph.D. degree before September 2007. Applications may be obtained at [http://www.math.dartmouth.edu/recruiting/](http://www.math.dartmouth.edu/recruiting/). Or, submit a letter of application, curriculum vitae, graduate school transcript, thesis abstract, statement of research plans and interests, and at least three, preferably four, letters of recommendation to Annette Luce, Department of Mathematics, Dartmouth College, 6188 Kemeny Hall, Hanover, New Hampshire 03755-3551. At least one referee should comment on applicant's teaching ability; at least two referees should write about applicant's research ability. Applications received by January 5, 2007 receive first consideration; applications will be accepted until position is filled. Dartmouth College is committed to diversity and strongly encourages applications from women and minorities.

## Dartmouth College Tenure Track

The Department of Mathematics anticipates a tenure-track opening with initial appointment in the 2007-2008 academic year. In extraordinary cases, appointment at a higher rank is possible. Preference is given to candidates working in discrete or combinatorial mathematics with connections to existing research interests in the department, including discrete probability, graph theory, algebraic combinatorics, combinatorial number theory, and discrete geometry. Candidates for the position must be committed to outstanding teaching and interaction with students at all levels of undergraduate and graduate study.
To create an atmosphere supportive of research, Dartmouth offers new faculty members grants for researchrelated expenses, a quarter of sabbatical leave for each three academic years in residence, and flexible scheduling of teaching responsibilities. The teaching responsibility in mathematics is three courses spread over three of four ten-week terms.
Applications may be obtained at [http://www.math.dartmouth.edu/recruiting/](http://www.math.dartmouth.edu/recruiting/). Or, send a letter of application, curriculum vitae, and a brief statement of research results and interests, and arrange for four letters of reference, at least one of which specifically addresses teaching, to be sent to Annette Luce, Recruiting Secretary, Department of Mathematics, Dartmouth College, 6188 Kemeny Hall, Hanover, New Hampshire 03755-3551. Applications received by December 15, 2006 will receive first consideration.
Dartmouth College is committed to diversity and strongly encourages applications from women and minorities. Inquiries about the progress of the selection process may be directed to Dana Williams, Recruiting Chair.

## Monmouth University

The Mathematics Department of Monmouth University is seeking two full-time faculty members for tenure track appointments which start August 30, 2007. Dedicated, effective teaching is the primary responsibility. There are expectations of university service and of continued scholarly activity consistent with a 9-credit per semester teaching load.

One position requires a Ph.D. in statistics (or strong recent statistical experience and a Ph.D. in mathematics or applied mathematics); consulting experience is preferred. The second position requires a Ph.D. in mathematics, applied mathematics; or a Ph.D. in mathematics education with at least a master's degree in mathematics.

The Mathematics Department has 13 full-time faculty. The Department offers baccalaureate programs in mathematics and mathematics education. More information about the department can be found at http://www. monmouth.edu/academics/deptlinks/mathematics.asp. If you have any questions, contact the chair of the search committee, Bonnie Gold, bgold@monmouth.edu.
Applicants should send cover letter, resume, teaching and research statements, departmental application form (available at http://mathematics.monmouth.edu/app/GenAppl/form.htm or request by telephone from the
department office coordinator, 732-571-4461), copies of graduate transcripts, and 3 letters of reference, at least one of which should discuss the applicant's teaching, and, for the statistics position, one of which should discuss the applicant's applied statistical experience, to: Chair, Department of Mathematics, c/o Doreen Brown, Monmouth University, West Long Branch, NJ 07764-1898.

Applications and supporting materials must be postmarked on or before December 1, 2006 to assure full consideration. The University is committed to creating a more diverse environment.

## NAM Calendar

You can find NAM's Online Conference Calendar and the most recent links to relevant conferences announcements at http://www.caam.rice.edu/~nated/orgs/nam/programs/conferences.html Many of NAM's events are posted on the NAM headquarters website http://jewel.morgan.edu/~nam/

## NAM Board, Elections and Terms

For Nominations to the NAM Board, Elections and Terms please contact NAM's Majority Institution member and election supervisor Dr. Earl Barnes School of Industrial Systems Engineering; Georgia Institute of Technology; Atlanta, GA 30332-0205 by August 1. Make certain the nominated individual agrees to run, and serve if elected. Send vita data such as Name, email address, School, position, and date of last degree.

All members of the Board shall be elected to a term of office for a period of two years and elections shall be staggered for continuity. Regular elections shall occur in the fall of each year and the persons elected shall be duly installed at the first Annual NAM meeting following the election. The term of each elected position is three (3) years. The editor will be an appointed position for a period of three years. The Editor shall be responsible for the production of the Newsletter and shall perform such other duties as the Board of Directors may specify. The Executive Secretary shall be selected to serve for a period of five (5) years and shall begin the term of office at the Spring Board Meeting. His/her selection must be the unanimous choice of the existing Board of Directors.

The election of the members of the Board of Directors shall be by official ballots and shall be supervised by the Board of Director's Committee on Legislation-Nomination when the election is by mail, all current members in good standing in NAM shall be provided a ballot and given reasonable time to return it.
The election cycle is shown below :

In 2005: President; Region A Representative; Government/Industry Representative.
In 2006: Vice President; Region B representative; Majority Institution Representative
In 2007: Secretary/Treasurer; Region C Representative; Community College Representative.
In 2008: President; Region A Representative; Government/Industry Representative.

Name $\qquad$
Address $\qquad$

Institution/Employer $\qquad$
$\qquad$
Fax ( ) $\qquad$ E-mail Address $\qquad$

## Select Appropriate Membership Type

Student : \$15$\square$ Individual : \$25Contributing : \$50
Sustaining : \$75
$\square$ Institutional : \$100Life : \$400

PLEASE RETURN THIS COMPLETED FORM AND MEMBERSHIP DUES TO :<br>Dr. Roselyn Williams, Secretary-Treasurer<br>National Association of Mathematicians;<br>P.O. Box 5766<br>Tallahassee, Florida 32314-5766<br>Phone: (850) 412-5236 (O) E-mail: roselyn.williams@mail.famu.edu

Individuals and Students: Please complete below if you did not send NAM this information within the past three years.
List all degrees you currently hold. Circle the correct degree.
B.S. or B.A.: Area $\qquad$ Institution
M.S. or M.A.: Area

Ph.D. or Ed.D.:Area
Other: Area $\qquad$ Institution Institution Other: Area Institution

## Desired Participation in NAM

Institutional Representative (for NAM)
Area or State Representative $\qquad$
$\square$ Committee Membership (specify interest):
Need additional information about the organizational structure of NAM
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Hispanic American $\square$ White $\square$ Other $\square$

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archive/HAWKINSW.HTM

## EST Program

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Prairie View, TX 77446

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faculty/Earl_Barnes/
Mathematical and Computational
Sciences Division,
Gaithersburg, MD 20899-8910
http://math.nist.gov/mcsd/Staff/FHunt/index.html

13103 Balarama Drive
Houston, TX 77099-2206
http://198.64.21.135/faculty/Giles/ Jacqueline_Giles_Personal_Web_

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http://www.math.buffalo.edu/~sww
Department of Mathematics
Morgan State University
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jlhouston@mail.ecsu.edu

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Virgin Islands
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Maryland
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## NAM Newsletter

Scott Williams
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