national association of mathematicians

CONTENTS

volume XXXVI number 3 fall 2005

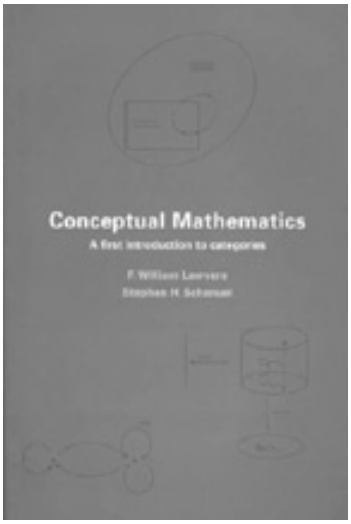
IN THE NEWS

NAM's MathFest has been moved from New Orleans to Texas Southern University in Houston, November 10 through November 12, 2005. Information and registration forms are at NAM Headquarters website, http://jewel.morgan.edu/~nam/

Morehouse-Spelman-MSRI Modern Mathematics Conference November 5-6, 2005. For more information see the article inside.

Conceptual Mathematics

a review by Scott W. Williams



Not long ago, I spoke with a professor at strong HBCU department. Her Ph.D. was nearly twenty years ago, but I shocked her with the following statement, "Most of our beginning graduate students [even those in Applied Mathematics] are entering with the basic knowledge and language of Category Theory. These days one might find Chemists, Computer Scientists, Engineers, Linguists and Physicists expressing concepts and asking questions in the language of Category Theory because it slices across the artificial boundaries dividing algebra, arithmetic, calculus, geometry, logic, and topology. If you have students you wish to introduce to the subject, I suggest a delightfully elementary book called Conceptual *Mathematics* by F. William Lawvere and Stephen H. Schanuel [Cambridge University Press 1997, $35 on Amazon.com) (ISBN: 0521478170 | ISBN-13:9780521478175)].

From the introduction: "Our goal in this book is to explore the consequences of a new and fundamental insight about the nature of mathematics which has led to better methods for understanding and usual mathematical concepts. While the insight and methods are simple ... they will require some effort to master, but you will be rewarded with a clarity of understanding that will be helpful in unraveling the mathematical aspect of any subject matter."

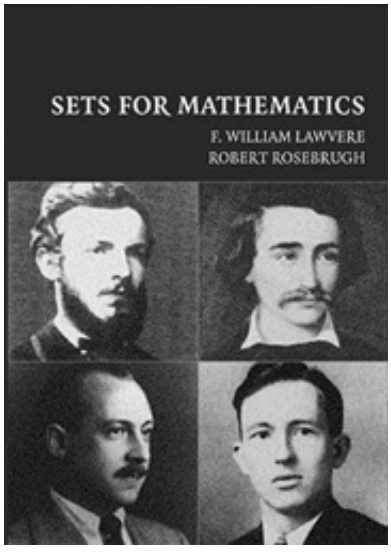
Who are the authors? Lawvere is one of the greatest visionaries of mathematics in the last half of the twentieth century. He characteristically digs down beneath the foundations of a concept in order to simplify its understanding. Though Schanuel has published research in diverse areas of Algebra, Topology, and Number Theory, he is known as a great teacher. The book is an edited transcript of a course taught by Lawvere and Schanuel to American undergraduate math students. The book was actually chosen as one of the items in the Library of Science Book Club. The concepts of Category Theory in *Conceptual Mathematics* are presented in the same way Lawvere and Schanuel implemented it, in a real classroom setting, addressing common questions of students (yes these are real people) at crucial points in the book.

The book comes with thirty-three Sessions instead of Chapters. Some Sessions can be understood in a single class or hour. Others may take longer. There are also numerous Examples, Problems, and five Tests of the student's understanding.

The title of Session 1 is "Galileo and the flight of a bird" and motivates the notion *map*. The sixth part of Session 5 is called "Stacking in a Chinese restaurant" and helps motivate *sections* and *retractions*. Session 10 motivates the *Brouwer Fixed Point Theorem*. Less you think this is all Abstract Mathematical nonsense, Session 15 is called "Objectification of properties in dynamical systems." The title of Session 20 is "Points of an object."

I have recommended Lawvere and Schanuel to motivated high school students. I certainly suggest this clearly written "Conceptual Mathematics" for undergraduates. I even suggest it for the mathematician who needs a refresher on modern concepts.

Sets for Mathematics, a review by Scott W. Williams



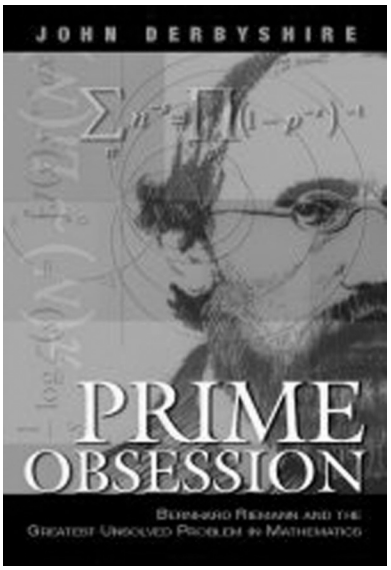
For the first half of my nearly four decades as a mathematician, it was clear to me that the language of mathematics was Set Theory and this had been the language for at least seventy years. However, now it is clear there has been an upgrade. The language of mathematics is now Category Theory. A natural question arises, how can someone steeped in the old language easily convert to the other. One answer has been started with the very elementary *Conceptual Mathematics* by Lawvere and Schanuel; however, a more advanced and complete tool for this task is *Sets for Mathematics* by F. William Lawvere and Robert Rosebrugh [Cambridge University Press, 2003. Paperback, 250 pp., $35, ISBN 0521010608].

It was most surprising for this mathematician to realize that the definition of products and sums of topological spaces are no accident, but follow from the laws of sums (Chapter 3) and products (Chapter 4) in Category Theory. Further, I was surprised to learn if one follows these laws that products of metric spaces are not what I thought.

In addition, *Sets for Mathematics* gives a transparent understanding to the Axiom of Choice (Chapter 4). The Chapters on the Uses of Exponentials (Chapter 7), and on Variable Sets (Chapter 10) are enlightening..

For an advanced undergraduate student who intends to study algebra, analysis, combinatorics, and geometry, *Sets for Mathematics* is a must.

Prime Obsession, a book review by Scott W. Williams



It should be true that every mathematician should be familiar with the greatest unsolved problem of mathematics, the Riemann Hypothesis. Perhaps the Clay Institute's one million dollar offer could have raised an increased interest. However, until recently I wasn't "familiar" with the problem. I knew no history and had not "played" with the problem. If a bright high school student had asked me about the problem, I would have been embarrassed with my response, for I only knew about the "zeroes of the zeta function" statement. Recently I have felt like more of a mathematician. The change in my status came with the reading of a truly remarkable book, *Prime Obsession* by John Derbyshire [paperback $18.45 can be purchased in Barnes & Noble, Borders, or at Amazon.com].

What is remarkable about Derbyshire's book is its simplicity. The reader who finds history boring can read just the odd numbered chapters of mathematical exposition. Yet that might cause one to miss in Chapter six how Analytic Number Theory got its start. Besides, half of the mathematical exposition in the odd chapters is known to every mathematician. Put there for the nonprofessional is the development of logs, complex numbers, integration, and other background material. The even numbered chapters are full of history and biography, so you can learn how Gauss came to Göttingen, Riemann's career, tidbits of Littlewood and Hardy.

Two of Bernhard Riemann's (1826-1866) only nine published articles were major mathematical blockbusters. The first delivered as a lecture qualified him for a tenured position at Göttingen University's world-class mathematics department. His second article, also delivered as a lecture, was called "On the Number of Prime Numbers Less Than a Given Quantity." Here he also introduced the Riemann zeta function. The lecture inducted him into the Berlin Academy of Science at the mere age of 32 and introduced the famous Riemann Hypothesis also known in the 20th century as Hilbert's Eighth problem.

The story of Riemann's problem begins well before Riemann, even before Gauss with $\pi(n)$, the number of primes up to the integer n, and Chapter three begins with all the 168 primes less than 1000. The story continues through the Prime Number Theorem $\pi(x) \sim x/\log x$, and soon the log integral of x is introduced. After infinite series are quickly developed, the Riemann zeta function $\zeta(s) = \sum n^{-s}$ is defined so the Hypothesis can be stated as "All nontrivial zeroes of the zeta function have real part 1/2." Yet Derbyshire does more than state the problem, he works out simple examples, describes the "trivial zeroes" and more.

Many of the greatest mathematicians are involved with the Riemann's Hypothesis or its back story. Here are some of G. H. Hardy's 1920 New-Year wishes: (1) prove the Riemann Hypothesis, (3) find an argument for the nonexistence of God which shall convince the general public, (5) be proclaimed the first president of the USSR, of Great Britain, and of Germany.

Others discussed in the book are Emil Artin, Pafnuty Chebyshev, Alain Connes, Harald Cramér, Richard Dedekind, Pierre Deigne, Lejeune Dirichlet, Leonhard Euler, Carl Friedrich Gauss, Jorgen Gram, Jacques Hadamard, G.H. Hardy, David Hilbert, Edmund Landau, Ernst Lindelöf, J. E. Littlewood, Hugh Montgomery, George Polya, Charles Poussin, Atle Selberg, Carl Siegel, Helge Von Koch, André Weil. Even physicist Freeman Dyson and computer scientist Alan Turing got involved. This book shows the connections of them all.

Although I believe it serves a necessary function, I have never enjoyed history or biography. However, this book is absolutely engrossing and one which ought to be read by anyone calling themselves a mathematician. I read it during the final weeks of my hospital stay and each of those twenty-one days two friends visited me for several hours and we discussed what I had read.

The Strange Case of Gabriel Oyibo Scott Williams

In the year 2002 I received a phone call asking me to verify whether an African, Gabriel Audu Oyibo, had won the Nobel Peace Prize in Mathematics. After informing the caller that “Peace Prize” usually means “Peace” and not “Mathematics” and the Nobel Prize is not awarded in Mathematics, I realized that I needed to find something about Oyibo for my web site Mathematicians of the African Diaspora.

I did a google search for “Gabriel Oyibo math.” To my surprise, the first site which turned up was my own web page on Oyibo. It seems that several years earlier I had learned of Oyibo’s 1981 Ph.D. in Applied Mathematics (Aeronautics) from Rennselaer Polytechnic Institute. The second site which turned up was Oyibo’s own site where he claimed to have been nominated for the Nobel Prize because he had solved Einstein’s Unified Field Theory problem.

I have met a few Nobel Prize recipients for science, literature, and peace, and like any good scientist, I annually follow the announcements. Yet I have never before heard of someone being “nominated” for a Nobel prize, indeed that seemed to be a rather dubious pronouncement. Thus, I began to research the source of this claim.

Sometime after graduate school, Dr. Oyibo was on the faculty of Brooklyn Polytechnic Institute, but he had left there to form his own Institute OFAPPIT while teaching part time at Bridgeport University. Oyibo claims he has 104 publications. I have searched Mathematical Reviews and Zentralblatt and located just ten publications of Oyibo which appeared between 1983 and 2000. If they have published in recognized journals, their reviews would appear in Mathematical Reviews and/or Zentralblatt. But I only found ten.

I believe the work for which this supposed Nobel nomination was made, was published in the middle and late 1990s. A precursory examination of some of the ten papers raised a red flag. Oyibo had committed the scientist’s faux pas more than once by publishing one article in two or more different journals. The only previous cases I knew of this seemed to stem from the author’s wish to increase the size of his bibliography without work warranting the increase.

Duplicate publications, no position at a major university, Nobel nomination - all this was too much so I did three things.

1. As a theoretical mathematician with little pretense to knowledge of Applied subjects, I needed to ask experts about Oyibo’s work. Thus I wrote five well-established (if not famous) physicists and four well-established (if not famous) applied mathematicians asking whether they knew of Oyibo’s work, and if they could give me their opinion. Six of this group of nine were of the African Diaspora. All of these people attend many national and international conferences, and are therefore clued into the latest discoveries in their areas. I did not mention anything about a Nobel prize; however, I knew that if Oyibo was highly regarded, some of these nine would be aware of it, if no other reason than Oyibo is Black..

2. I wrote an applied mathematician at Rennselaer Polytechnic Institute asking whether his department knew their graduate Gabriel Oyibo had been nominated for the Nobel prize.

3. I put my discoveries and questions on my Oyibo web page hoping to elicit more data.

For 1: The responses of the scientists I wrote were similar. None had heard of a credible solution to the Unified Field Theory problem, or of Oyibo or that someone Black was “nominated for a Nobel Prize in Physics.” Six of the nine scientists claimed they had no time for a hoax; however, three said they would read some of his papers to see what was there. All three later said there was no justification for his claim to have solved Einstein’s problem. To paraphrase each of these three: “If Oyibo has done Nobel worthy work, then either it would be praised by credible established sources in the international community, or somebody would steal his work. As neither of these outcomes have occurred, one can conclude the claims are a hoax.”
Although the nine wanted to remain anonymous, I found a tenth to speak out. During the June 2005 a Conference for African Americans in the Mathematical Scientists, I chanced to speak with the noted African American physicist, Sylvester James Gates, about Oyibo. He concurred with my three aforementioned responders that there was no justification for Oyibo’s claim to have solved Einstein’s problem.

For 2: The Rennselaer Polytechnic Institute mathematician said he never heard of Oyibo, and knew of Oyibo’s Unified Field Theory work.

For 3: The first few people who wrote me did not offer proof that I erred, instead they attacked me and my credentials. I told them I was not prejudiced against Nigerians, and I named a half dozen renowned Nigerian mathematicians whose credits are not questionable. Still I was called various unsavory Nigerian names (which my Nigerian stepson translated for me). I was called an agent of the CIA (why the CIA?). I was said to

be jealous of Oyibo's success (to which I responded I am at the end of a successful career for which I have been amply rewarded. I have no need for jealousy).

In May 2004, I was told something by a onetime Brooklyn Poly colleague of Oyibo a few years ago: He said that after Brooklyn Polytechnic Institute said they would not tenure Gabriel Oyibo, he called the institution racist and sued the school. In the end the suit was dropped when a deal was made - the school would nominate Oyibo for a Nobel Prize in Physics. This person asked to remain anonymous. My attempts to know more about the ending of the lawsuit have been fruitless.

Oyibo has scientist supporters and detractors in Nigeria and I have heard from both types. Most of Oyibo's supporters in this country are nonscientists whose wish for a mythical Black scientific giant ignores very real accomplishments by living persons. Thus, you will see he has lectured various high school groups and organizations unable to verify what they hear. Still, I am waiting for the heralded lecture before the mathematicians and physicists at MIT or the Courant or Princeton.

For more details on Oyibo, a picture, and my exchanges see http://www.math.buffalo.edu/mad/PEEPS/oyibo_gabriela.html

NAM'S Regional Conference

During The Spring of 2005, NAM held its Regional Conference on Research & Teaching at the University of District Columbia. The conference was successful, and the Albert Turner Bharucha-Reid Lecture was given by Scott Williams. Pictured are some of the participants.

Modern Mathematics at Morehouse and Spelman: An Introduction to 2006-07 Programs at MSRI

Morehouse College and Spelman College (Atlanta, GA) November 5-6, 2005

Morehouse College and Spelman College, together with the Mathematical Sciences Research Institute, will conduct a weekend workshop on the Morehouse and Spelman College campuses on modern developments in mathematics that will be the focus of upcoming research programs and summer graduate programs at MSRI, supplemented by additional special invited talks.

All presentations will be expository, intended for faculty who may not be closely working in these areas, as well as for graduate students who have had the usual general preparation for advanced study in the early part of a Ph.D. program but who may not yet have specialized. Talks on MSRI programs will include descriptions of different ways to be involved with these programs. The speakers, as listed below, will also be available for one-on-one discussions with those who are interested.

Further information and links to the workshop web page are available at: http://www.msri.org

Project NExT/Young Mathematician's Network Poster Session

Project NExT and the Young Mathematician's Network invite submissions of abstracts for a poster session to be held on Friday, January 13, 2006 from 2:00 to 4:00 p.m. at the Joint Mathematics Meetings in San Antonio. 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 hookup. 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:

Prof. Ken Ross; Department of Mathematics; University of Oregon; Eugene, OR 97403-1222. e-mail: ross@math.uoregon.edu
and
Prof. Kevin Charlwood; Dept. of Math & Statistics; Morgan Hall; Washburn University; Topeka, KS 66621. e-mail: kevin.charlwood@washburn.edu

Our poster sessions the past nine years were a great success. Visitors to the session each year were numerous, and included 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 6, 2005. Preference will be given to those who did not earn a Ph.D. prior to 2000; 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/2005/Posters/ before the Joint Meetings

Editor's Apology

Once again the editor must apologize for failing to publish the Summer issue. Again the cause was a lengthy illness. At least I got to read a lot of mathematics books. I am better now and no longer have to read.

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**

Capital One Senior Statistician

Richmond, VA and Washington, DC metro area

A world leader in the financial services industry, Capital One (www.capitalone.com) seeks leaders for our statistical practices. Possible responsibilities include:
Statistical Practice Development: Develop understanding of Capital One's broad statistical needs in order to design, develop, and deploy systematic improvements across the organization.
Project Delivery: Identify changes required in Capital One practices, define project scope, execute and evaluate projects, manage individuals effectively, champion new ideas, and influence senior leaders.
Team Leadership: Lead a team of statisticians in creating new models, tracking established models, and applying statistical thinking to new business domains.
Job Qualifications:

Ph.D. in statistics, economics, or biostatistics with 5+ years of applied experience

Accomplished user of classic statistical tools (for example, linear models, logistic regression, hypothesis testing, sampling)

SAS programming, solid on data step and several of the advanced statistical procedures, familiar with macros

Superior communications skills

Broad knowledge of the standard canon
Ability to create and lead complex projects

Ideal candidates for this position will also have extensive experience in leading change in complex business environments and excellent teaching skills.

An equal opportunity employer, we offer excellent pay, benefits, and opportunities for professional advancement. **Contact**: Craig Dye, 804-284-5324, craig.dye@capitalone.com

MSRI

The Mathematical Sciences Research Institute in Berkeley, California solicits applications for membership in its 2006-07 programs: Geometric Evolution Equations (Academic Year); Computational Applications of Algebraic Topology (Fall 2006); Dynamical Systems (Spring 2007)

Apply on-line for Research Professorships, Post doctoral Fellowships, or General Memberships.
Further information http://www.msri.org. On-line Application http://www.mathjobs.org:

University of North Carolina at Greensboro

Applications are invited for two tenure-track assistant/associate professorships in computational mathematics, beginning Fall 2006. For one of these, preference will be given to computational number theory /computational algebra/ computational combinatorics. Applicants must have or anticipate a Ph.D. in mathematics by August 2006. Duties include teaching, research, and university service. The department offers BS, BA, MA degrees in mathematics, and the BS, MS degrees in computer science. The application should include an AMS cover sheet, curriculum vitae, description of current research, statement of teaching philosophy, and three letters of recommendation, including one letter addressing the candidate's teaching abilities. Send to: Chair, Mathematics Search Committee, Department of Mathematical Sciences, University of North Carolina at Greensboro, Greensboro NC 27402. Applications received by January 31, 2006 will be guaranteed full consideration. The University of North Carolina at Greensboro is an affirmative action, equal opportunity employer. EEO/AA We cannot process email applications. http://www.uncg.edu/~matdept/jobs.html

University of Dayton

Applications are invited for a tenure track position in the Department of Mathematics at the assistant professor level starting in August 2006. The position focuses on **applied discrete mathematics**.

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, and complement the department's core group of discrete mathematicians. Preference is given to candidates who develop research and curricular collaborations with faculty members from other disciplines.

The selection process begins December 12, 2005. To receive full consideration, all materials must be received by January 19, 2006. 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 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.

Monmouth University

Two tenure-track mathematics/statistics positions: The Mathematics Department of Monmouth University is seeking two full-time faculty members for tenure track appointments which start August 25, 2006. Both positions require a Ph.D. in mathematics, applied mathematics, or statistics. For one of the positions, a Ph.D. in mathematics education with at least a master's degree in mathematics is equally acceptable. Dedicated, effective teaching is the primary responsibility; the 9-credit per semester teaching load includes both upper and lower level courses. There are expectations of continued scholarly activity consistent with the teaching load, as well as university service.

One position requires a Ph.D. in statistics (or equivalent recent statistical experience and a Ph.D. in mathematics or applied mathematics); some consulting experience is strongly preferred. This person will be expected to lead the department's discussion of our offerings in statistics, and assist in developing pre-actuarial offerings. As most of our statistics offerings meet needs of students in "client" disciplines, it is essential that the candidate possess good communication skills, not only with mathematicians, but also with students and faculty in other disciplines. Teaching responsibilities include both statistics and mathematics courses.

Mathematicians working in any field of research within the mathematical sciences are invited to apply for the second position. We are particularly interested in hiring faculty members with active scholarly interests in statistics, research in undergraduate mathematics education, developmental mathematics, or the mathematical education of teachers.

The Mathematics Department has 13 full-time faculty members and approximately 14 part-time instructors. The Department offers baccalaureate programs in mathematics and mathematics education. The Department has a dedicated computer teaching laboratory, and administers the Mathematics Skills Center, which provides peer tutoring. More information about the department can be found at http://www.monmouth.edu/academics/deptlinks/mathematics.asp. Monmouth University, located in Monmouth County along the Central Jersey shore approximately one hour south of New York City and 1.5 hours northeast of Philadelphia, designated a teaching university by the State of New Jersey, has 4500 undergraduates and 1800 graduate students. Our location puts us near a wide variety of industries, including telecommunications, financial, educational testing, and computer software. The University is committed to creating a more diverse environment. If you have questions about the positions or the department, 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 secretary, 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 consulting experience, to: Frank Lutz, Dean School of Science, Technology and Engineering Monmouth University West Long Branch, NJ 07764-1898.

Applications and supporting materials must be postmarked on or before December 1, 2005 to assure full consideration. The University is committed to creating a more diverse environment.

Pomona College

Tenure-track position in any area of Analysis. Submit applications on-line at MathJobs.org or to Shahriar Shahriari, Chair, Mathematics Department, Pomona College, 610 North College Avenue, Claremont, CA 91711-6348.

Application includes a curriculum vitae, graduate transcripts, at least three letters of recommendation (at least one should evaluate teaching), a description, for the nonspecialist, of research accomplishments and plans, and a statement of teaching philosophy. Will fully consider applications completed by December 1, 2005. Pomona College is an equal opportunity employer and especially invites applications from women and members of under represented groups.

University of Virginia

The Department of Mathematics invites applications for tenure track or tenured professorships, beginning in the fall of 2006; however, the position will remain open until filled. Special consideration will be given to applicants working in probability-related or geometry-related fields. 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.

To apply, please send 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, to:

Hiring Committee, Department of Mathematics, University of Virginia, Kerchof Hall, PO Box 400137, Charlottesville, VA 22904-4137

Completed applications and letters of recommendation should be received by January 2, 2006 for full consideration; however, the position will remain open until filled. Applicants are also required to complete the electronic information form located on the Department's homepage (http://www.math.virginia.edu). Click on Faculty Hiring and follow instructions.

Wake Forest University

Applications are invited for a tenure track position in mathematics at the assistant professor level beginning August 2006. We seek one person whose research is in Topology or Geometry. Duties include teaching at the undergraduate and graduate levels and continuing research. A Ph.D. in mathematics or equivalent is required. The department has 18 members and offers a B.A., B.S., and M.A. in mathematics and a B.S. in each of mathematical business and mathematical economics. Send letter of application and resume to Stephen Robinson, Department of Mathematics, Wake Forest University, P.O. Box 7388, Winston-Salem, NC 27109-7388. AA/EO employer.

Dartmouth College
John Wesley Young Research Instructorship

The John Wesley Young Instructorship is a postdoctoral, two-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 $4,500.00 and is not renewable. Salary includes two-month research stipend for Instructors in residence during two of the three summer months in 2007 and 2008. To be eligible for a 2006-2008 Instructorship, candidate must be able to complete all requirements for the Ph.D. degree before September 2006. Applications may be obtained at 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 Donna Black, Department of Mathematics, Dartmouth College, 6188 Bradley 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 3, 2006 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 2006-2007 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 research-related 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/. 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 Donna Black, Recruiting Secretary, Department of Mathematics, Dartmouth College, 6188 Bradley Hall, Hanover, New Hampshire 03755-3551. Applications received by December 15, 2005 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 David Webb, Recruiting Chair.

University at Buffalo, SUNY
Department of Mathematics

The Department of Mathematics anticipates the appointment of several tenure-track assistant professors, effective August, 2006. Salary will be competitive. We seek candidates from all fields, particularly Algebra, Applied Mathematics, and Geometry/Topology. 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, SUNY; Mathematics Building 244; Buffalo, NY 14260-2900

The deadline for applications is November 7, 2005. 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.

Northwestern University
Boas Assistant Professor

Applications are solicited for up to three Ralph Boas assistant professorships of three years each starting September 2006. These are nontenure 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 MathJobs.org: 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, 2004. 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 60208-2730

NORTHWESTERN UNIVERSITY
Tenure Track

Applications are invited for an anticipated tenure-track position starting September 2006. 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. Applications may also be made electronically at MathJobs.org: www.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 2005.
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 60208-2730

Northwestern University
Lecturer

Applications are invited for a new full-time non-tenure-track Lectureship in Mathematics beginning in September 2006 for an initial term of two years. The primary responsibilities will be concentrated in the calculus program, including teaching six courses over the three quarters of the regular academic year, advising and placement, and coordinating some multi-section courses; other duties may be assigned by the Chair. Candidates must have a Ph.D. in mathematics and a demonstrated record of excellent teaching.

Applications should be made electronically at www.mathjobs.org and should include (1) the American Mathematics Society's Application Cover Sheet for Academic Employment, (2) a curriculum vitae, (3) a teaching portfolio, and (4) at least three letters of recommendation, all of which address the candidate's teaching qualifications. Inquiries may be sent to lecturer@math.northwestern.edu.

While applications are welcome at any time, the review process will begin on November 15, 2005. Women and members of underrepresented minority groups are urged to apply. AA/EOE Northwestern University; Department of Mathematics; 2033 Sheridan Road; Evanston, Illinois 60208-2730

Purdue University

Applications are invited for tenure-track Assistant Professor or three-year Research Assistant Professor appointments beginning August 2006. Ph.D. by August 14, 2006, 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.

Several positions will be available for terms ranging from one semester to two years beginning August 2006. 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 15, 2005 and continue until available positions are filled. Offers for tenured and tenure-track positions may be made at any time; some offers for RAP positions will be made before the end of January 2006.

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.

Indiana University -Purdue University, Indianapolis

Tenure-Track Positions in Mathematics, Mathematics Education, and Statistics/Biostatistics

The IUPUI Department of Mathematical Sciences announces one or more tenure-track positions, pending final budgetary approval, in mathematics (pure or applied), mathematics education and in statistics/biostatistics, beginning 8/2006. A Ph.D. and a demonstrated potential for excellence in research and in teaching are required. Rank and salary will be commensurate with qualifications. For more detailed information about each position, as well as minimum qualifications, see http://www.math.iupui.edu/news/employment/, or send letter of interest, AMS form, CV, statements on research and on teaching, and four letters of recommendation (including one on teaching) to the Search & Screen Committee, Department of Mathematical Sciences, IUPUI, 402 N. Blackford Street, LD270, Indianapolis, IN 46202-3216. Screening will begin on December 15, 2005, and will continue until the positions are filled. IUPUI is an EEO/AA Employer, M/F/D.

University of Illinois at Chicago,

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, 2006, 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. No e-mail applications will be accepted. To ensure full consideration, materials must be received by November 30, 2005. 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.

Research Assistant Professorships. These are non-tenure track positions, normally renewable annually to a maximum of three years. These positions carry 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 2005-2006 for these positions is $49,000, the salary for AY 2006-2007 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. No e-mail applications will be accepted. To ensure full consideration, materials must be received by November 30, 2005. 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.

American University

Mathematics or Statistics

The Department of Mathematics and Statistics in the College of Arts and Sciences at American University has an opening for a tenure track assistant professor in Statistics or Mathematics for Fall 2006.

Qualifications: earned doctorate in Mathematics or in Statistics by Fall 2006, as well as evidence of effective teaching and either a record of or the potential for continuing productive scholarship. Responsibilities: teaching undergraduate and graduate level mathematics or statistics courses; conducting research; advising and mentoring students, with particular sensitivity to women and minority students; institutional service.

Application review will begin immediately and continue until the position is filled. Submit letter of application and vitae to Search Committee, Department of Mathematics and Statistics, American University, 4400 Massachusetts Avenue NW, Washington, DC 20016-8050. Have official transcripts and three letters of reference sent directly to the department. At least one letter should specifically mention teaching experience.

All applicants are encouraged to review full application instructions, available at www.mathstat.american.edu/positions, or from the department at (202) 885-3124, or by email at mathstat@american.edu. American University is an Equal Employment Opportunity / Affirmative Action employer, committed to a diverse faculty, staff, and student body. Women and minority candidates are strongly encouraged to apply.

NAM Calendar

You can find NAM's *On-line 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.

National Association of Mathematics Membership Form

(For New Applications and Annual Membership Renewal)
Membership Calendar Year: January 1 - December 31

Name _____

Address _____

_____

Institution/Employer _____

Telephone: Home ( ) _____ Office ( ) _____

Fax ( ) _____ E-mail Address _____

Select Approipriate Membership Type

☐ Student : $15 ☐ Individual : $25 ☐ Contributing : $50 ☐ Sustaining : $75

☐ Instutional : $100 ☐ Life : $400

PLEASE RETURN THIS COMPLETED FROM AND MEMBERSHIP DUES TO :
Dr. Roselyn E. Williams, Secretary-Treasurer
National Association of Mathematicians;
P.O. Box 5766
Tallahassee, Florida 32314-5766
(850)412-5236 (office)
email: Roselyn.Williams@famu.edu
Web page: (new) http://www.math.buffalo.edu/mad/NAM/NAM-index.html

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 _____ Institution _____
M.S. or M.A.: Area _____ Institution _____
Ph.D. or Ed.D.:Area _____ Institution _____
Other: Area _____ Institution _____

Desired Participation in NAM

☐ Institutional Representative (for NAM) Area or State Representative _____
☐ Committee Membership (specify interest): _____
☐ Need additional information about the organizational structure of NAM

Ethnicity:
African American ☐ Hispanic American ☐ White ☐ Other ☐ _____

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Puerto Rico
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Any state not in B or C

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FALL 2005