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#### IN THE NEWS

New mathematics journal: the African journal of Mathematics. Edited by Dr. Joshua Leslie, Chair of the Department of Mathematics at Howard University. More inside.

The Eighth Conference for African American Researchers in the Mathematical Sciences is to be held June 18-21, 2002 at Princeton University. Events will include twelve invited research presentations, three tutorials and a graduate poster session. For more details, contact Prof. William A. Massey at wmassey@princeton.edu or go to the website http://www.princeton.edu/~wmassey/CAARMS8.

African American Mathematician passes. Lloyd Kenneth Williams (1925-2001); BA Mathematics University of California at Berkeley (1948); MA Mathematics University of California at Berkeley (1949), Ph.D. Mathematics (1956) at the University of California at Berkeley; Professor Emeritus Texas Southern University. See the Mathematicians of the African Diaspora web site

World class physicist, researcher, inventor, educator, and founder of the National Society for Black Physicists passes. Harry Morrison (1932-2002); B.A. Physics from Catholic University (1955); Ph.D. Mathematical Physics Catholic University (1960); Professor Emeritus University of California at Berkeley. See the Physics section of Mathematicians of the African Diaspora.

Incorrect quotes in a articles in the Journal for Blacks in Higher Education cause distress to several mathematicians. See article Math in the JBHE.

The Mathematicians of the African Diaspora reached one million visitors. Its main web site address changes to http://www.math.buffalo.edu/mad

The National Association of mathematicians web site address changes to http://www.math.buffalo.edu/mad/NAM

#### **CALENDAR**

NAM's Online Conference Calendar at <a href="http://www.caam.rice.edu/~nated/orgs/nam/">http://www.caam.rice.edu/~nated/orgs/nam/</a> programs/conferences.html Look there for the most recent links to relevant conferences announcements.

- \*March 2002 NAM Regional Conference at Bowie State University.
- \*June 18-21, 2002 CAARMS 8, Princeton, New Jersey
- \*April 22-24, 2002 NCTM Annual Meeting Las Vegas, NV
- \*July 8-12, 2002 SIAM 50th Anniversary & Annual Meeting (Diversity Day) Philadelphia Marriott Hotel, Philadelphia, PA
- \*August 1-3, 2002 MAA MathFest (NAM Blackwell Lecture) Burlington, Vermont
- \*August 20-28, 2002 International Congress of Mathematicians Beijing International Convention Center, Beijing, P. R. China
- \*October, 2002 NAM Undergraduate MathFest XII Southern University, New Orleans, Louisiana
- \*November 14-17, 2002 AMATYC Annual Conference, Phoenix, Arizona
- \*January 15-18, 2003 Joint Mathematics Meetings (NAM Events) Baltimore Convention Center, Baltimore, Maryland

#### **A Nobel Urban Legend**

by Scott W. Williams

Just two weeks ago I heard a graduate student say to a colleague, "Mathematicians can't get a Nobel prize,... because a prominent Swedish mathematician ran away with Nobel's wife." I heard the same legend nearly forty years ago. Sometimes the legend is embellished with naming the mathematician, usually Gosta Mittag-Leffler (M-L), the founder of Acta Mathematica. However, it is false.

- 1. Explosives magnate Nobel never married.
- 2. The supposed mathematician, Further, there is no evidence that M-L had any contact with Nobel's mistress Sophie Hess and more than diplomatic contact with Alfred Nobel (in order to raise funds for the Stockholm University). Though there was some estrangement between the two men, there is no evidence of animosity between Nobel and M-L for whatever reason.
- 3. The leading mathematicians Weierstrass and Poincare were already honored by Sweden.
- 4. A mathematician has been awarded the Nobel prize, though not for his mathematics. See the article, "A Beautiful Painful Story" in this issue.

references: "The Mathematics of Sonya Kovalevskaya" by Roger Cooke (Springer-Verlag, 1984.)

#### **A Beautiful Painful Story**

a book review by Scott W. Williams

This is not a review of the film, instead a review of the book, which the film inspired me to read. The book is New York Times Science writer Sylvia Nasar's, *A Beautiful Mind*, subtitled: A Biography of Mathematician John Forbes Nash, Jr. Let me also suggest a book of first rate mathematics, *The Essential John Nash* edited by Harold W. Kuhn and Sylvia Nasar.

Nash, wanted to win the Fields Medal, mathematics most coveted prize. His mathematics was certainly of Fields Medal class; however, Forbes did not receive a Fields Medal, nor did he receive any of the top awards in mathematics. Instead, for a minor work which revolutionized Economics, John Forbes Nash, Jr. was awarded the Nobel prize in 1994.

In 1995, John Milnor (1962 Field Medal) said of Nash, "To some, the brief paper written at age 21, for which he won the Nobel prize in economics, may seem the least of his achievements [p. 398]. The brief paper was his Ph.D. thesis, *Non-Cooperative Games* (Princeton University Press 1950), whose results were first published by the National Academy of Sciences as *Equilibrium Points in N-Person Games*, and, later as *Non-Cooperative Games* in the Annals of Mathematics (1951), 285-96. From this paper comes the concepts known as <u>Nash equilibrium</u> and <u>Nash bargaining</u>, which are central not only economics but nuclear strategy and contract talks in major league sports.

In 1997, world class geometer Mikhail Gromov said about John Forbes Nash, Jr., "the most remarkable mathematician of the second half of the century." John Conway says Nash's ideas come from the kind of unanticipated and deep intuition that pushes science in new directions. By his late twenties he had the respect of the greatest and most famous mathematicians of his day. By his late thirties he had disappeared to mathematical world. By his late forties very few individuals realized the person who had singularly revolutionized Game Theory in Economics was the same person who had solved one hundred year old problems of Riemann.

One of the reasons I decided to read the book partially because, other than Nash and his wife, the people in the film version were amalgamations I was unable to recognize, and I wanted to know the real figures. So, in the book, one learns about his interactions with the father of modern computer scientist Marvin Minsky, with

economist Lloyd Shapely (the son of the great Astronomer), Historically Black Bluefield College (where Nash took some classes), and his interaction with numerous mathematicians, Paul Cohen, Albert Einstein, Alexandre Grothendieck, Harold Kuhn, Solomon Lefschetz, John Milnor, Cathleen Morawitz, Jürgen Moser, Donald Newman, John von Neuman, Louis Nirenberg, and Donald Spencer to mention a few. In the extensive footnotes (from 20 to 50 per chapter), even more mathematicians appear, David Blackwell, Saunders MacLane, and John Isbell, for example.

This an extremely well-documented book for the lay person, and within it, the world of a working mathematician is revealed. A lay discussion of his mathematics is presented chronologically in the context of his life.

Nash's youth and heritage is documented. One reads of his invention of a game later marketed as Hex by Parker Brothers. One learns truths behind rumors of affairs with several subsequent Fields medal winners. One reads about both of sons he named John Nash, the first by a woman he never married.

Central to the last half of the book is Nash's descent in to schizophrenia (a place currently occupied by his youngest son), and his thirty year climb back up from that hell. Here one reads of Nash's time at the institution where Jazz musician Charlie Parker and the poet Robert Lowell were also interred. One learns details of Nash's resignation from a once highly sought tenured position at MIT, and his attempts to resign his American citizenship. Contrary to the film, one learns that to gain access to psychological care, and to avoid bankrupting her, Nash divorced his wife. From the book:

It was late on a weekday afternoon in the spring of 1959, and, though it was only May, uncomfortably warm. Nash was slumped in an armchair in one corner of the hospital lounge, carelessly dressed in a nylon shirt that hung limply over his unbelted trousers. His powerful frame was slack as a rag doll's, his finely molded features expressionless. He had been staring dully at a spot immediately in front of the left foot of Harvard professor George Mackey, hardly moving except to brush his long dark hair away from his forehead in a fitful, repetitive motion. His visitor sat upright, oppressed by the silence, acutely conscious that the doors to the room were locked. Mackey finally could contain himself no longer. His voice was slightly querulous, but he strained to be gentle. "How could you," began Mackey, "how could you, a mathematician, a man devoted to reason and logical proof...how could you believe that extraterrestrials are sending you messages? How could you believe that you are being recruited by aliens from outer space to save the world? How could you...?"

Nash looked up at last and fixed Mackey with an unblinking stare as cool and dispassionate as that of any bird or snake. "Because," Nash said slowly in his soft, reasonable southern drawl, as if talking to himself, "the ideas I had about supernatural beings came to me the same way that my mathematical ideas did. So I took them seriously."

The film *A Beautiful Mind* is a beautiful story and well worth the Academy Awards for which it is presently nominated. The New York Times review which many non-mathematicians quote for its comments for errors, was simply wrong. My non-mathematician wife did not see the film, but she found the book more compelling than did I. I think the book *A Beautiful Mind* is Fields Medal class.

Scott Williams, February 20, 2002

#### Blacks in Latin America and the Caribbean

For selected bibliographic sources on Blacks in Latin America and the Caribbean, see: http://www.lib.utexas.edu/benson/bibnot/bn-54-1.html

#### **The President's Perspective**

I have not submitted a Perspective for the past two newsletters because of a heavy schedule. I am also happy to see that the newsletter has been quite full without my little contributions. However, I felt that the membership would find this offering interesting.

Did you know that an imaginary number raised to the power of an imaginary number can be a real number? I.e.

To see that this is the case, consider the Taylor Series expansion of  $e^x$ .

$$e^{x} = 1 + x + x^{2}/2! + x^{3}/3! + x^{4}/4! + \dots$$

Now if we let  $x = i\pi$ , we can write:  $e^{i\pi} = 1 + i\pi + (i\pi)^2/2! + (i\pi)^3/3! + (i\pi)^4/4! + \dots$ 

Since  $l^2 = -1$ , we obtain the following series:

$$e^{i\pi} = 1 + i\pi - \pi^2/2! - i\pi^3/3! + \pi^4/4! + i\pi^5/5! + \dots$$

This series can be divided into to other convenient series:

(!)  $1 - \pi^2/2! + \pi^4/4! - \pi^6/6! + \dots$  Which is equal to Cos  $\pi$ 

(2)  $i\pi - i\pi^3/3! + i\pi^5/5! - i\pi^7/7! + \dots$  Which is equal to Sin  $\pi$ 

We can therefore, write the following equation:

 $e^{i\pi} = \cos \pi + \sin \pi$ . But,  $\cos \pi = -1$  and  $\sin \pi = 0$ . Therefore, we get the famous equation:

$$e^{i\pi} = -1$$

Now the square root of  $e^{\pi}$  is equal to the square root of -1, which is the definition of the imaginary unit i. Another way of writing this is:

$$e^{i\pi/2} = i$$

So we can write / as  $(e^{i\pi/2})^i = e^{i\pi/2} = .20788$ . This is certainly a real number.

John W. Alexander, Jr. (Jack) President

#### NSF-CBMS Regional Research Conference on Nonlinear Wave Propagation May 15-19 at North Carolina A&T University

May 15-19, 2002. The Mathematical Methods in Nonlinear Wave Propagation NSF-CBMS conference will revolve around ten one-hour lectures delivered by Professor J. Kenneth Shaw of Virginia Tech (Departments of Mathematics and Electrical & Communications Engineering)

In addition to the principal lectures, there shall be invited lectures in nonlinear mathematics and fiber optics by Tuncay Aktosun (Mississippi State University - Mathematics), Sin-Chung Chang\* (NASA – Glenn, CFD), Martin Klaus (Virginia Tech - Mathematics), Ronald Mickens (Clark – Atlanta University, Physics), William H. Prosser (NASA – Langley, NDE), Jianke Yang (University of Vermont - Mathematics), and Chung Yu (North Carolina A&T State University – Electrical Engineering). Time has also been reserved for all participants to engage in semi-structured discussion sessions.

Abstracts: All NSF—supported participants are encouraged to submit an abstract for a poster presentation of a description of their work relevant to, or related to, one of the topics of the principal or invited lectures; the abstracts will be distributed to participants in order to help facilitate the discussion sessions. An on-line poster abstract submission form is provided for your convenience.

For more see: http://www.ncat.edu/~math/cbms/

#### Math in the JBHE, Two Responses

Below are two African American Mathematicians, Dr. Janis Oldham and Dr. Arlie Petters' responses to interviews published in the **Journal of Blacks in Higher Education**:

#### **Janis Oldham response**

to "Almost No Black Women Teaching College Level Mathematics"

In the current issue of *The Journal of Blacks in Higher Education* (JBHE Winter 2001/2002) a remark attributed to Dr. Janis Oldham in the article "Almost No Black Women Teaching College Level Mathematics" is erroneous. On page 73, the article reads "Dr. Janis Oldham, a tenured mathematics professor at North Carolina A&T (sic) University, advises mathematics students to find an advisor who is active in department politics, active in the math associations, and someone who will be supportive and provide guidance."

Dr. Oldham did not recommend that students seek advisors who "are active in department politics," or to use this as a criteria for selecting an advisor. Dr. Oldham is very actively involved in preparing minority students for graduate school in mathematics, and it never involves teaching "politics" beyond making a few remarks about professional behavior and demeanor. The primary focus is on how to study mathematics at that level.

The phone interview on which the author of the article gleaned that one misrepresentation focused on Dr. Oldham's own experiences, but never about what advice she would give to others. Dr. Oldham did make the observation that many African American women mathematicians seemed to have thesis advisors who were leaders in their departments, but also remarked that no study had been done to verify this. For example a recent Purdue University graduate had the department chair as her thesis advisor, and Dr. Oldhams's advisor had in the past been a department chair. However this was not information that Dr. Oldham knew about her advisor before beginning to work with him; indeed she learned that a few years later when another faculty member was telling stories about the department. Making the observation that there seem to be many thesis advisors of African American women who are politically active in their departments (disproportionately many leaders in a department as advisors as opposed to regular faculty) is not the same as recommending that someone try to find a "politically active" advisor— to "play politics"! What about common research interests??!!

Dr. Oldham's thesis advisor was supportive and gave a lot of guidance. But those recommendations attributed to Dr. Oldham in the JBHE article were inferred incorrectly from remarks made during interview which were misunderstood, twisted, and taken out of context.

Janis Oldham
Associate Professor of Mathematics
North Carolina Agricultural and Technical University
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web: http://www.math.buffalo.edu/mad/PEEPS/oldham janice.html

#### **Arlie Petters Response**

to "The Male Perspective"

TO THE EDITOR of JBHE regarding your segment "The Male Perspective" (p. 71, Winter 2001/02):

My comments to your staff writer were compressed and paraphrased in an incorrect and misleading way. Moreover, the segment did not add any substantive value to the thesis of the piece. Instead, it may have strained the relationship between me and my African-American female colleagues in mathematics.

The article suggests that I view applied math as "soft." Well, I am an applied mathematician. I do not adhere to the bias that pure math is superior to applied math. In addition, the article infers that I believe "The tenure review committee may be hesitant to include African-American women because almost none have a well established track record in the field." This is awfully incorrect. Since we have few African-American Assistant Professors in mathematics seeking tenure, the review committees at the nations highest ranked universities have not had a steady pipeline of candidates (as your statistics corroborates) that would create a presence. Consequently, it seems that there is an apparent climate of suspicion of African-American mathematics candidates. This often leads to extra scrutiny with an end result that if you are very good, but not yet a star, it is very difficult to get a positive tenure vote.

To address the critical issues facing African-American research mathematicians, William Massey spearheaded in the early 1990s an annual Conference for African-American Researchers in the Mathematical Sciences (CAARMS). Last year, I co-organized a CAARMS conference at Duke (see http://cm.bell-labs.com/who/will/caarms7.html). About 100 African-American mathematicians attended and ten — of which half were women — gave plenary lectures. The CAARMS conferences have provided a nurturing, networking environment for research collaboration as well as advice on navigating a successful academic career in mathematics. It would have been more constructive to discuss in your piece the CAARMS conferences and how we are working hard to promote the development of African-American mathematicians ... rather than include a segment of little real value to your main thesis and which may run the risk of creating a rift between African Americans.

Arlie O. Petters William & Sue Gross Associate Professor of Mathematics Duke University

919-660-2812, email: petters@math.duke.edu Web: http://www.math.duke.edu/~petters

# **CAARMS 8 June 18-21** at Princeton University

Eighth Conference for African American Researchers in the Mathematical Sciences to be held June 18-21, 2002 at Princeton University. Events will include a special 60th birthday celebrations for Earl Barnes of Georgia Institute of Technology, Arthur Grainger of Morgan State University and Scott Williams of the State University of New York at Buffalo. All three graduated in 1964 from Morgan State University. There will be twelve invited research presentations, three tutorials and a graduate poster session.

The 8th Conference for African American Researchers in the Mathematical Sciences (CAARMS8) will be held at Princeton University June 18-21, 2002. The invited speakers are:

Augustin Banyaga, Penn State University
Randolph Cooper, California State University, Los Angeles
Jeffrey Fleming, Purdue University
Wilfrid Gangbo, Georgia Institute of Technology
Russell Goward, Purdue University / MSRI / University of Michigan

Ben Hansen, University of Pennsylvania / University of Michigan Rudy Horne, California State University, Hayward Fern Hunt, National Institute of Standards and Technology Mark Lewis, University of Michigan, Ann Arbor Cassandra McZeal, Exxon Mobil Research Asamoah Nkwanta, Morgan State University Vincent G. J. Rodgers, University of Iowa Sherry Scott, Bowie State University Robert Vanderbei, Princeton University Ward Whitt, AT&T Labs Research/ Columbia University

Registration Deadline is June 1. You can register online at the website http://www.princeton.edu/~wmassey/CAARMS8.

For more details, contact Prof. William A. Massey at wmassey@princeton.edu. You can also contact Cynthia Cole at 609-258-0100 or ccole@princeton.edu

#### **2002 Granville-Browne-Haynes Session**

by William A. Massey

On January 8, 2002, the National Association of Mathematicians (NAM) hosted the Granville-Browne-Haynes session of presentations by recent doctoral recipients in the mathematical sciences at the Joint Mathematics Meetings held this year in San Diego, California. These presentations serve as a forum to showcase the achievements of new African American researchers in the mathematical sciences. The event was organized and hosted by Prof. William A. Massey of Princeton University.

Jamylle Carter [photo 1] was born in Detroit, Michigan and raised in Montgomery, Alabama. She received her A.B. degree cum laude in general studies with a concentration in mathematics from Harvard University and her Ph.D. degree in mathematics from the University of California, Los Angeles. Her research Interests include optimization, partial differential equations, calculus of variations and computer graphics. The title of her talk was *Dual Methods for Total Variation-Based Image Restoration*. Dr. Carter is currently a postdoctoral associate with the Institute for Mathematics and its Applications at the University of Minnesota.

Shurron Farmer [photo 2] was born in Tallahassee, Florida and raised in Quincy, Florida. He received his B.S. degree in mathematics from Florida Agricultural and Mechanical University and his Ph.D. degree in mathematics from Howard University. His research interests include difference equations and mathematical biology. The title of his talk was *A Single Species Climax Population Model: Persistence and Extinction*. Dr. Farmer is currently an assistant professor in mathematics at Morgan State University.

Jeffery Fleming [photo 3] was born and raised in Roanoke Rapids, North Carolina. He received his B.S. degree in mathematics from North Carolina Agricultural and Technical State University and his Ph.D. degree in mathematics from Howard University. His research interests include the field of several complex variables. The title of his talk was *Boundedness of a Weighted and Parameter-Dependent Bergman Kernel as a Fourier Integral Operator.* Dr. Fleming is currently a visiting assistant professor in mathematics at Purdue University.

John A. W. Harkless [photo 4] was born in Laurel, Mississippi and raised in Jackson, Mississippi. He received his B.S. degree in both Mathematics and Chemistry from Morehouse College and his Ph.D. degree in Chem-







Shurron Farmer [photo 2]



Jeffery Fleming [photo 3]

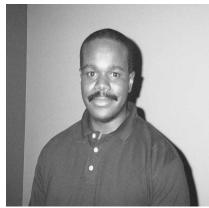
istry from the University of California, Berkeley. His research interests include the development of quantum Monte Carlo techniques and their application to metallic and ionic electronic states. The title of his talk was *Studying Atomic Electronic Structure with the Quantum Monte Carlo Method.* Dr. Harkless is currently a member of technical staff in the Physical and Chemical Properties Division at the National Institute of Standards and Technology.

Rudy Horne [photo 5] was born and raised in Chicago, Illinois. He received his B.S. degrees in both mathematics and physics from the University of Oklahoma and his Ph.D. degree in applied mathematics from the University of Colorado at Boulder. His research interests include solitons, non-linear Schodinger wave equations and complex analysis. The title of his talk was *Four-Wave Mixing in Strong Dispersion-Managed WDM Soliton Systems*. Dr. Horne is currently an assistant professor in mathematics at California State University, Hayward.

James W. McGee III [photo 6] was born and raised in Gulfport, Mississippi. He received his undergraduate degree in mathematics from Jackson State University and his Ph.D. degree in mathematics from Auburn University. His research interests include combinatorics, graph theory and cryptography. The title of his talk was *Path Coverings with Paths*. Dr. McGee is currently an assistant professor in mathematics at the Illinois Institute of Technology.



John A. W. Harkless [photo 4]



Rudy Horne [photo 5]



James W. McGee III [photo 6]



Shona Morgan [photo 7]

Shona Morgan [photo 7] was born in Dayton, Ohio and raised in the Washington D.C. metropolitan area. She has a BS in mathematics from Spelman College in Atlanta, Ga. Dr. Morgan was awarded a David and Lucille Packard Foundation Fellowship to pursue graduate studies in operations research at North Carolina State University and received her Ph.D. degree in that field. Her research interests include combinatorial optimization, integer programming, and supply chain management. The title of her talk was *The Application of Cluster Analysis for the 2-Model Configuration Problem.* Dr. Morgan is currently an assistant professor in operations management at North Carolina Agricultural and Technical State University.

photos by William Massey

#### The 2002 Cox-Talbot Lecture

The 2002 Cox-Talbot lecture was given during the NAM Banquet held at the Joint Mathematics Meetings held this year in San Diego, California. This years lecturer was Dr. Gloria Conyers Hewitt. She was introduced by Dr. Sylvia Bozeman. The photo below on the left [by Jacqueline Giles] shows Dr. Hewitt flanked on the left and right by, respectively, Dr. Beauregard Stubblefield and Dr. Johnny Houston.





#### The 2002 Claytor-Woodard Lecturer

The 2002 Claytor-Woodard Lecture was held at the Joint Mathematics Meetings held this year in San Diego, California. This years lecturer was Dr. Katherine Okikiolu of the University of California at San Diego.

The photo [by Scott Wiliams] above on the right shows Dr. Okikiolu receiving a plaque from NAM president Dr. John Alexander thanking her for an exciting lecture Spectral Zeta Functions.

#### **Support AMUCHMA**

For 24 issues, the African Mathematical Union's Commission on the History of Mathematics in Africa (AMUCHMA) has revealed new and interesting mathematical material to the world of history, archeology, and education. The reproduction and distribution of the first 24 issues of the AMUCHMA Newsletter counted with the generous support from the Research Department of the Swedish International Development Agency (SIDA-SAREC). The contract with SIDA-SAREC came to an end and there is a call for support financially AMUCHMA's activities and/or to suggest alternative sources of financing.

Thanks to Scott Williams, the English language edition of all issues of the AMUCHMA Newsletter is also accessible for free on the following website:

http://www.math.buffalo.edu/mad/AMU/amuchma\_online.html

#### **Job Openings**

#### **Job Openings Web Site**

Recall that for several years, NAM has had a web site with job openings. This process is open to advertisers in the Newsletter. The advertisements appear there four to six weeks before they appear in the Newsletter. Go to the editor's NAM web site within MAD:

http://www.math.buffalo.edu/mad/NAM/NAM-index.html

#### **University of Louisville**

The Department of Mathematics at the University of Louisville invites applications for one tenure track Assistant Professor position in statistics, subject to budgetary approval, to begin July 1, 2002. A Ph.D. in statistics or related area is required. Candidates must show a strong potential in research and teaching and have effective communication skills. Applications should include: (1) the American Mathematical Society's standard cover sheet, (2) curriculum vitae, (3) summary of research interests, (4) statement of teaching qualifications, and (5) at least four letters of recommendation, including letters which discuss, in some detail, the candidate's teaching qualifications. Applications should be sent to: Search Committee, Department of Mathematics, University of Louisville, Louisville, KY 40292. Review of applications will begin immediately and continue until the position is filled. Email questions to math@louisville.edu. The University of Louisville is an Affirmative Action/Equal Opportunity Employer and encourages women and underrepresented minorities to apply. Applicants must comply with the provisions of the Immigration Reform and Control Act.

#### **University of Missouri-St Louis**

The Department of Mathematics and Computer Science at the University of Missouri-St. Louis seeks to make an appointment at the rank of associate or full professor to take a leadership role in the Ph.D. program in Applied Mathematics. (The Department also has open positions in computer science, at the assistant professor level.) The successful candidate should have a strong research record in applied mathematics, computational science and/or industrial mathematics, a commitment to quality teaching, and a history of funding from major granting agencies. The salary is competitive. Applications, including a curriculum vita, a letter of application, and a completed AMS standard cover sheet should be sent to:

Ray Balbes, Chair; University of Missouri-St. Louis; Department of Mathematics and Computer Science 8001 Natural Bridge Road; St. Louis, MO 63121-4499.

Applicants are to have at least three letters of recommendation sent. The University of Missouri is an Affirmative Action/Equal Opportunity Employer committed to excellence through diversity. For more information please visit our web site http://www.math.umsl.edu.

#### **West Chester University**

Applications are invited for a tenure-track, assistant professor position in mathematics beginning August 2002. Responsibilities include teaching four courses per semester. Candidates must possess a Ph.D. in Mathematics or Applied Mathematics. Preference will be given to candidates in the following areas: computational mathematics, interdisciplinary mathematics, or industrial mathematics. Candidates must have demonstrated excellence in teaching, and must have a strong research potential. Experience in any of the following is desirable: course and program development, innovative teaching techniques including technology, or supervising undergraduate research.

Applications must include a curriculum vita, a brief statement of teaching philosophy, a brief research prospectus, three letters of recommendation, and evidence of teaching effectiveness. Review of applications will begin December 1 and continue until the position is filled. Demonstration(s) of teaching effectiveness will be required as part of the on-campus interview. Applicants should submit all materials to Chair, Search Committee; Mathematics Position; Department of Mathematics; West Chester University, West Chester, PA 19383

For information about the Department and University visit, http://math.wcupa.edu/. West Chester University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

#### The University of Texas at Austin

Openings for Fall 2002 include: (a) Instructorships, some that have R.H. Bing Faculty Fellowships attached to them and others that are VIGRE Instructorships, and (b) four or more positions at the tenure-track/tenure level.

(a) Instructorships at The University of Texas at Austin are postdoctoral appointments, renewable for two additional years. It is assumed that applicants for Instructorships will have completed all Ph.D. requirements by August 28, 2002. Other factors being equal, preference will be given to those whose doctorates were conferred in 2001 or 2002. Candidates should show superior research ability and have a strong commitment to teaching. Consideration will be given only to persons whose research interests have some overlap with those of the permanent faculty. Duties consist of teaching undergraduate or graduate courses and conducting independent research. The projected salary is \$39,000 for the nine-month academic year.

Each R.H. Bing Fellow holds an Instructorship in the Mathematics Department, with a teaching load of two courses in one semester and one course in the other. The combined Instructorship-Fellowship stipend for nine-months is \$42,000, which is supplemented by a travel allowance of \$1,000. Pending satisfactory performance of teaching duties, the Fellowship can be renewed for two additional years. Applicants must show outstanding promise in research. Bing Fellowship applicants will automatically be considered for other departmental openings at the postdoctoral level, so a separate application for such a position is unnecessary.

VIGRE Instructorships are partially funded by an NSF VIGRE Grant awarded to the department (in partnership with the Texas Institute for Computational and Applied Mathematics). The combined Instructorship-VIGRE Postdoctoral Fellowship carries a nine-month stipend of \$40,000, with an annual allocation of \$2500 to cover equipment, supplies, and travel. The position also includes summer support in the amount of \$6500 for the first two summers of the appointment. The teaching load for VIGRE Instructors is one course per semester. Only citizens, nationals and permanent residents of the U.S. are eligible for VIGRE Instructor appointments. Furthermore, a VIGRE Instructor must have received the Ph.D. within eighteen months of the date the appointment becomes effective. All eligible applicants for postdoctoral positions in either the Mathematics Department or TICAM will automatically be considered for a VIGRE Instructorship.

Those wishing to apply for Instructor positions are asked to send a vita and a brief research summary to address: THE UNIVERSITY OF TEXAS AT AUSTIN; AUSTIN, TEXAS 78712; c/o Instructor Committee. Transmission of the preceding items via email (address: instructor@math.utexas.edu) is encouraged.

(b) An applicant for a tenure-track or tenured position must present a record of exceptional achievement in her or his research area and must demonstrate a proficiency at teaching. In addition to the duties indicated above for Instructors, such an appointment will typically entail the supervision of M.A or Ph.D. students. The salary will be commensurate with the level at which the position is filled and the qualifications of the person who fills it.

Those wishing to apply for tenure-track/tenure positions are asked to send a vita and a brief research summary to the above address, c/o Recruiting Committee. Transmission of the preceding items via email (address: recruit@math.utexas.edu) is encouraged.

All applications must be supported by three or more letters of recommendation, at least one of which speaks to the applicant's teaching credentials. The screening of applications will begin on December 1, 2001. The University of Texas at Austin is an equal opportunity employer.

#### **2002 NAM Regional Faculty Conference**

The Regional Faculty Conference was held March 15-16, 2002 at Bowie State University in Bowie, MD. See http://www.math.buffalo.edu/mad/NAM/nam-regional-conference.html

#### **African Journal of Mathematics**

There is a new journal. The African Journal of Mathematics. The editor-in-chief is Dr. Joshua Leslie, a Professor and Chair of Mathematics at Howard University.

The African Journal of Mathematics is an international journal for mathematical research of highest rank. It offers a forum for mathematical research with some emphasis on the contributions of African mathematicians and the rich connections between African Universities and those of other continents. Papers in all areas of Mathematics will be considered.

At the journal's web page you can read about the Editorial board, Honorary Editor, addresses, and other journal information.: Authorship, Manuscript submission, Subscription, Links, Events web page: http://www.african-j-math.org/

#### **Blacks in Latin America and the Caribbean**

For selected bibliographic sources on Blacks in Latin America and the Caribbean, see: http://www.lib.utexas.edu/benson/bibnot/bn-54-1.html

# NAM'S ENDOWMENT CAMPAIGN "A CAMPAIGN FOR THE PERPETUITY OF NAM" PLEDGE - CONTRIBUTION FORM

The principal of the campaign is never to be spent; only the interest and dividends received from the investment of these funds may be spent. (All life memberships will go toward NAM's campaign).

To help with the success of this campaign, we are requesting all members and friends of NAM to contribute what you can and to assist NAM by helping NAM to locate other contributors.

Please pledge the amount that you desire to contribute and please honor all pledges (where feasible) by paying \$100.00 or more toward the pledge. Persons may pay for a Life Membership over a period of one year by making four payments of \$100.00 each.

Send to: Dr. Robert E. Bozeman, Secretary-Treasurer, NAM; Depart. of Mathematics; Morehouse College; Atlanta, GA 30314; (404) 215-2613 (office); rbozeman@morehouse.edu

#### PLEDGE/CONTRIBUTION LEVELS

All contributions are tax deductible. (Please make checks payable to NAM's Endowment Campaign)

1.	Life Membership (LM) in NAM	\$400		
2.	Bronze (B)	\$500 - 999		
3.	Silver (S)	\$1,000 - 4,999		
4.	Gold (G)	\$5,000 — 9,999		
5.	Diamond (D)	\$10,000 – 24,999		
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#### 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 APPROPRIATE MEMBERSHIP TYPE** [] STUDENT: \$15 []INDIVIDUAL: \$25 []CONTRIBUTING: \$50 []SUSTAINING: \$75 []INSTITUTIONAL:\$100 []LIFE:\$400 PLEASE REURN THIS COMPLETED FROM AND MEMBERSHIP DUES TO: Dr. Robert E. Bozeman, Secretary-Treasurer National Association of Mathematicians: Department of Mathematics Morehouse College Atlanta, GA 30314 (404) 215-2613 (office) E-mail: rbozeman@morehouse.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 Member (specify interest): Interest Need additional information about the organizational structure of NAM

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