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IN THE NEWS

J. Ernest Wilkins Jr., who received a Ph.D. in mathematics from the University of Chicago as a 19-year-old in 1942, was honored by the University Friday, March 2. Among his many achievements, Wilkins in 1976 became the second African American to be elected to the National Academy of Engineering. The University of Chicago commemorated Wilkins's achievements by hanging his portrait and a plaque in his honor in the famed Eckhart Hall Tea Room.

CARRMS 13 will be held June 19 to June 22 at Northeastern University and the University of Massachusetts, Boston. See inside for more information.

Infinite Possibilities Conference 2007 will take place at North Carolina State University November 2-3, 2007. See inside for more information.

NAM's MATHFest 17 will be held at Spelman College in Atlanta on November 8,9, and 10, 2007.

During the Business meeting of 2007, NAM realized it must raise its yearly membership dues from \$25 to \$50. It was an oversight that the dues change was not reflected in the issue 38.1, the first Newsletter issued this year. To those of you who thankfully submitted your dues we ask you to consider sending an additional \$25.

Please Pay Your NAM Dues. This Newsletter and NAM's programs are financed by its dues paying membership. See the end of the newsletter for the form.

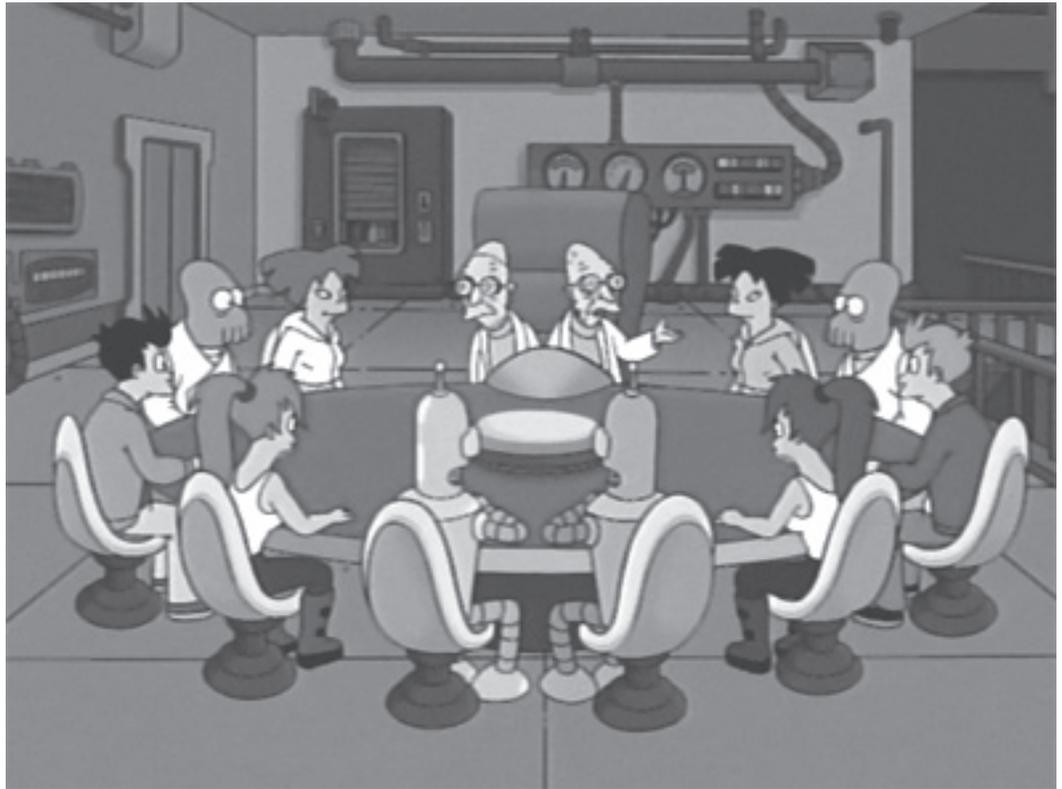
The Southern University staff has agreed to be the editor(s) of the NAM Newsletter. Scott Williams, the current editor will retire at the end of 2007.

We express our thanks to Dr. Dawn Lott for constructing and arranging the new official NAM website at <http://www.nam-math.org/>

NAM Newsletter 31.2 summer 2000 (this is available online) discussed Math in the movies and on TV. This article is an addendum,

The Farnsworth Parabox

After nearly dying because of an experiment, Professor Farnsworth decides to destroy the experiment—a yellow box—by dumping it into the Sun. Keeping it overnight in the lab, he orders the Planet Express staff not to open it and assigns Leela as a guard to make sure. However, after her shift is over, Leela is tempted by curiosity, flipping a coin to decide whether to open the box. The coin comes up heads, and as such, she does, discovering the box is in fact larger on the inside. She falls into it ending up in a parallel universe where coin flips come out with the opposite result. Consequently, Bender is painted gold, Fry and Leela dated and then got married after Leela flipped a coin to decide, and Farnsworth performed an experiment wherein he tried to remove his own brain.



At first, the parallel universe staff believe Leela is evil, and the parallel Leela forces the original Leela's colleagues (except for Hermes) into the parallel universe. The two Farnsworths discover that, just as the original Farnsworth created a box containing the parallel universe, the parallel Farnsworth created a box containing the original universe. The two Farnsworths dub the original universe "Universe A", and the second "Universe 1". The two groups agree to watch their counterparts to determine if the other is evil, but after studying the Scriptures, the Professors decide that nobody is evil after all.

When Universe 1's Hermes comes in to destroy the Universe A box by throwing it into the Sun, the crew realize that Universe A's Hermes must be doing the same thing. They decide to go back through the box to stop Hermes-A. However, the Universe A box is missing, stolen by the two Zoidbergs, who are tired of everyone in both universes ignoring and being disrespectful to them. The two Farnsworths try to recreate the Universe A box, but wind up creating a large number of boxes, all connected to different universes.

The two Zoidbergs return, and everyone else tries to get the box from them. The Zoidbergs jump into another box to escape, and in the process bump into the bookshelf containing

the boxes, causing all of them to fall. Unable to tell which box the Zoidbergs jumped into, everyone selects a box to jump into and find them, grabbing a length of wire so they can find their way back. Eventually finding the two Zoidbergs, everyone makes their way back to Universe 1, then leaps into the Universe A box.

Meanwhile, in Universe A, Hermes-A, aboard the Planet Express Ship-A, has reached the Sun-A and is about to eject the box. At the last moment, everyone else pops out of the box into the airlock. Farnsworth-A orders Hermes-A not to push the eject button. After several moments of consideration, Hermes shrugs and obeys.

Back on Earth, both Farnsworths exchange their boxes by pulling each box into the other's universe simultaneously. Farnsworth tells the staff to treat the box very carefully as it contains their own universe. Bender then shakes the box, causing earthquake-like effects. Afterwards, while the rest of the staff are watching television, Fry comes into the room and sits on the box, causing the universe to become short and squat. However, this detail is unnoticed by the characters.

"The Farnsworth Parabox" is the fifteenth episode of the fourth production season of the Fox cartoon Futurama. It first aired June 8, 2003. You can see re-runs of this show on the Cartoon Channel. I found the complete script of the program at <http://www.geocities.com/theneutralplanet/transcripts/season5/4ACV15.html>.

However, brief (a minute or less) scenes from this parallel universe show are on the internet, search "Farnsworth Parabox" on youtube or start with <http://www.youtube.com/watch?v=eAfs4aFyd90>

Mersenne Primes

Some prime numbers have the form $2^n - 1$. For example, this is true for n , $1 \leq n \leq 7$; i.e., the numbers 3, 7, 15, 31, 63, and 127 all have this property, but not $2^8 - 1 = 255$. A prime number p is said to be a Mersenne prime if $p = 2^n - 1$ for suitable n . Indeed, the next in order, the 5th Mersenne prime is $1,461 = 2^{13} - 1$ was probably first discovered in the 16th century. One less than 2 raised to the 13,466,917 power, the 39th, in order, Mersenne prime was only discovered in 2001. What is interesting, though we know five Mersenne primes larger than the 39th. We do not know whether they are respectively, the 40th, 41th, 42nd, 43rd, and 44th. The 44th Mersenne prime, discovered in 2006, is one less than 2 raised 232,582,657 power, and is 9,808,358 digits long. If you are the first to find the 45th Mersenne prime you will win \$100,000 prize from the Electronic Frontier Foundation). If your computer is idle, there is a program which allows you to join the hunt. You will get the prize if your machine finds it. The Great Internet Mersenne Prime search: <http://www.mersenne.org/prime.htm>

Review: The Pleasures of Counting by T. W. Körner

As I am fortunate to have colleagues genuinely interested in many things, mathematical and otherwise, numerous books come to my attention. Thus, after an NPR interview, I purchased and read a special book nearly ten years ago. A book with the seemingly uninteresting, to a mathematician, title "The Pleasures of Counting." I was attracted to Körner's book after a colleague described the author's rendition of how statistics began to affect medicine, in particular, how it led to the effective treatment of cholera.

The New York Times claims it is accessible to 12 year olds, similarly, Körner claims his book is meant for "undergraduates who are interested in mathematics and would like to learn something of what it looks like at a higher level" of applied mathematics, but it is accessible to 14 year old children. I remembered this book as I was requested to make a summer reading listy for our math majors. The 11 year old extraordinary daughter of a friend said she adored this book.

"The Pleasures of Counting" is a series of stories about using mathematics to understand our environment. Aside from the mathematics in the aforementioned history of discovery and cure of cholera. Körner also writes about one of the simplest problems, we know, thanks to Alan Turing, is unsolvable – The Halting Problem. He also writes about something else that involved Turing, code breaking in World War II. The chapters 10 and 11 on classic and modern algorithms would be great guide for an undergraduate reading course or seminar. My favorite chapter is 17 Time and Chance. Even the footnotes are very interesting and reveal a rich history of mathematics.

If you remain unenthused, here are three brief reviews from amazon.com:

"This extremely enjoyable book aims to introduce the casual or 'mathematics for poets' reader to some interesting ways in which mathematics arises in the real world...contains a large number of entertaining anecdotes and quotations, especially about military history, as well as a list of recommendations for further reading and full source of information about the quotations." J.S. Joel, Mathematical Reviews

"Körner, is an experienced teacher, and he has written his book in the expectation that once snared by mathematics, the reader will be forever enslaved....It is an entirely commendable project, one that Korner executes very well." David Berlinski, The Sciences

"...a wonderful book, a must for all those interested in mathematics and a treasure trove for those who want to enthuse future generations of youngsters for the beauty of our field." Paul Embrechts, JASA

For a complete review see: www.ams.org/notices/199803/comm-bkrev-blank.pdf

When last I looked, the hardcover price was under \$60 and the paperback was under \$30, however, at twice the price, this book would be excellent for any mathematician's personal library.

Cambridge University Press, 1996. 534pp. ISBN 0 521 5607 X.

The Conference for African American Researchers in the Mathematical Sciences

CARRMS 13 will be held June 19 to June 22 at Northeastern University and the University of Massachusetts, Boston. Here is a partial list of speakers and titles:

TUESDAY, June 19 6:00 – 9:00

Welcoming Reception

WEDNESDAY, June 19

Arthur Grainger (Morgan State University) - Ultrafilters on the collection of finite subsets of an infinite set

Angela Grant (Northwestern University)

Floyd Williams (University of Massachusetts, Amherst) - Modular forms: an introductory survey with some applications to black hole physics

Adrian Wilson (University of Mississippi) - Graph groupoids and their topology

Suzanne Weekes (Worcester Polytechnic Institute) - Spatiotemporal composite materials

Graduate Student Poster Session and Reception

THURSDAY, June 21

Aissa Wade (Penn State University) - Poisson geometry and applications

Emmett J. Lodree, Jr. (Auburn University) - Inventory logistics planning for hurricane relief operations

Floyd Williams, University of Massachusetts at Amherst

Bryan Williams (Hampton University) - Large circuit pairs in matroids

Susana Salamanca-Riba (New Mexico State University)
Reception and Banquet

FRIDAY, June 22

Robin Wilson (University of California, Santa Barbara) - Almost normal bridge surfaces in knot complements

Alfred G. Noel (University of Massachusetts, Boston) - The Atlas of Lie groups and representations: scope and successes

Juan Meza Lawrence Berkeley National Laboratory
Juan Meza (Lawrence-Berkeley National Laboratory) - A Short Tour of Computational Science and Mathematics

Closing Discussion

more details at: <http://www.princeton.edu/~wmassey>

Infinite Possibilities Conference 2007

This coming November, an exciting and enriching event, the Infinite Possibilities Conference 2007 (IPC), will take place at North Carolina State University. The purpose of the Infinite Possibilities Conference is to celebrate, promote, support and encourage underrepresented minority women interested in the mathematical and statistical sciences.



Shown left to right above are the Infinite Possibilities Conference co-chairs, Tanya Henneman Moore, Leona Harris, and Kimberly Weems.

Conference Website: <http://www.ipcmath.org> or info@ipcmath.org
Tanya Henneman Moore tel. 510.207.3302 or thenneman@gmail.com
Lily Khadjavi tel. 310.729.9580 or lkhadjavi@lmu.edu

In 2005, the Spelman College Department of Mathematics hosted the first ever Infinite Possibilities Conference, a two-day conference that attracted around 150 women mathematicians of color from all over the country. Spelman alumnae Drs. Leona Harris, Tanya

Henneman Moore, and Kimberly Weems, are Co-chairs for this year's event, to be held November 2-3, 2007, at North Carolina State University in Raleigh, North Carolina, where Dr. Weems is in the Department of Statistics. When asked why this conference was needed, IPC creator and co-chair Dr. Henneman said, "Women throughout history have battled for the opportunity to develop their minds and showcase their talents to their fullest potential in society without prejudice. I believe that as the future generations of women see more positive and successful mathematician and scientist role models that look like them and as they gain greater access into quality educational programs, they will connect to their potential and talents and add value to the fields of science and mathematics."

Highlights of the 2005 conference included a lecture given by keynote speaker Dr. Evelyn Boyd Granville, the second African-American woman in the U.S. to earn a Ph.D. in Mathematics, from Yale in 1949, and lectures given by Phoenix College Professor and chair of the Department of Mathematics, Dr. Cleopatria Martinez and Dr. Fern Hunt, a research mathematician at the National Institute of Standards and Technology. Dr. Granville's address "African-American Women in Mathematics: A Rich and Proud Legacy" was eloquent, passionate, gracious, and received a standing ovation. "Dr. Martinez was a special addition for me," says Dr. Shree Taylor, one of the IPC 2005 conference organizers, "She fed my spirit with her wisdom and experience as a female mathematician of color. She did what few others rarely do—she addressed the human mathematician—most only address our intellect."

This year's conference promises similarly inspiring keynote speakers, as well as activities including research talks given by professionals, student poster sessions, roundtable discussions on experiences with mathematics, and panel discussions on graduate studies in mathematics, professional development and balancing the professional and personal lives. A new addition to the conference format will be the inclusion of high school students and, ideally, the development of mentoring circles at every stage of the educational and professional pipeline.

The Etta Z. Falconer Banquet is the culminating event of the Infinite Possibilities Conference, honoring the late Dr. Etta Falconer, who devoted 37 years to teaching mathematics at Spelman College and improving the quality of mathematics and science education at the college. During the 2005 banquet, the inaugural Etta Z. Falconer Award for Mentoring and Commitment to Diversity was presented to Dr. Janis Oldham, Associate Professor in the Department of Mathematics at North Carolina A&T State University. Nominations for this year's Etta Z. Falconer Award for Mentoring and Commitment to Diversity are due July 31, 2007.



Attendees from IPC 2005 included, from right to left, keynote speaker Evelyn Boyd Granville, Jeannine Abiva, and Edward Granville, Dr. Granville's husband.

“Our hope,” says Dr. Henneman, “is that the Infinite Possibilities Conference will increase the participation of underrepresented minority women in the mathematical sciences by allowing participants to discover the infinite possibilities mathematics can offer them in their academic and professional journeys. Our primary goal for the conference was to create a space to provide the information, support and necessary networks needed for each conference participant to realize their potential and to fulfill their particular purpose within the mathematics community.”

Gayle Herrington, a member of the IPC 2005 conference steering committee, summed up the events of the conference by saying, “The Infinite Possibilities Conference provided several counterexamples to the recent comments made by Harvard president, Lawrence Summers describing the inability of women to excel in mathematics. Women representing various dimensions of mathematics joined in conversations that challenged the stereotypes, built new relationships, and looked to the future. The sharing of ‘herstory’ in the making was powerful.”



Shown above are Leona Harris (The College of New Jersey), Tanya Henneman Moore (City of Berkeley Division of Public Health), Sonya Snedecor (Pharmerit), Kimberly Weems (N.C. State University), Jamylle Carter (San Francisco State University), Lily Khadjavi (Loyola Marymount University), Kimberly Sellers (Georgetown University), Camille Daniel (Johns Hopkins University), and Rotunda Floyd (Maryland MESA)

The 2007 conference is sponsored by: the non-profit Building Diversity in Science, North Carolina State University, and the Statistical and Applied Mathematical Sciences Institute (SAMSI), with funding from an American Statistical Association Strategic Initiatives Grant, an MAA Tensor Grant, and the National Security Agency. A particular emphasis has been placed on providing funding for student attendance, from high school through graduate school. For information on conference registration, nomination for the Etta Z. Falconer Award for Mentoring and Commitment to Diversity, submission of abstracts, and more, please see the IPC website, www.ipcmath.org.

A Tribute to African Mathematics

Dr. Paulus Gerdes has been a professor of mathematics at the Eduardo Mondlane University and at the Universidade Pedagógica in Mozambique for many years, serving as Rector of the latter from 1989-1996. He was a visiting professor at the University of Georgia from 1996 to 1998. He has served the African Mathematical Union as chair of the Commission on the History of Mathematics in Africa, since 1996, and was the secretary of (SAMSA) the Southern African Mathematical Sciences Association (1991-1995). Gerdes is a prolific contributor of work that reinforces a growing literature available in English of a dynamic research program in ethnomathematics.

Here are a ten of Gerdes most important books:

1. Mathematics in African History and Cultures: An Annotated Bibliography (2007)
2. African Doctorates in Mathematics. A Catalogue (2007). Here Gerdes does in print for Africa that which Mathematicians of the African Diaspora has attempted to do, catalog all African Mathematicians.
3. Drawings from Angola: Living Mathematics (2007)
4. Awakening of Geometrical Thought in Early Culture (2003)
5. Geometry from Africa (Classroom Resource Material) (1999).
6. Women, Art and Geometry in Southern Africa (1998).
7. Lusona: Geometrical Recreations of Africa (1997).
8. Lunda geometry: Designs, polyominoes, patterns, symmetries (1996).
9. African Pythagoras: A study in culture and mathematics education (1994).
10. Sona Geometry: Reflections on the Sand Drawing Tradition in Africa South of the Equator.

Sona Geometry provides readers with a glimpse into the mathematics of an African tradition—sona geometry, a drawing and narrative tradition from Angola with embedded mathematical ideas. The work represented in this book contributes significantly to efforts by other African mathematicians and mathematics educators to recuperate and valorize mathematical ideas and reasoning that reside in African material culture and cultural practices.

NAM Calendar

You can find NAM's *Online Conference* Calendar and the most recent links to relevant conferences announcements at NAM's official website <http://www.nam-math.org/>

Many details concerning 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 :

2007: Secretary/Treasurer; Region C Representative; Community College Representative.

2008: President; Region A Representative; Government/Industry Representative.

2009: Vice President; Region B representative; Majority Institution Representative.

2010: Secretary/Treasurer; Region C Representative; Community College Representative.

2011: President; Region A Representative; Government/Industry Representative.

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 web site within MAD: <http://www.math.buffalo.edu/mad/NAM/>

Please Pay Your NAM Dues

NAM's programs are financed by its dues paying membership. Please pay. See the end of the newsletter for the form.



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 : \$30

Individual : \$50

Contributing : \$100

Institutional : \$150

Life : \$400

PLEASE RETURN THIS COMPLETED FORM AND MEMBERSHIP DUES TO :

Dr. Roselyn Williams, Secretary-Treasurer

National Association of Mathematicians;

P.O. Box 5766

Tallahassee, Florida 32314-5766

Phone: (850) 412-5236 (O) E-mail: roselyn.williams@fam.u.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 _____ 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

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African American Hispanic American White Other _____

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