



The Sum Times

SEPTEMBER 2014

SPECIAL POINTS OF INTEREST:

- **Message From the Chairperson**
- **Fall Semester Dates to Remember**
- **New Faculty Spotlight**
- **Math Club News**
- **MLRC**
- **Math Dept. Summer Highlights**

Message from Dr. Norton

Welcome back: the stream-of-consciousness edition. "Welcome Back": the John Sebastian theme song for the fall 1975 – spring 1979 sitcom *Welcome Back, Kotter*. (Oddly, exactly the time I was an undergraduate at Wake Forest.) The show was going to be called *Kotter*, but Sebastian wrote the song because he couldn't find enough reasonable rhymes for "Kotter" (how about blotter, daughter, hotter, alma mater, otter, plotter, slaughter, spotter, squatter, totter, trotter, water? Maybe not "reasonable"...), and they changed the name of the show to go with the song. *Welcome Back* is also an upcoming Bollywood comedy film, directed by Anees Bazmee, a sequel to the 2007 comedy *Welcome*. Back to TV. *Kotter* overlapped with *Mork & Mindy*, on from 1978 to 1982. Ah, nanu nanu, Robin Williams. The world needed him more than he realized. How about Robin in *Good Will Hunting*, helping a math geek find himself? The Waterboys on the soundtrack of *GWH* with "Fisherman's Blues": "I wish I was a fisherman / Tumblin' on the seas / Far away from dry land / And its bitter memories..." Some other deaths this summer: September 4: Habib Wali Mohammad, 93, Pakistani ghazal singer. August 5: Dmitri Victorovich Anosov (Дмитрий Викторович Аносов), Russian mathematician, known for his contributions to dynamical systems. If a differentiable map f on M has a hyperbolic structure on the tangent bundle, then it is called an Anosov map. Examples include the Bernoulli map and Arnold's cat map. July 14: Vilhjálmur Hjálmarsson, 99, Icelandic politician. June 11: several folks: Michael Brown, 93, American songwriter of industrial musicals, including "The Wonderful World of Chemistry" for the 1964 New York World's Fair. In 1956 Brown and his wife Joy gave Harper Lee a year of financial support with a note: "You have one year off from your job to write whatever you please. Merry Christmas." We may not have had *To Kill a Mockingbird* without that gift. Also June 11: Ruby Dee, 91, civil rights activist, winner of an Emmy, a Grammy, and the National Medal of Arts. Also June 11: Rafael Frühbeck de Burgos, 80, Spanish conductor and composer, known in part for recordings of the complete works of Manuel de Falla and a series of complete zarzuela recordings. Claude Horan, 96, American ceramic and glass artist and surfer. Susan B. Horwitz, 59, American computer scientist, noted for research on program slicing and dataflow-analysis. Her undergraduate degree was in Ethnomusicology. Wow. June 11 was a bad day. Finally, May 28: Maya Angelou, 86, author, poet, dancer, actress, singer, Southern Christian Leadership Conference coordinator, journalist in Egypt and Ghana, and professor since 1982 at Wake Forest. She had made guest appearances on campus before then, during my time there. She was amazing. I don't know why the caged bird sings, but she did. From her 1993 inaugural poem "On the Pulse of Morning": "Here on the pulse of this new day / You may have the grace to look up and out / And into your sister's eyes, and into □ / Your brother's face, your country / And say simply □ / Very simply □ / With hope □ / Good morning." So as John Sebastian said: "But those dreams have remained and they're turned around. / Who'd have thought they'd lead ya / Back here where we need ya." Good morning. Welcome back.



Dr. Douglas Norton
Dept. of Mathematics and
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WELCOME BACK Students and Faculty!

Fall
Semester
Dates To
Remember:

Oct. 10 (F)	Mid-Term
Oct. 13 (M)	Semester Recess
Oct. 20 (M)	Classes Resume
Oct. 24–26 (Fr-Su)	Homecoming
Oct 29 (W)	Registration Begins
Nov. 7–9 (Fr-Su)	Special Olympics
Nov. 25 (Tu)	Thanksgiving Recess after last class
Dec. 1 (M)	Classes Resume
Dec. 13–19 (Sa-Fr)	Final Examinations
Dec. 22 (M)	Final Grades Due (noon)

New Faculty Spotlight

There's been a lot of change in the Math department since last year, we've added a new Statistics minor, started an inspirational quote board in the office, and have continued to grow our social media presence. What's more exciting is that we have three new faces joining our faculty! See below for a brief background on each of the new professors we're welcoming to the Department of Mathematics and Statistics this year!



Kathryn A. Haymaker, PhD
PhD, University of Nebraska-Lincoln

Dr. Haymaker received her Master of Science in Mathematics from the University of Nebraska-Lincoln and her Bachelor of Arts in Mathematics and French Studies from Bryn Mawr College. Her research interests include coding for flash memories, algebraic and graph-based coding theory, and applied discrete mathematics. While at UNL, Dr. Haymaker was part of the instructional team for a modeling course called "Math in the City" that uses local data to create and test mathematical models.

Beth Malmskog, PhD
PhD, Colorado State University

Dr. Malmskog's previous experience includes working in the cryptography group of Microsoft Research Redmond under Kristin Lauter where she studied lattice based cryptosystems. Her graduate studies focused on maximal curves, zeta functions, and digital signatures. Dr. Malmskog's paper "The a -numbers of Jacobians of Suzuki Curves" was published in Proceedings of the American Mathematical Society.



Yimin Zhang, PhD
PhD, Oklahoma State University



Dr. Zhang's areas of specialty in statistics include multiple comparisons, simultaneous inference, and stepwise tests. Her articles "The Restricted Scheffe Method Using the Minimal Cone Approach for Multiple Comparison" and "Sequential Testing Procedures for Single-step Methods" are being prepared for publication and were presented at the Joint Statistical Meetings in 2013 and 2014



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**Mathematics Learning
And Resource Center
(MLRC)**

Location: 211 Falvey Library

Dates: September 3– October 9
October 20–November 24
December 1– December 11

Hours: Sunday 6:30–9:00pm
Mon.–Thurs. 1:00–5:00pm
& 6:30–9:00pm

Phone: 610-519-MLRC (6572)

*Check out our web page at
www.villanova.edu/mlrc for more MLRC info
regarding Villanova math course, tutoring*

Villanova Math Club



The officers of Math Club are excited to welcome returning and new Math Club members! This year, Math Club is under new leadership:

President - **Danielle Rivero** (junior Math Major)
Vice President - **Karolina Golabek** (sophomore Math Major)
Treasurer - **Caroline Staub** (junior Math Minor)

Everyone is welcome to join Math Club - Math Majors and Minors, Liberal Arts and Sciences students, Business students, Engineering students, graduate students. **If you love math, are interested in it, need help with it, or simply want to meet new people**, then Math Club is the club for you!

Meetings will take place approximately every three weeks in the MLRC and will include snacks, discussions about classes and professors, as well as fun activities such as math-themed competitions. This year the Math Club is planning on organizing several events, for instance, **Pi Week, homework and study sessions, a professional development night, and a T-shirt design contest.**

For more information, contact any of the officers:
driverso@villanova.edu, kgolabek@villanova.edu, or cstaub1@villanova.edu.

Summer Highlight from the Math Department

Participants came from:

UK
Israel
Japan
Spain
Russia
China
Denmark
India
Poland
And more!



The Villanova Department of Mathematics and Statistics hosted an international conference on the Modern Trends in Algebraic Graph Theory (MTAGT) in June.

Running from June 2-5, the event was funded by a National Science Foundation grant, VU CLAS, VU Office of Research and Graduate Programs, VU Office of Research and Sponsored Projects, VU Office of the Vice President of Academic Affairs, and VU Office of the President. Dr. Andrew Woldar was the Villanova professor who hosted the conference.

We had a wonderfully strong and diverse group. More than half of the 110 participants traveled to Villanova from 20 different nations. Over 20% of the participants were female, and roughly 25% were graduate students/recent PhDs. .

Visit <http://www1.villanova.edu/villanova/artsci/mathematics/newsevents/mtagt.html> for information on the presentations shown during the weekend.