



## MAXIMA: News and Highlights from the Department of Mathematical Sciences

The University of Texas at El Paso

<http://www.math.utep.edu>

Fall 2009

### MARIANI BECOMES NEW CHAIR (& FIRST CHAIRWOMAN) OF DEPARTMENT



A national search for a new department chair yielded a quality and historic result for the department — less than an hour's drive away! Dr. Maria Christina Mariani, an accomplished faculty member at NMSU from 2003-2009, joined UTEP to begin serving as our new chair this past July. Mariani is a strong researcher in the area of nonlinear and stochastic problems with applications to physics and

finance. Her graduate degrees and first faculty position were at the University of Buenos Aires. Biology professor Dr. Steve Aley bravely and ably served our department last school year as interim chair (while continuing his position as Associate Dean in the College of Science), and is now happy to be back down to “one job instead of two.”

### HOMECOMING GETS *BIGGER!*

JOIN US at the  
**College of Science Homecoming BRUNCH**  
for alumni, faculty, students & friends  
on Sat., Oct. 3, 2009, 9:30-11:30am  
in the third floor Reading Room  
of the Geological Sciences Bldg.  
(corner of Wiggins & University).  
The event is **free** and no reservation is required.  
For more information, contact  
COS' Roxanne Giron:  
915-747-5042 or roxcan@utep.edu

### From the Chair

I am very pleased and excited to begin serving as the new chair. UTEP has been recently designated as a Tier I emerging institution, and I share the vision of President Natalicio, Provost Jarvis and Dean Morrobel-Sosa of UTEP as a center of access and excellence in teaching and research.

Our goal as a Department will be to achieve excellence in academic programs and research as part of our mission of creating educational opportunities for non-traditional students and promoting student success. Because of my Hispanic background, I strongly identify with the culture of the El Paso area and I will work very hard in the development of programs and research initiatives, as well as in recruitment and hiring.

I am also delighted to welcome Dr. Son-Young Yi as an Assistant Professor in the Computational Science PhD program as well as the following new lecturers: Snehanashu Saha, Lawrence Swienciki, and UTEP alumni Nada Al-Hanna (BS Math 2007, MS Math 2009), Walter Bales (BS Math 2007, MS Math 2009), Maria Pia Beccar-Varela (MS Statistics 2005), Fan Chen (MS Math 2005), Willie Heredia (BS Math 2005, MS Statistics 2008), and Sandra Villa (BBA Economics 2004, MAT Math 2008).

Most of all, I thank Alumni and Friends for last year's generous contributions. The Gladman Fund helps our most talented undergraduates, the Gregory Fund helps graduate students in statistics, the Miculka Fund (named for former instructor Vladik “Chuck” Miculka) helps Math/Physics undergraduates, and our Excellence Fund supports student travel to meetings and other items not covered by our budget.

— Dr. Christina Mariani

## FACULTY GO ‘THE EXTRA MILE’ WITH STUDENTS

Dr. Joan Staniswalis spent this past spring break driving students between El Paso and San Antonio so they could attend the Eastern North American Region Biometric Society Conference. UTEP attendees included one undergraduate (Angelica Monarrez Rodriquez) and six graduate students (Alexandra Bogdan, Olivia Baciu, Angel Davalos, Anna Sun, Yanlei Peng, Oscar Macedo).

Students enjoyed the setting and ambience of the conference and noted many practical benefits. As Peng remarked, “The conference not only broadly expanded my views in math and statistics, but also in biology, computer science, human health, and even statistical consulting techniques.... it helped me decide to pursue a PhD in statistics, especially in environmental and computational statistics.” Sun added, “It was a good opportunity to get to know the other universities’ statisticians there and also get to know people’s research ideas, papers, etc. At that time, I received an offer from University of Maryland Baltimore County, so at ENAR I also got to meet my UMBC classmates.”

Meanwhile, two weeks before the statistics students’ road trip, Drs. Art Duval and Matthew Winsor took a UTEP vanful of mathematics undergraduates to Albuquerque for the 2009 Southwestern Undergraduate Mathematics Research Conference (SUnMaRC; <http://sunmarc.org>) at the University of New Mexico. UTEP students attending were Melissa Pugh, Jessica Reyes, Angelica Baca, Diana Gomez, Andres Ortiz, and Sergio Barraza. Pugh and Reyes gave a talk on “Huffman coding” and Gomez spoke on “Incommensurability in the Pentagonam.” Students won’t have to travel far to the 2010 SUnMaRC, which will be hosted (for the first time!) at UTEP on March 5-7, 2010.

## STUDENTS WIN ‘BRIDGE TO THE DOCTORATE’ SCHOLARSHIPS!

Congratulations to mathematics graduate students Jennifer Hamlyn (BS Math 2009) and statistics graduate student Angel Davalos (BS Math 2008) who have been selected to receive substantial “Bridge to the Doctorate” scholarships from the National Science Foundation! The scholarships are part of a \$987,000 NSF grant awarded to Drs. Helmut Knaust and Benjamin Flores (Electrical Engineering). The “Bridge to the Doctorate” program is aimed at increasing the number of underrepresented minorities in Science, Technology, Engineering and Mathematics who earn doctoral degrees.

## DUVAL WINS UT REGENTS’ TEACHING AWARD

Professor Art Duval was formally recognized in August at a special dinner in Austin as one of the 73 inaugural winners of the UT System Board of Regents’ Outstanding Teaching Awards for performance, innovative teaching techniques and commitment to undergraduate teaching. None of the nine academic campuses in the UT system except UT-Austin had more winners than UTEP’s nine, and no college at UTEP had more winners than the College of Science’s three.

Beyond the substantial monetary prize (\$30,000), this award was the most rigorous and prestigious of Duval’s career, which had already included teaching excellence awards from the UTEP College of Science, the MAA Southwestern Section, and the Chancellor’s Council. In his substantial nomination portfolio, Duval summarizes his teaching approach as: “I work hard to create a course atmosphere, in and out of the class, that is positive, supportive and friendly, where students are engaged and learn to be unafraid to speak up, take chances, and even to make mistakes. I also set high but attainable standards, and push students to reach those standards, but at the same time provide lots of support to help them do so.”

A hallmark of Duval’s success is that he remains humbly committed to continued self-reflection and growth as a teacher. During his 17 years of teaching (all at UTEP), he has come to incorporate techniques such as writing assignments (with whole-paper rubrics), advance reading questions, “Moore method” inquiry-based learning, and cooperative learning. Duval has also advised Club Zero for many years and provided educational leadership for El Paso through his work with the Center for Effective Teaching and Learning and with numerous local partnerships and grants.

## LESSER TAPPED TO LEAD NEW JOURNAL OF TODOS

Dr. Larry Lesser was named a founding editor of *Teaching for Excellence and Equity in Mathematics*. This refereed journal is published by the national organization TODOS, which specializes for access and excellence in mathematics for all students (especially Hispanic/Latino students), which deeply reflects UTEP’s mission. The role is also a natural continuation of his prior experience as associate editor of several journals and as author of related research papers in *Journal of Statistics Education* and *Statistics Education Research Journal*. The first issue of *TEEM* is expected to be published this fall.

**MAXIMA Staff**

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# ALUMNI NEWS

**Candelario Barragan** (BA Math 1996), a math teacher at El Dorado HS, was honored on May 26 by the Texas House and Senate for being one of four Texas teachers to receive the Milken Family Foundation National Educator Award in 2007.

**Dr. David Dampier** (BS Math 1984) is Associate Professor and Director of the National Forensics Training Center at Mississippi State University. The new program provides digital forensics workforce training to disabled and transitioning veterans through a National Science Foundation grant.

**Casey O'Dwyer** (MAT Math 2009) was the Graduate Student Marshal at Spring 2009 Commencement.

**Yanlei Peng** (MS Statistics 2009) won first prize in the overall poster category at the 2009 UTEP SACNAS Research Expo for her poster (with J. Staniswalis, S. Grineski, & T. Gill): "A retrospective study of dust storms and asthma hospitalizations in El Paso using a case-crossover analysis."

**Robert C. Trejo** (BS Math 2005, MAT Math 2007) is teaching mathematics at Valle Verde Early College HS for YISD and is an adjunct instructor at EPCC Valle Verde Campus. He was recently named Teacher of the Year for the Valle Verde ECHS Campus and one of the "Top 10 Teachers of the Year" for Ysleta ISD.

## Alumni Data Update Form Department of Mathematical Sciences

Please return this form or visit <http://www.math.utep.edu/alumni> so we can update our records!

Name: \_\_\_\_\_

Maiden Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Business Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Degree(s) and Major: \_\_\_\_\_

Year(s): \_\_\_\_\_

Employer: \_\_\_\_\_

Position/Title: \_\_\_\_\_

Let us know what you have been up to  
(to be included in the Math Department newsletter or website):

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Yes, I want to support the Department of Mathematical Sciences!

Enclosed is my gift in the amount of \$\_\_\_\_\_ for:

\_\_\_ Mathematical Sciences Excellence Fund

\_\_\_ G. G. Gregory Scholarship Fund

\_\_\_ C. H. Gladman Scholarship Fund

\_\_\_ Prof. Vladik A. Miculka Scholarship

or you may use: \_\_\_ Mastercard \_\_\_ Visa \_\_\_ Discover

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**Please return to:**

The University of Texas at El Paso  
Department of Mathematical Sciences  
El Paso, Texas 79968-0514

# UTEP COLLABORATES WITH EPCC ON GRANT



Drs. Emil Schwab and Helmut Knaust, along with Gabriela Schwab at El Paso Community College, are one year into a 3-year \$600,000 grant from the U.S. Department of Education's Minority

Science and Engineering Improvement Program (MSEIP), "Cross-Institutional Implementation of Supplemental Instruction — EPCC-UTEP Cooperative Project". Supplemental Instruction implements collaborative active-learning strategies, targets high-risk courses, and can increase student performance, student retention and student satisfaction with the course.

Dr. Emil Schwab had directed a previous grant implementing Supplemental Instruction in Calculus courses at UTEP. The current grant brings Supplemental Instruction to EPCC's two pre-calculus courses. Students in these courses now spend

one hour a week in small sections of 10-12 students each, led by UTEP graduate students, most of whom already served as peer leaders while undergraduates at UTEP.

The UTEP graduate students who are serving as SI leaders are Olivia Baciú, Persis Beaven (BS Math 2009), Alexandra Bogdan, Tami Dashley (BS Math 2008), Oscar Macedo (BS Math 2008), Melissa Pugh (BS Math 2008), and Jessica Reyes (BS Math 2008). These SI leaders received extensive training to help their EPCC students learn. They attend classes with their students, take class notes, hold office hours, and conduct the weekly SI sessions. The sessions are dynamic, interactive, argumentative, and engaging. The SI leaders do not act as lecturers or teachers in SI sessions, but instead facilitate and encourage the student groups to understand the class material and solve mathematical problems.



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