Departmental News & Events
Fall 2013

Visiting Scholar: Dr. Dorin Andrica

This Fall, Dr. Dorin Andrica will be lecturing as the 13th Mildred Miller Fort Foundation Visiting Scholar in European Studies. Dr. Andrica has published dozens of books and journal articles, with research interests in Number Theory, Approximations Theory, and Critical Point Theory. He is well known for his Andrica Conjecture about the gap between consecutive primes. Joining us from the Babeş-Bolyai University, Cluj, Romania where he is a full professor in the faculty of Mathematics and Computer Science, Dr. Andrica has served as a visiting scholar at notable universities around the world including the University of Ancona (Italy), the University of Heidelberg (Germany), the University of Genoble (France), the University of Texas at Dallas (USA), and the King Saud University (Saudi Arabia).

Student Highlights

Jeff Patterson co-authored with Dr. Ionascu, Primes of the form $a^2+qb^2$, which will appear in Studia Universitatis Babes, Bolyai Mathematica, 2013

Kerri Edgar, Jacob Hand & Stevan Rodney Parks received scholarships totaling $36,800 for 2013-14 through the CRAFT-STEM program, under the National Science Foundation's Robert Noyce Teacher Scholarship Program (NSF #1136356)

Harrison Sharitt & Kerri Edgar were selected for $4,500 CRAFT-STEM Internships and worked with the Georgia STEM Honors Camp, POWER Math and PRIME Math Camps.

Stevan Rodney Parks & Kerri Edgar were selected as Peer Leaders in the CSU STEM Initiative Program

New Faculty

Our department welcomes two new faculty members for Fall 2013:

Dr. Guihong Fan has research interests in mathematical biology, population dynamics, mathematical modeling in ecology, epidemiology, &

Dr. Houbin Lewis Fang has research interests in early childhood education, technology in mathematics teaching & learning

A fond farewell!

Congratulations to Dr. Renjin Tu on her retirement. She has been with CSU since 1994, enlightening students of statistics and cooking amazing treats for the department. Your wisdom & egg rolls will be missed!

Alumni News

Pedro Perez-Nagera (2012) was admitted, on a statesmanship, to the graduate program in the Department of Mathematical Sciences at University of Texas, Dallas

Richard "Keith" Roop-Eckart (2012) was awarded a scholarship to study Number Theory in his doctoral program at University of Georgia, Athens

96th Percentile on the Major Fields Assessment for 2011 Graduates!
Highlights & Achievements

**Tournaments & Contests**

The Applied Math & Statistics Center held the first Calculus Contest, Friday April 19, 2013 as part of the Math Day 2013. Three cash prizes ($100, $60, and $40) will be awarded to the top winners in the categories of Pre-Calculus, Calculus I and Calculus II.

In addition, we hosted 115 high school students from eleven schools at the CSU Regional Mathematics Tournament.

**Philosophy Highlights**

The department congratulates Dr. Markus Weidler in his new position as full time lecturer in our philosophy program. His research, including a recent article entitled, “Divine Hiddenness and Discrimination: A Philosophical Dilemma,” will enhance courses offered in our philosophy minor and future plans for a four year degree. Our faculty members are currently working with a cross-disciplinary team to explore an expanded curriculum that may be available as soon as Fall 2014. To learn more about our philosophy program or philosophy club meetings go to:

http://phil.columbusstate.edu

**2013 STEM Honors Summer Camp**

Fun & FUNDED!

Twenty four of the top math and science high school students participated in a two-week residential summer camp exploring Science, Technology, Engineering & Mathematics (STEM). **Dr. Tim Howard**, mathematics professor and director of the Math & Science Learning Center, coordinated the camp with Dr. Kim Shaw (physics). Students engaged in activities and research projects in all disciplines, including work in geometric image processing led by **Dr. Ben Kamau**.

The camps is funded in part by the $1 million Robert M. Noyce Grant (National Science Foundation #1136356), awarded to **Dr. Tim Howard** (PI), Dr. Kim Shaw, Dr. Deborah Gober, and **Dr. Cindy Ticknor** (Co-PIs). The funding for the camp was supported with an additional $8000 from local businesses including Pratt& Whitney, Don Jones Construction, Geotechnical and Environmental Consultants, Society for American Military Engineers, Cott Beverages, Path Tech, and St. Francis Hospital.

The Robert M. Noyce Grant also supports $10,000 scholarships for students pursuing teacher certification in math and science. For more information, visit the UTeach website at:

http://uteach.columbusstate.edu
Collectively, the department published eighteen peer-reviewed articles last year in mathematics, philosophy, statistics and the scholarship of teaching and learning. The research projects included Dr. Ionascu’s work with tessellations and regular octahedrons and Dr. Nguyen’s development of discrete models for biological populations. In applied statistics, Dr. Bhandary researched global tests of p-values used in biological data mining and resampling approaches used in intraclass correlation coefficients, while Dr. Weidler produced several works including, Terrorism & Eschatology, theological beliefs concerning the final events precipitating the end of the world. Additionally, Dr. Howard and Dr. Ticknor co-authored a paper on the effectiveness of the Peer Instruction Leader project underway at the Math & Science Learning Center.

2012-13 Faculty Research Publications


Ionascu E., Obando R., (2012) “Cubes in (0,1,...,n)^3”. Integers, 12A (John Selfridge Memorial Issue), Art. A9


Innovations in Research & Instruction

Congratulations to Dr. Eugen Ionascu and Dr. Ben Kamau on receiving $18,000 in grant funding. Dr. Ionascu applied for technology fee grants to upgrade instructional computers, and Dr. Kamau developed a supplemental instruction project that is part of the university's initiative to improve student retention, progression, and graduation rates. Dr. Inessa Levi has published a set of Excel worksheets as a supplement for the text we use for mathematical modeling, Functions and Change: A Modeling Approach to College Algebra by Craduer, Evans and Noell. This supplement is available to instructors as a 2.2Mb Zip file on the publisher’s (Cengage) website.


**2012-13 Conference Presentations**


Ionascu, E. (Colloquium). Half domination arrangements in regular and semi-regular tessellation type, Valdosta State University, (April 6, 2012)

Ionascu, E. (Colloquium). Ehrahrt polynomial for lattice platonic solids, University of West Georgia, (October 27, 2011)


Nguyen, Van Minh Invited talk at the Asian Conference of Mathematics 2013 (June 30-July 4, 2013, Busan, South Korea)


Shaw, K., Ticknor, C., & Howard, T. (Presentation). Developing a STEM Teacher Pipeline, Georgia Scholarship of STEM Teaching & Learning Conference, Statesboro, Georgia (March 8, 2013).

Ticknor, C., Howard, T., & Shaw, K. (Poster Presentation). STEM and Branches: Update on the Columbus State University STEM-II Initiative. STEM Scholarship of Teaching & Learning Conference, Statesboro, Georgia (March 8, 2013).