

*Stright*

**SPRING  
2009**

*Lines*

**IUP Mathematics Department Alumni Newsletter**

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With Dr. Alarcón on sabbatical, it is once more to the bridge for me. We had a very busy and productive semester here in Stright Hall. Let's start with curriculum, curriculum, curriculum. New Pennsylvania state regulations for teacher certification required yet another modification of the secondary mathematics education program. This revision allowed us to meet the requirements in special education and English language learning. New state certification rules also have schools scrambling to create middle school certification program. Luckily for us, we have a long-standing elementary/middle school mathematics program that had its genesis with Bill Hennemann in the 1960's. We were able to get a middle school mathematics program through the curriculum process. This will be IUP's first middle school certification program when students enter in fall 2009.

The applied mathematics program was also revised. We would like to see more students take advantage of this program, which, we hope, will better prepare them for work in business and industry. We will still offer our strong program in mathematics for students who are considering graduate school. The new applied mathematics program features a new course in computational mathematics and a required internship or senior project. The new program also requires fifteen credits in a complementary field.

In other news, IUP Preservice Teachers of Mathematics (IUP-PTM) was officially recognized as an affiliate of the National Council of Teachers of Mathematics. We hosted another Teachers Teaching with Technology (T<sup>3</sup>) Conference in March. Faculty have been productive in scholarship. Many faculty attended the Annual Joint Meetings of the AMS and MAA

and the NCTM National Meeting, both held in Washington, DC.

We were able to complete searches to fill two positions. We hired Daniel Radelet and Alfred Dahma, both from the University of Pittsburgh. Both Dan and Alf have worked for us before, so I presume they know what they are getting into! Unfortunately, we did lose Daniel Look, who resigned to take a position at St. Lawrence University in Canton, NY.

Much of the "water cooler talk" around the department concerned budget problems and the Liberal Studies revision. IUP has been forced to significantly cut its budget, and Academic Affairs is not immune from the cuts. Our department budget will be cut by 10% next year, faculty searches have been severely restricted, and the Provost will be looking at programs to determine the weak and the strong, and whatever budgetary issues that brings with it. A new Liberal Studies program has passed the University Senate. The new features include a first year seminar, a cultural studies requirement, an oral or technical communication requirement, and information literacy, quantitative reasoning, and scientific literacy across the curriculum components. All of our current courses will need to be matched up with these new requirements, so next year we will be back to curriculum, curriculum, curriculum.

Remember, you can keep in touch with all department news on our web site at <http://www.iup.edu/math/news/default.aspx>.

Gary Stoudt

## About our students

### Scholarships Presented at Annual Scholarship Banquet

The Mathematics Department awarded numerous scholarships for the academic year at a banquet on April 17.



Scholarship awardees from left to right: Jessica Schnebel, Annalese Weldy, Kaitlyn Yeomans, Tiffany Cornman, Amelia Uecker, Antonio Ayllon, Rachel Holuta, and Julie Kardell (absent: Sarah Romasco)

The *James A. Boytim, Ed.D. Scholarship* in Mathematics is awarded to a senior in the Mathematics Department who is of good character and who demonstrates the promise of future success in the education profession. This year's winner was **Annalese Weldy** from Canonsburg, PA. Annalese is a secondary mathematics education major. She was joined at the banquet by her school principal, Susan Stonebraker, one of her inspirations to study to become a teacher.

**Kaitlyn Yeomans** was the recipient of the *Dr. Willard W. Hennemann, Jr., Memorial Scholarship*, awarded to a deserving and worthy undergraduate or graduate student with a strong commitment in the field of mathematics education at the elementary or middle school level. Kaitlyn is an elementary education major with a mathematics concentration and is from Creekside, PA.

This year's *Tony and Carole Kuczinski Memorial Scholarship* winner was **Tiffany Cornman**, a secondary mathematics education major from Home, PA. Tiffany credits the teachers she had as a student for her decision to pursue mathematics education.

The *Arthur G. Morrell Memorial Scholarship* is given to a mathematics major completing the sophomore or junior year at IUP who best reflects the character and interests of Captain Arthur G. Morrell. The scholarship honors Art Morrell, a 1975 IUP graduate in mathematics education, captain of the football team, and U.S. Marine pilot who died on a training flight. Art's father Wally was an IUP mathematics faculty member, now retired. This year, two scholarships were awarded, to **Antonio Ayllon** and **Sarah Romasco**.

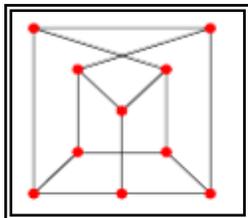
Antonio is an economics/mathematics major from Avondale, PA who is originally from Mexico. Antonio has very quickly mastered spoken and written English and is very active in extracurricular activities.

Sarah is a secondary mathematics education major from Freedom, PA and is the latest in our tradition of

(continued on page 4)

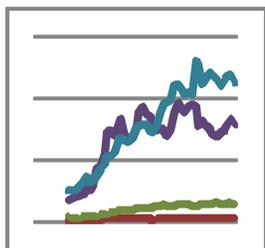
## About our students (continued)

### Math Department Student Presentations



A number of Mathematics Department students presented papers over the past semester. They included:

- **Xinwei Luo** (international student): “The Study of Short Interest Ratio of Stock with Stochastic Volatility: A Naked Short Sale Restriction in the Stock Market to Attain a Balance”  
- *Nebraska Conference for Undergraduate Women in Mathematics*  
- *IUP Fourth Annual Undergraduate Scholars Forum*
- **Hayley Markoff** (Secondary Math Ed. major): “Women in Mathematics: Only a Man’s World?”  
- *IUP Fourth Annual Undergraduate Scholars Forum*
- **Timothy Muller**: (Applied Mathematics major): “Maximally Non-Matching Covered Graphs”  
- *Joint Mathematics Meeting, Washington, DC*
- **Antonio Ayllon**: (Mathematics/Economics major): “A Cross-Section Analysis of Variation in Crime Rates in the Counties of Pennsylvania”  
- *IUP Fourth Annual Undergraduate Scholars Forum*
- **Lauren Abbott**: (Mathematics Major): “Optical Properties of Semiconductor Materials” (Poster)  
- *Women in Mathematics, Sciences, and Technology, College of NSM, IUP*
- **Dan Ross** (graduate student in the M.S. in Applied Mathematics program): “Programming a Computer for Playing Reversi”  
- *Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America*

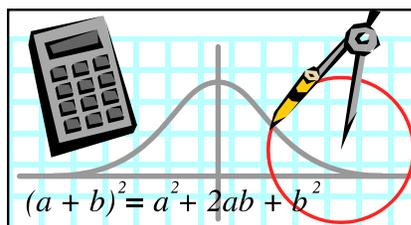
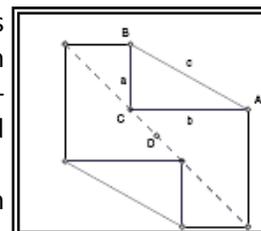


- **Katie Bungo** (graduate student in the M.Ed. In Elementary and Middle School Mathematics program): Co-presented “If the Perimeter Increases, Does the Area Increase, Too?” with **Dr. Larry Feldman**  
- *NCTM Annual Meeting in Washington DC*



At the *Teachers Teaching with Technology Regional Conference*, held at IUP on March 6 -7, several math department students also presented sessions. They included:

- **Jeffery Papcun** and **Mary Ann Wheeler** (graduate students in the M. Ed. in Secondary Mathematics program) “Promethean Boards in the Mathematics Classroom”
- **Jessica Davey** (graduate student in the M. Ed. in Elementary and Middle School Mathematics program): “A Lesson in Pythagorean Theorem with the Geometer’s Sketchpad (joint presentation with **Dr. Yong Colen**) and “TI-73 Calculator Activities and Lessons”
- **Joe Culler**, **Jason Myers**, (both graduate students in the M. Ed. in Secondary Mathematics program) and **Rebecca Frazier** (graduate student in the M. Ed. in Elementary and Middle School Mathematics program) : “Teachers’ Perspective on Foundations for Success: The Final Report of the National Mathematics Advisory Panel”



Congratulations to these students who represented the department very well in their scholarly endeavors.

#### Acknowledgement:

Travel expenses for several student presentations were paid through the Elko Fund established by **David Elko**, B.S. '76.

## Department hosts regional technology conference

The Mathematics Department hosted a regional *Teachers Teaching with Technology™ (T<sup>3</sup>)* Conference on Friday, March 6 and Saturday, March 7, 2009. The conference was open to all Kindergarten to university educators interested in using educational technology to enhance teaching and learning in Mathematics and Science. The conference's primary sponsor was Texas Instruments.

The goal of this T<sup>3</sup> Conference was to provide quality professional development, empowering educators to be successful in the classroom with appropriate use of technology.

Over 20 sessions and workshops were presented over the 2 days, including those that addressed the newest Texas Instruments calculator (the TI-Nspire, which has a computer algebra system); the TI-Navigator; Geometer's Sketchpad; and other sessions that engaged teachers in hands on activities that could be used in their classrooms.

Dr. Yong Colen chaired the committee that organized the conference. Other faculty who served on the committee were Dr. Channa Navaratna, Dr. Mavis Pararai, Dr. Edel Reilly, and Dr. Mary Lou Metz.

## Scholarships Presented at Annual Scholarship Banquet (continued)

scholar athletes. Sarah a first team member of the **ESPN the Magazine** Academic All-District II squad for women's soccer.

The second *James R. Myers Scholarship* was awarded to **Rachel Holuta** from Indiana, PA. Rachel is an elementary education major with a mathematics concentration. Once again we were honored to have Jim's family present at the awards banquet.

The *Mildred M. Reigh Scholarship* honors the memory of Mildred M. Reigh, professor of Mathematics at Indiana University of Pennsylvania from 1963 to 1981. Miss Reigh was a leader in Mathematics Education both in the state of Pennsylvania and in her work with the National Council of Teachers of Mathematics. **Julie Kardell** of Indiana, PA is this year's winner. Julie teaches at the Seeds of Faith Christian Academy in Indiana and is looking to finish her degree in secondary mathematics education.

This year there were two winners of the *Rebecca A. Stoudt Memorial Scholarship for Mathematics*: **Jessica Schnebel** and **Amelia Uecker**. Jessica is a secondary mathematics education major from Pittsburgh who is active in dance and the Robert E. Cook Honors College. Amelia is another Honors College student majoring in Mathematics and Physics. Amelia is from Mason, Ohio and active in Bella Voce, a choral group that performs at local nursing homes. Amelia is also a member of the Robert E. Cook Honors College.

Each of these students represents the best we have to offer in the Mathematics Department. We take the stewardship of these scholarships very seriously, and we are sure that these deserving students will bring honor to the department.



## About our alumni

### Alumni Receive Awards

- **Richard Ferguson**, B.S. '62 was named a 2009 IUP distinguished alumnus for advancing the field of education by helping young people achieve education and workplace success through his work as CEO and chairman of the board of ACT, Inc.

Two recent Mathematics Department graduates have won New Teacher of the Year Awards for their work in Spotsylvania County (Virginia) Schools.

- **Megan Sheeler** won the New Teacher Award at Thornburg Middle School. Megan graduated in May 2008 with a B.S. Ed. in Mathematics Education and currently teaches eighth grade mathematics.
- **Derek Stiffler** won the New Teacher Award at Post Oak Middle School and subsequently won the New Teacher Award for the entire Spotsylvania County School system. Derek is also a May 2008 graduate of the B.S. Ed. in Mathematics Education program. Derek teaches seventh grade mathematics at Post Oak.

Congratulations to Richard, Megan, and Derek and all of our graduates who do the important work related to the mathematics education of America's youth.

### We get mail...



Dear Math Department,

It has been many years since my IUP experience, but I have many fond memories of the math department. I finished my BS of Ed in 1977 and my MS in 1980, so I have not spent time in Stright for a long time.

I really appreciate your efforts with the alumni newsletter, *Stright Lines*. It certainly keeps me up to date and has helped me to renew old acquaintances. Many thanks for your work and much appreciation for your continued perseverance.

Thanks again,

**Debbie Snyder**, B.S. Ed. '77, M.S. '80

Greetings,

After 13 years in the classroom as a math teacher, (5 middle school & 9 high school) I now represent teachers and educational support professionals at the negotiations table.

**Brian Furry**, B.S. Ed., '93

I relocated in January 2008 to Scott Air Force Base, in the Illinois suburbs of St. Louis, for a two-year 'on-site researchers' position at Headquarters Air Mobility Command.

Following this fixed-term position, I'll return to a RAND office where I'll continue in my RAND research (I started working at RAND in 2002, immediately after earning my Ph. D. at Penn State.)

Best Wishes,

**Ron McGarvey**, B.S. Applied Math, '97

Hello!

My secondary Math Ed. Degree served me very well! I went on to get my principal's papers and masters.

Without the great undergrad education I received at IUP, I do not feel I would be where I am today. Thanks much!

**Karin (Rabenold) Coiner**, B.S. Ed., '99

### Connecting with our alumni

We are continuing to explore additional ways of keeping in touch with you and possibly helping you get in touch with your former classmates. Some things that have been discussed include starting an IUP Math Department Alumni website; constructing a 'Face Book' site; developing an on-line community to support beginning teachers during their first few years of teaching; collecting a set of Career Profiles from alumni which could be posted on the department website and used as a reference for math department students who are asking, "What can I do with a degree in math?"; sponsoring activities during IUP Homecoming; and, sponsoring a Career Day where alumni could speak with students about how their careers involve mathematics or require a background in mathematics.

Any suggestions, ideas, or feed back would be greatly appreciated. You can send your comments to: Gary Stoudt, [gsstoudt@iup.edu](mailto:gsstoudt@iup.edu), Yu-Ju Kuo, [yjkuo@iup.edu](mailto:yjkuo@iup.edu), or Mary Lou Metz, [mlmetz@iup.edu](mailto:mlmetz@iup.edu)

We look forward to hearing from you!

## About our Faculty

### Math department faculty presentations and publications

#### PRESENTATIONS

Over the past semester, many members of the IUP mathematics department presented papers or sessions at local, state, national and international conferences.

**Dr. Francisco Alarcón** gave a presentation on Leonhard Euler and the Basel Problem to faculty and students at Universidad del Valle in Guatemala City in May.

**Dr. Channa Navaratna** presented "Radio-telemetry under Malfunctioning Receivers" at the American Mathematical Society/Mathematics Association of America Joint Mathematics Meetings in Washington, D.C. He also presented "Non-linear Filtering with Mobile/Fixed Antennas" at the February Joint Meeting of the Florida Section of the MAA and the Florida Two-Year College Mathematics Association.

**Dr. John Lattanzio** presented "Partition Types" at the SSHEMA spring conference at Mansfield University of Pennsylvania.

Several faculty presented Mathematics Department Colloquia during the spring semester. The faculty member and title of presentation include:

**Dr. John Lattanzio:** "Partition Types"

**Dr. Kimberly Burch** and **Dr. Yu-Ju Kuo:** "Traditional vs. On-line Homework in College Algebra"

**Dr. Mary Lou Metz:** "Mathematical Knowledge + X = Mathematical Knowledge for Teaching: Finding

the solution to Preparing Effective Teachers of Mathematics"

Several faculty members also presented sessions at the NCTM annual conference in Washington, DC in April:

**Dr. Larry Feldman** presented "If the Perimeter Increases, Does the Area Increase, Too?"

**Dr. Edel Reilly** presented "Project Math Lit: Using Children's Literature to Equalize Mathematics Pedagogy."

**Dr. Brian Sharp** and **Dr. Janet Walker** presented "Bees, Bats, Bugs and Connections to the Elementary Classroom."

#### PUBLICATIONS

**Dr. John Henry Steelman** had his problem solution "Counting Permutations With Two Displacement Values" published in the May issue of *The American Mathematical Monthly*.

**Dr. Edel Reilly's** article "Educational Re-Visions: Integrating Visual Literacy Instruction Across the Disciplines" has been published in *Engaging Creativity and Critical Thinking*, a peer-reviewed book of selected readings by the International Visual Literacy Association. In addition, her article, "Parental Involvement Through Better Communication" has been included in the Middle Level Education Research Annual 2009 *Connecting with Parents and Families* published by the National Middle School Association.

### In memoriam

Professor Emeritus **Dr. Donald Duncan** passed away after a long illness on January 17 at the age of 74. Don began his career at IUP in 1968 and retired in 1996. He was the Mathematics Department's coordinator of student teaching and served the department and university in many other capacities.

Don and his wife, Merrily, shared a common interest in exhibiting and showing purebred dogs. He was very proud of his Shetland sheepdog Quill, who was ranked No. 1 in the nation. Don was also active in the Laurel Highlands Kennel Association Board of Directors.

If you have memories of Don, either as a colleague or a teacher, we would love to hear them. Send them along to the editor and we will share them in a later issue.

## IUP Preservice Mathematics Teachers organization receives national affiliation



Accepting a Certificate of Affiliation with NCTM are (left to right): Tori Groves (sec. math ed.), Emily Golden (elem. ed.), Jennifer Hunter (sec. math ed.), Dr. Mary Lou Metz (advisor), and Alyssa Aiello (elem. ed.)

The Indiana University of PA Preservice Teachers of Mathematics (IUP-PTM) received national affiliation with the National Council of Teachers of Mathematics at the NCTM Delegate Assembly in April.

One of only 2 students groups in the state of Pennsylvania and 20 student groups in 12 states that are affiliated with NCTM, the organization was formed in the fall of 2008 and includes 43 secondary math ed. and elementary ed. majors interested in developing teaching and leadership skills and in learning and sharing new ideas for teaching mathematics. Highlights of the group's activities include sponsoring " $\pi + .02$  Day" (March 16) in the Math Department, a student presentation on "Mathematics and Paper Folding", and a service project involving making over 200 manipulative kits for children in an elementary school in San Diego.

### Acknowledgement:

Travel expenses for students were paid through the Elko Fund established by **David Elko**, B.S. '76.

## Nineteen students receive degrees in mathematics

Nineteen students were awarded degrees in an area of mathematics at commencement ceremonies on Sunday, May 3. The students and their hometowns, by degree, include:

### B.S. Ed. Secondary Mathematics Education

Tori L. Groves (DuBois)  
Jennifer L. Hunter (Bellwood)  
Jeffrey Daniel Krznaric (West Mifflin)  
Jonathan R. Lunieski (Irwin)  
Drew Tyson Moyer (Hollidaysburg)  
Erin Bethel Porter (Pittsburgh)  
Allison L. Yorks (Camp Hill)

### B.S. Applied Mathematics

Christopher Lynn DeLeo (Lake City)  
Timothy Brannon Muller (Doylestown)  
Joseph Damian Veltri, Jr. (New Kensington)  
Colin Patrick Zinda (Plover, WI)

### B.S. Mathematics

Lauren Jeanine Abbott (North Potomac, MD)  
Adam Craig Moser (Kittanning)

### M.Ed. Mathematics

Jason A. Myers (Mount Pleasant)  
Traci Renee Stevens (Indiana)

### M.Ed. Elementary and Middle School Mathematics Ed.

Lisa Marie Thompson (Ford City)

### M.S. Applied Mathematics

Melissa A. Bagi (Indiana)  
Jason A. Smith (Punxsutawney)  
Tao Sun (Indiana)

Congratulations to these students who are now the newest members of the IUP Mathematics Department Alumni!



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We're on the Web!

[www.iup.edu/math](http://www.iup.edu/math)

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