



## Special points of interest:

- The Math Dept. hosted the annual KATM conference in October 2012.
- Mr. J. Bryan Sperry has published an autobiography, available on Amazon.
- Dr. Hazel Coltharp wins the College Excellence in Teaching Award.
- The number of math majors is currently 61 undergraduate and 15 graduate.

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## Pittsburg State University College of Arts and Sciences

### News from the Chair

The department has experienced a couple of losses over the last year. The department was very saddened by the loss of a retired professor, Dr. Don Hight, who passed away on November 13, 2012. I still remember having class from Dr. Hight and the inspiring way in which he taught. He always had a variety of tricks he was willing to share in order to help his students remember various techniques. Don will be missed by all who knew him. He is survived by his wife Betty.

Our other loss is a little more bittersweet. Dr. Leah Childers has taken a job at Benedictine College in Atchison, Kansas. We are saddened by losing her from the department but are excited for her and her family as they move into a new chapter in their life. She and her husband, Dr. Chris Childers, both found jobs at Benedictine so they are very happy to be able to



work at the same place. In addition, the Drs. Childers welcomed their daughter, Elyse, into the world on June 26, 2013. It has been a summer of transition for the Childers family.

Dr. Childers had such a positive impact on the department during her short tenure with us. She inspired numerous students to step out of their comfort zone and push themselves to the next level in mathematics. She will be missed in the department, but we wish them all the best. Her departure also left us without an editor for this newsletter. The department is very grateful to Dr. Cynthia

Woodburn for volunteering for this role.

Other than that, things have been pretty quiet in the department. Dr. Winters was promoted as the Associate Dean of Arts and Sciences and he and Dr. Woodburn have been named University Professors. In addition, Dr. Karla Childs was promoted to Associate Professor. I had been the acting chair of Physics for the last three years, but was relieved of that extra duty this past summer. It has been great being back to leading a single department this fall.

I hope you enjoy the rest of this newsletter and reading about the happenings within the department. If you have any news about happenings in your life, please feel free to let us know and if you are ever back on campus please drop in to pay us a visit. We would love to hear what's new in your life.

### In Memory

Professor Donald W. Hight passed away on November 13, 2012. Don came to the Kansas State College at Pittsburg, now Pittsburg State University, as a student in 1949 on a football scholarship. He earned his Bachelor of Science in Education from PSU in 1953 and joined the faculty in 1962, after completing a doctorate at Oklahoma State University. He

continued as a mathematics professor at Pittsburg State until his retirement in 1994.

Dr. Hight, with his great smile and sense of humor, touched the lives of many students and colleagues, and inspired many future teachers. The PSU Mathematics Department was blessed to have Don as a valued faculty member and will miss him.





Join us on  
Facebook:

Pitt State  
(Kansas)  
Math Alumni

**GET  
INVOLVED**

Want to help students  
attend conferences?  
Contact Dr. Tim Flood  
([tflood@pittstate.edu](mailto:tflood@pittstate.edu))  
for information about  
supporting student  
travel.

## Math Dept Hosts KATM 2012

The PSU Math Department hosted the annual Kansas Association of Teachers of Mathematics (KATM) annual conference on October 26, 2012. With it being 2012, the conference logo (pictured on the right) was related to one of the Maya calendrical cycles, the Tzolkin.

KATM is an affiliate of the National Council of Teachers of Mathematics and has members from across the state of Kansas. PSU last hosted the annual conference in 2002.

The 2012 meeting hosted by Pitt State had 277 registrants, including several PSU mathematics alumni. Participants in the conference had the opportunity to hear presentations as well as to view products, discuss needs and interact with

15 exhibitors. Our gold sponsor, Renaissance Learning, provided the continental breakfast for the conference. Lakeshore provided 20 copies of interactive board software which were distributed to appropriate level attendees.

Exhibitors at the conference were ALEKS Corporation, Common Sense Math, Engaging Technologies, ETA/Hand2Mind, GeoMotion Group, Houghton Mifflin Harcourt, Kansas Council for Economic Education, Kansas Association of American Educators, Landeau & Associates (CORD/William H. Sadlier), Math Teachers Press, McGraw-Hill Education, LakeShore, Pearson, Renaissance Learning, and Texas Instruments.

All of the exhibitors had booth



locations to demonstrate their educational products. In addition, some of the exhibitors had representatives who presented during the sessions. Karla Brown from Common Sense Math, Ellen Woodley from GeoMotion Group, and Andrew Scott from Math Teachers Press held sessions which participants enjoyed.

## Faculty-Student Softball Game Returns

Spring 2013 PSU Math  
Faculty-Student Softball  
Game

(Softball photos courtesy of  
Dr. Ananda Jayawardhana)



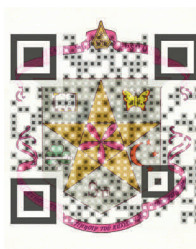
## Math Major Rachael Sachs Wins Top Paper Award at KME National

PSU is home to the Kansas Alpha Chapter of the national mathematics honor society, Kappa Mu Epsilon. The tradition of Kansas Alpha being well-represented at the national level continued with Rachael Sachs winning one of the top paper awards at the 2013 KME National Convention. The meeting was hosted by Washburn University in Topeka. Rachael was accompanied by two other students, a former student, and two faculty members (Leah Childers and Cynthia Woodburn).

In March of 2012, there was a Regional KME Convention in Springfield, MO. Dr. Flood and Dr. Woodburn accompanied eight students to this meeting, and one PSU student, Ashley Reavis, gave a presentation.

The KME tradition began at PSU when Kansas Alpha was the third chapter to be installed in KME. Retired math faculty, Dr. Harold Thomas, served as KME National Historian, Vice-President, and President, and won the prestigious KME George Mach Distinguished Service Award in 1997. Cynthia Woodburn is currently on the National Executive Council and is midway through serving her second term as National Treasurer.

Kansas Alpha has a Facebook group called "Pitt State KME Math Honor Society" where information about the monthly local meetings and other events is posted. Feel free to send a Facebook request to join the group.



Rachael Sachs, second from left, receiving one of the top paper awards at the 2013 KME National Convention.

## KSMAA Meetings

PSU mathematics faculty continue to be active in the Kansas Section of the Mathematical Association of America (KSMAA). Dr. Tim Flood currently holds two offices: Historian and Coordinator of Section Liaisons, while Dr. Leah Childers is Secretary and Dr. Cynthia Woodburn is Section Governor and Public Information Coordinator. PSU Math alumnus DeeAnn VanLuyck of Fort Scott Community College is Vice Chair Elect and will be hosting the 2015 KSMAA meeting.

The 2012 KSMAA section meeting was April 13 and 14, 2012 at Kansas State University in Manhattan, KS. Keynote speakers were George Andrews (Penn State, former AMS president 2009-2010) and Estela Gavosto (KU). Several PSU faculty members and six students attended the meeting. Two teams of undergraduates represented PSU during the undergraduate student competition, and one student, Aisha Ford, gave a presentation on *Mario Meets Linear Algebra*, which won a top paper award.

The 2013 KSMAA section meeting was joint with the Missouri, Iowa, and Nebraska-SE South Dakota sections. It was hosted by Northwest Missouri State University in Maryville, MO on April 19 and 20, 2013. PSU again was well represented with several facul-

ty and students attending.

### 2012 Faculty Presentations:

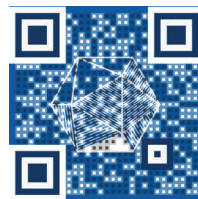
- ◇ Ananda Jayawardhana, *Checking for Normality in Elementary Statistics Classes*
- ◇ Leah Childers, *Surfaces and their symmetries: an introduction to mapping class groups*
- ◇ Yaping Liu, *The Columbo Puzzles and Its Extensions*
- ◇ Cynthia Woodburn, *2012 and Mayan Mathematics*
- ◇ Tim Flood, *The Kansas Section: Were We First?*

### 2013 Faculty Presentation:

- ◇ Cynthia Woodburn, *Mathematics in Bologna*

### 2013 Student Presentations:

- ◇ Lara Ismert, *An Inequality of Acute Triangles*
- ◇ Ashley Reavis, *Modeling Hyperbolic Geometry through Crochet*



Graduate student Ahmad Alalyani enjoying a presentation at KSMAA 2013.



Student Aisha Ford giving her top paper presentation at KSMAA 2012.

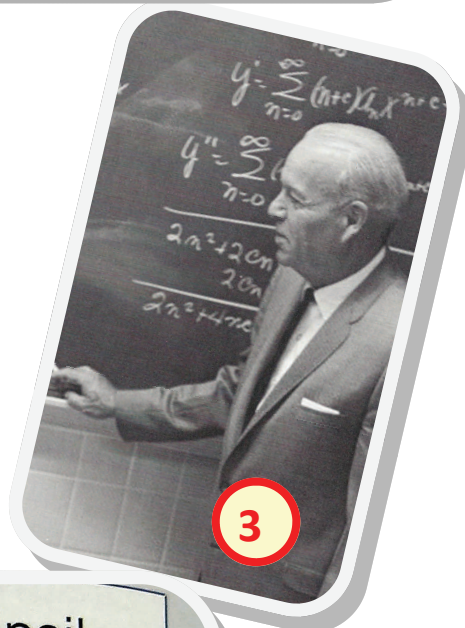


## Pre-Images

The next two pages contain a collection of pictures from the “archives”. How many can you name and date? (Answers at bottom of next page.)

### Thanks for the Support!

A big thanks for donations made to PSU in support of the Math Department and its programs. These generous gifts have been used to support travel by students and faculty to conferences, as well as student scholarships. The past year we awarded 59 undergraduate scholarships for a total of \$39,550 and 29 graduate scholarships for a total of \$32,001.





5



6



Picture 1: Dr. Elwyn Davis' recognition dinner when retiring as chair, May 2003, (from left to right) Barbara & Forrest Coltharp, Ed & Terry Martin, Manel & Ananda Jayawardhana, Jean & Bobby Winters, Cynthia Woodburn, Suzanne & Bill Lindsay, Glenn & Hazel Coltharp, George Kaemmerling, Karen & Elwyn Davis, Tim Flood, Gary McGrath, Reita Sperry, Chris Flood, Bryan Sperry, Fran McGrath, Alice Thomas, Helen Kriegsmann, Don & Betty Hight, Betty Haggard, Yaping Liu

Picture 2: Don Hight and Elwyn Davis in the 2nd floor hallway of Yates, finals week 2011

Picture 3: Dr. Ron Smith, 1966 Kanza yearbook photo

Picture 4: 1988 Kanza yearbook, (front row) Lori Oneal, Terry Lee, Darbi Stancell, (2nd row) Randal Salisbury, Kym Wright, Marcia Allmond, Tim Flood, (3rd row) Dr. Gary McGrath, Mala Renganathan, Patrick Robertson, Tony Simmons, Todd Tarter, (4th row) Dr. Harold Thomas, Cynthia Huffman (Woodburn), Karen Wilson, Kim Ward, Scott Seshier (5th row) Dr. Helen Kriegsmann, Nabil Husni, Dr. Will Self

Picture 5: KME 1966 yearbook, (front row) William Probst, May Breedlove, Pansy Sale, May Stange, Jessie Bailey, Mr. Robert Hart, Dr. Ron G. Smith, Ruth Way, Bob Lucian, Abdul Morehedi Majid, (back row) Keith Huff, Mary Roper, Judy Murphy, Antoinette Cordry, Doug Cooper, Wilson Crisler, Chuck McGuire, Dr. Helen Kriegsmann, Roger Lessman, Larry Peterson, Gary Griffiths, Dr. Harold Thomas, Roger Christian

Picture 6: More KME 1966 yearbook, (front row) Dennis Ferman, Richard Seifert, Jim Carlosn, Walter Looper, Wade Dorothy, John Weide, Bob Painter, Mr. J. Bryan Sperry, (back row) Tang-Yong Lo, Peter Jack Chi, Mark Van Autken, Beverly Powell, David Yousefyadek, Gary Steele, Christine Triplett, Louis Shields, Marcia Peck



## KME Pictures



Ashley Reavis presenting *Modeling Hyperbolic Geometry through Crochet* at a local KME meeting.



Samantha Pendleton was excited to be initiated into the Math Honor Society KME.

## Pitt State Math Relays Pictures



Mr. Bryan Sperry and Dr. Helen Kriegsman always come and help at Math Relays.

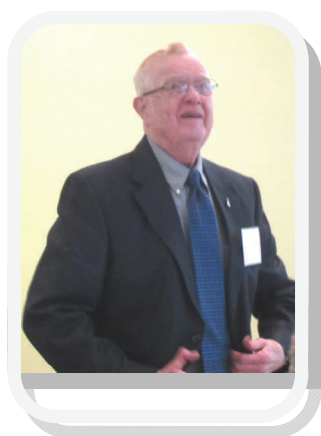
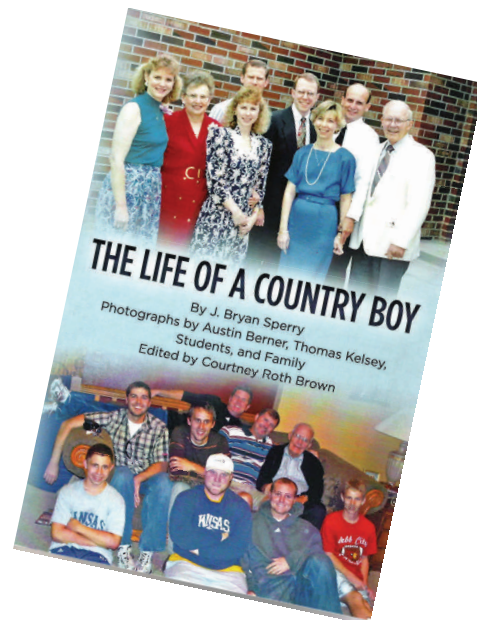






**Congratulations** to Dr. Hazel Coltharp for winning the 2012-2013 PSU College of Arts and Sciences Excellence in Teaching Award! She is pictured here with Dr. Karl Kunkel, the Dean of the College of Arts and Sciences.

**Congratulations** to retired professor J. Bryan Sperry on the publication of his book *The Life of a Country Boy*. Copies of the book are available for purchase from Amazon.com.



**Special recognition** was given to Dr. Harold Thomas at the 2013 National KME Convention in recognition for his service as a past national officer (historian, vice-president and president).

## Graduation Pictures



# Faculty Updates



**Dr. Karla Childs**

Last year I celebrated being at PSU for 20 years. Dr. Coltharp and I co-chaired the committee to plan the 2012 State KATM Conference which was hosted by the PSU Math Department. It kept us all very busy. I was also very active supervising eight graduate teaching assistants. It's the first time in my 20 years that we have had an all female group of GTA's! My sons both live in Los Angeles now. Tyler works in music management and Andrew is interning in the film industry.



**Mrs. Terry Martin**

In April of 2013 the Department of Mathematics held the 45th Annual Pitt State Math Relays. This year 57 schools from Kansas, Missouri, and Oklahoma participated, bringing around 1000 students. Students take written tests in areas including algebraic simplifications, word problems, logic and set theory, trigonometry, and probability and statistics. We award medals for first, second, and third places.

We post results of each test on the walls in the lobby of Yates Hall. The lobby is filled with students eager to see if they placed in the top ten. We also post results on the Math Department web page.

In the 23 years that I have directed the Math Relays, we have been blessed with wonderful weather for 22 of the years. Our campus oval is filled with students (during times that they have breaks) and the high school sponsors.

I have been faculty advisor for Campus Christians for several years, and just began serving on the school board for a Christian school in Pittsburg. In our spare time my husband and I love to spend time with our twelve grandchildren and playing tennis.

Actuary students Anthony Wang, Samantha Pendleton, and Miguel Diaz attending the spring 2012 Kansas Northwest Missouri Chapter meeting of the American Statistical Society.







## Dr. Hazel Coltharp

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“Do Math and You Can Do Anything” . . . I know it’s a long-time NCTM (National Council of Teachers of Mathematics) slogan, but our BSEd math majors are living it! We continue to be a major producer for area high school and middle school math programs in the area, and principals are still calling us in August, desperate for math teachers. Our graduates in math education can find a job if they’re ready to teach! With STEM careers being a hot topic and Common Core on everyone’s radar, it’s an exciting, and a little scary, time to be going into mathematics teaching! Of course, many of our graduates choose to stay on and teach for us in the department as graduate assistants.

Since our last newsletter in 2011, we have, as a department, hosted the Kansas Association of Teachers of Mathematics state conference in October of 2012 – we took a few liberties and used the slogan, “The Last Friday in Mayan October,” as our theme. We had almost 300 teachers from around the state of Kansas here over PSU’s Fall Break to learn and to enjoy taking new ideas back to their classrooms. We love these opportunities to renew our friendships, catch up with our alums – who came back as attendees and some as speakers themselves, and just to show off PSU! There’s nowhere more beautiful than PSU in the fall! Since we did everything “in-house,” having all of our departmental faculty in charge of something, we had “fun” experimenting (well, Dr. Flood did) with on-line registration – wow, what a headache-saver! Dr. Childs and I, though, were really, really happy when that Saturday hit!

This year, I’m savoring a bit more flexible time than in the past few years with no more Faculty Senate leadership duties or conferences to plan! I am enjoying concentrating more on teaching, but that’s a constant battle for me to try to keep up with my former and current students! I have seen the entire progression from recording our “lessons” in Techniques in the television studio in Hartman Hall (when I was a student, and still in use when I returned as a faculty member in 1993) to using a tri-pod and my Sony Handycam in our classroom in the basement of Yates, to having students beg the librarians and athletic departments to use their equipment in the “real” high/middle school classrooms, to Flip cameras, and now using iPads. I was the recipient of a Center for Teaching and Learning grant to pilot the use of iPads with our student teachers in the field last fall and was so impressed that the Math Department, with student technology fees, allocated enough to purchase 13 iPads for the current Techniques/Clinical students and student teachers! They’re loving all of the apps available; they’re bringing them to class to take notes (and pictures), and they are using them to record themselves then sending those recordings to me via YouTube – don’t look for them, we’re keeping them private since they’re for educational purposes only! Please e-mail me if you have a favorite app or tell us how you’re using laptops/tablets/netbooks in your classrooms. As often is the case, I feel like we’re playing catch-up with the area schools, many of which have already implemented, or are in the process of implementing, one-to-one initiatives of some kind. Luckily, I still have my tech support at home – Jean, our daughter, just finished her bachelor’s at PSU, in math ed, this spring and has started on her master’s in math at PSU. Not saying that she’s a chip off of the old block (I really have not tried to persuade her), but she did student-teach last spring at Colgan High School with the same cooperating teacher (and fellow PSU Math Department alum) with whom I did my student teaching – Chuck Smith! Chuck is an example of the tremendous support that our area high school and middle school math teachers provide by serving as cooperating teachers – we couldn’t do it without them/you!

Our son, Benjamin, is a junior this year at Carl Junction High School – for those of you old enough to remember, he’s the one that I was pregnant with when I was a younger faculty member. Like Jean, he is blessed to have one of my former students, Rich Neria, as his teacher for Trig and Math Analysis this year – we’ve (Jean and I) been spending evenings with flash cards memorizing the unit circle, degrees to radians, and the trig functions of “those” angles you just have to know! He’s toying with the idea of going into math ed as well, but tennis and drumming are his life now. My husband, who had just accepted the Vice President of Academic Affairs at Crowder College in Neosho, is . . . still there! He loves it and loves the opportunity to work with all of the area universities to provide the students at Crowder the best place possible to finish their higher education.

It’s Friday afternoon at 3:00, and Dr. Woodburn asked for these be to her by Sept. 13, so I had best finish up! It’s been a wonderful 20 years at PSU, and still absolutely love my job, please send us your math majors because we can’t do it without them. Remember, if you’re a Gorilla Math teacher, join us on Facebook – I love stalking (I mean reading about) all of our former students!

## Dr. Elwyn Davis



Dr. Woodburn asked me to write an update on my life after retirement for Pittsburg State Mathematics alumni. So here goes.

I retired in May of 2010, and went with my wife on a retirement trip to Hawaii. That was a great experience, and I purchased a ukulele while there.

The purchase of my ukulele has lead to a new hobby, playing the ukulele. I now own 6: the original one which is a soprano size; a concert size; a banjolele; two tenor size; and my prized one, a custom made pineapple shape concert with a tenor neck. It is a fun, fun instrument to play.

I keep busy with several volunteer activities: I am the team leader for the Pittsburg Salvation Army emergency disaster services, and we were on the ground in Joplin by 7 PM after their 2011 tornado; I drive a route each week for Meals on Wheels; I read a couple of times a month for Audio Reader; and I am still active in Community of Christ Church, I was a delegate at Community of Christ's World Conference in April 2013.

I have given some talks on spherical geometry in high schools and at Northeastern State University of Oklahoma in Tahlequah, OK.

My health, and my wife's health, continue to be good. In fact, I recently took a test for long term care insurance, and the verdict was that I had no sign of dementia. One implication of that is that I remember quite a number of you alumni who were my students. They are almost universally fond memories.

I did set one retirement goal that keeps eluding me. It was to translate the German book, "Die Genesis des Abstrakten Gruppen Begriffes". This is a book about the history of groups. This task is still on my bucket list. It seems like every time I get the notion to brush up on my German I find it is more fun to play the ukulele.

My wife and I have taken several trips since the one to Hawaii. We drove to Acadia National Park and saw the sights along the way, then spent some time in eastern Canada. We also took a trip to the Badlands and Saskatchewan, Canada where we visited a newly found cousin. Last summer we took a local trip to visit many commercial caves in Missouri.



Fran McGrath, Karen Davis, Dr. Elwyn Davis, Dr. Cynthia Woodburn, and Dr. Gary McGrath waiting for the annual PSU Faculty Steak Fry.





## Dr. Tadek Dobrowolski

The academic 2014/15 year will be my twentieth at PSU! As always, when it comes to math, some years are “fatter” than other. This winter was good because, jointly with Dr. Antonyan (UNAM, Mexico City), we were able to give a proof of Szenthe’s “theorem” from 1974. Yes, Szenthe’s proof contained a fatal gap, which went unnoticed for almost 40 years (and many other “theorems” were proved, which relied on the “theorem”). From now on, if the other “theorems” have correct proofs then they are really theorems.

Lot of traveling this year:

Spring Topology and Dynamics Conference, New Britain, CT (my first “real” visit to Connecticut);

“Interactions between Logic, Topological structures and Banach spaces Theory”, Eilat, Israel;

Paraguay assignment - taught Math 153 to the elite students at Universidad Catolica, Asunción;

28<sup>th</sup> Summer Conference on Topology and its Applications, Dedicated to Ed Tymchatyn (my good friend) on the occasion of his 70th Birthday (North Bay, Canada);

International Conference on Topology and Geometry 2013, Joint with the Sixth Japan-Mexico Topology Symposium (Matsue, Japan).

Otherwise, everything around is quiet. I teach Trig (since 1994), College Algebra (since 2010), Calculus II and III (from time to time). Last summer, I taught Trig as a hybrid course (online with on campus testing) – kind of interesting experience.

I am looking forward to my sabbatical leave next semester! I have many projects to finish. I am old enough to expect that one or two of them will be finished. If so, I will return to PSU very happy because life of a mathematician without teaching is a continuing drama. Simply, an accomplishment in “theoretical” math, which makes a mathematician really happy, happens so rarely. So, time flies and you do not see much results of your research activity. However, while teaching, at least, you have a possibility to share the beauty of math. This keeps you going.



Three mathematics education students (Rachael Sachs, Hannah Hays, and Krisanna Graham) taking a break for lunch while helping out at PSU High School Math Honor Day.



## Dr. Ananda Jayawardhana

Greetings!

It has been 14 and a half years since I started at PSU. I continue to teach statistics courses as usual. Mathematics Education majors are not required to take Probability and Statistics anymore and therefore I teach a course titled "Introduction to Applied Statistics" which is a slightly stronger version of Elementary Statistics. I have one or two graduate students work with me every year. I continue to do research on reliability and accelerated life testing. I also do a little research on teaching statistics. Our actuarial program continues with a small number of students as it has since the beginning. I presented a paper at the Joint Statistical Meeting in August 2013 with Mr. Yang Song titled "Lower Prediction and Tolerance Bounds in Accelerated Life Testing for the Rayleigh Distribution." This paper was based on Yang's MS paper he completed in December 2012. I published a paper titled "Do Normal Probability Plots Tell the Truth" during Spring 2013. I continue to serve the American Statistical Association, on the state-wide Tilford Conference Planning Committee, and on campus committees. I served as the PSU/KNEA president during 2012-13 and shared a sound governance award from American Association of University Professors with the President, Provost, and Faculty Senate President. Last year I received the Chapter Service Recognition award from the Kansas-Western Missouri Chapter of the American Statistical Association for my 9 years of service to the chapter. I started a Mu Sigma Rho Statistics Honor Society with the help of other universities in the state and we have inducted about 60 students so far including 5 PSU students. I continue to accompany students to conferences and career fairs.

Regarding the success of my former masters students, I recently learned that Hung-Chih Ku has completed a PhD in statistics about two years back and Olga Vsevolozhskaya has completed her PhD in statistics in May 2013. Sungwook (Peter) Kim and Ningning Wang are planning to defend their PhD dissertations in December 2013. Most of the former actuarial students have become fellows or associates with the last news from Loren Karleskint becoming an associate in 2013.

I have an exciting crop of students currently and I am so excited to work with them. I have moved to room 208, next door to my previous office. I record departmental and university wide activities on Facebook regularly.

In a private note, my wife has completed a masters degree in nursing from PSU and currently works with a surgeon in Freeman Health System in Joplin, MO.



Math and physics students visit the Rare Book Room of Linda Hall Library during fall break.





## Mr. George Kaemmerling

This past year I received my ten years of service pin from Pittsburg State University. I have been teaching here a few more years than the service pin indicates. I taught as a Graduate Teaching Assistant and as an adjunct before getting a full time position.

I was drafted to play on the math faculty softball team for a day of fun and a few days of pain. I was the pitcher. I was given orders not to play but what could I do. I grew up in a time when if you were drafted you had to report.

To show support for our student athletics I attend many games. I believe that our players do better when the fans cheer so I cheer, especially at volleyball matches. Come sometime and help me cheer.

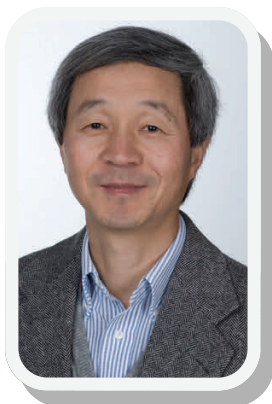
To help spread the word about Pitt State I have some special shirts made each year which I usually wear when I travel out of town. For the past several years I have been to the Women's College World Series Division I fast pitch softball tournament in Oklahoma City. There I walked around the field displaying my Pitt State shirt. The glitter split face ones seemed to get the most attention last time there. Some people even took pictures of the shirts. Sometimes I ran across a Pitt State alum because of the shirts.

I was out of high school (Fort Scott) for seventeen years before I was able to pursue my Bachelor's Degree. I am proof that it can be done and it is never too late. However, I believe the sooner the better. A college degree does make a difference.



Math major Ashlee Hisey participated on a study abroad trip to South Korea. She's in the center of the front row in the picture above and on the right in the picture to the right.





## Dr. Yaping Liu

I'll start with my teaching. In the past few years, I have been teaching the same classes most of the time, from calculus, differential equations, mathematical modeling, senior seminar, to probability models. To break the monotonicity, I try something new each year, such as rewriting my lecture notes, utilizing new teaching tools, and adjusting the evaluation scheme. Occasionally I do get to teach new classes and frequently students ask me to offer reading classes to satisfy their particular needs. In 2010 I applied for and received a Summer Teaching Enhancement Grant to develop teaching materials for the modeling class over a three year period. So I have been working on some new projects and employing them in the modeling class every year. This keeps me busy and my enthusiasm high.

I have been going to math conferences. These include a few talks at regional meetings and a workshop in Shanghai, China on Nonlinear Parabolic/Elliptic Equations with Emphasis on Mathematical Spatial Ecology. I've also been serving as a reviewer for Zentralblatt MATH, the most comprehensive and most traditional reviewing service in mathematics. I write about a dozen reviews for them each year. That takes time but it's time well spent.

Over the years I have been taking on more service roles, including serving on various departmental and university committees. As the Departmental Graduate Coordinator I am glad to report that our graduate enrollment in recent years has gone slightly up, and the success rate on the master's comprehensive exams has been pretty high in the past 2 to 3 years. I particularly enjoy the role of being the Colloquium Coordinator. I organize the mathematical talks in the department and provide cookies for the participants. A list of recent talks shows the wide variety of topics:

*Southeastern Alaska through a Mathematical Lens*, by Dr. Woodburn, PSU

*Life Of  $\pi$* , by Dr. Yaping Liu, PSU

*From Billiards to Surfaces*, by Dr. Kari Calta, Vassar College, NY

*A Number by Any Other Name...*, by Dr. John Diamantopoulos, Northeastern State University, OK

*Nonparametric Statistical Methods Based on Ranks at Elementary Statistics Classes*, by Dr. Ananda Jayawardhana, PSU

*Traipsing through Italy in Mathematical Shoes*, by Dr. Cynthia Woodburn, PSU

*Möbius Transformation and Apollonius Problem*, by Dr. Tadek Dobrowolski, PSU

*Mapping Return Values of Extreme Wind Speeds*, by Dr. Adam Pintar, Mathematical Statistician for National Institute of Standards & Technology

*A Look into the Life of an "Anti-hacker"*, Mr. Ben McBride, Senior Member of Technical Staff, Sandia National Labs

I would like to point out that one of the recent speakers, Dr. Adam Pintar, was one of our master's students. He had studied statistics with Dr. Jay. Our graduates do come back occasionally to give talks. If you have some interesting math to share with our faculty and students, and you would like to give a colloquium talk, or if you want to attend some of the presentations and would like to be included on a mailing list, please let me know. You can send me an email at [yliu@pittstate.edu](mailto:yliu@pittstate.edu) or call 620-235-4402. Hope to see you in the near future.

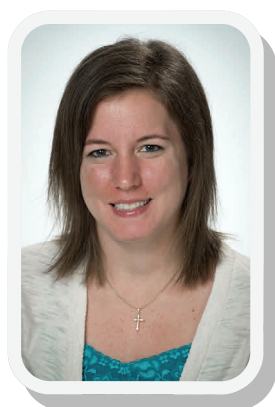




## Mr. David Newcomb

This semester marks six years that I have been a full-time instructor in the Mathematics Department at PSU. It continues to be a challenging and fulfilling experience. Preparing for the variety of courses that I teach (College Algebra to Mathematics for Elementary Education to Calculus I to Mathematics Education Seminar) has kept me extremely busy. But it is a good busy. In addition, the nature of the variety of students is always interesting. The students are the heart of PSU and they keep everything and everyone active.

In our spare time my wife and I enjoy activities around the home (gardening and taking care of grand-kids) and getting away from the home (traveling and camping).



## Ms. Vanessa Peach

Greetings and Salutations!

It has been a busy and exciting year so far! On February 7, I married the love of my life, Lorin Williams. That unleashed a whirlwind of trying to find a place to move in Pittsburg and trying to finish up my degree, as I was taking my last semester as a graduate student and teaching. Also during this time, I was helping take care of my father who was battling cancer.

Happily, I made it through and graduated with my Master's degree from Pittsburg State University in May! Even better and more importantly, my dad is currently cancer free! Upon graduation, I was honored to receive a full time instructor position in the math department.

This past summer found me getting used to married life and preparing to teach my fall classes, two of which I had never taught before. My current course load includes College Algebra, College Algebra with Review, and two sections of Quantitative Reasoning – one of which is Writing to Learn. Teaching these courses have brought new struggles but also a ton of enjoyment.

I am greatly enjoying getting to work with the members of this amazing department. It was a privilege to learn from them and an even greater privilege to get to work with them now. I look forward to what the future holds. Thanks for reading, and thank you for keeping up with the department!



## Dr. Jeremy Wade

Greetings, friends of the math department!

It has been a busy year and a half since the last newsletter. I have had the opportunity to teach Calculus II, Numerical Analysis, Linear Optimization Models, and Linear Methods in Analysis, among other courses. I was also fortunate to have a student pursue an honors research project in Linear Optimization Models. Charles Harrison did some interesting work on quadratic programming, and we both enjoyed expanding our knowledge of optimization techniques.

I have also been fortunate enough to work with graduate student Zhiwen Wang, who is currently writing software related to wavelet decomposition. In the summer of 2013, Zhiwen wrote some computer code in python that performs division of Laurent polynomials - these are similar to polynomials, but the exponents of the variable are allowed to be negative. He is currently working on applying this program to wavelet filters to create a more efficient program for computing wavelet decomposition of signals.

I have also been working with Dr. Steven Werder on his very fascinating Master's research project. Dr. Werder is reading a chapter from Joseph Fourier's "The Analytical Theory of Heat", and comparing the way mathematics was done by Fourier with the way mathematics is done today. This has been incredibly challenging and enlightening for both of us.

I was also fortunate enough to have two research articles published in 2013, and was able to give a presentation at the annual meeting of the Society for Industrial and Applied Mathematics in Minneapolis in July of 2012. I am currently reading articles on and investigating the existence of Gaussian quadratures in higher dimensions.

In addition to my research and teaching, I am currently serving as secretary of PSU-KNEA, and will be the mathematics department representative to the faculty senate beginning in the Fall of 2013.

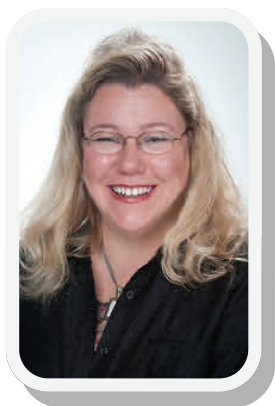
Thank you for staying in touch with the math department. I am very grateful to have the opportunity to work with such outstanding students and faculty at Pittsburg State. Please keep in touch!



## Dr. Bobby Winters

After seven years of being half-time math/half-time assistant dean, I've been converted to full-time administration as associate dean of the College of Arts and Sciences. I will still be teaching three classes a year in the Department of Mathematics, but the bulk of my time is spent in Grubbs Hall rather than Yates.





## Dr. Cynthia Huffman Woodburn

Howdy, Math Alumni and Friends!

My, how time flies! This is the start of my twentieth year as a math professor at PSU. I love hearing what all of you are doing, whether it be through Facebook or some other means. (In case you didn't know, there is a Facebook group called "Pitt State (Kansas) Math Alumni". We had to add the (Kansas) in there, because we were getting requests from people who had gone to school in Pennsylvania.) It is wonderful to hear how well so many of our alumni are doing in their careers and personal lives.

Since the last newsletter I have been busy dividing my time between teaching, scholarly activity, and service. I was excited to have the efforts I have put into my job recognized with promotion to the rank of University Professor this fall. I love my job and working with such wonderful students and colleagues. I continue to teach History of Math, Abstract Algebra, Linear Algebra, and the graduate Algebra I course each year, along with whatever other courses Dr. Flood assigns for me to teach. I am supervising five Masters projects this fall, bringing the total number I've supervised up to 41. I have also been teaching a relatively new course on geometry for pre-service middle school teachers and experimented with the use of iPads as a learning tool for the students. "Course ReDesign" has been a hot topic in higher education and I received a summer teaching stipend to do a redesign of the History of Math course, adding more multimedia and hands-on activities. So far this fall, the anecdotal evidence is that the redesign has been beneficial to the students. We're also planning a class field trip to Linda Hall Library in Kansas City to tour the Rare Book Room and to learn about taking advantage of the resources available for doing research in the history of mathematics.

It has been a great few years scholarly activity-wise for me. Since 2009, I have been participating in the Mathematical Association of America Study Tours. These tours have been a great opportunity to learn firsthand about mathematical topics, especially topics from the history of mathematics. The tours that I have participated in have been to Egypt, Guatemala, Italy and Alaska. Each trip has led to more research and to presentations at national, state, and local meetings. For instance, the Guatemala trip got me interested in Mayan mathematics, and was timed to coincide with interest in 2012 and Maya calendars. One of the high points of my career was when my MAA talk at JMM2012 on Maya Geometry was one of just a handful of the record-breaking 2700 JMM talks featured in the "Selected Highlights of the 2012 Joint Mathematics Meetings" on the American Mathematical Society's webpage (<http://www.ams.org/meetings/national/jmm12-addresses>). Then in 2013, an article co-authored by myself and Dr. John Diamantopolous of Northeastern State University was published by the peer-reviewed online MAA journal *Convergence*. In fact, the article was so well-received by the reviewers, that the editor asked us to write another related article. Another career highpoint was having this article featured (twice) on the Mathematical Association of America's Facebook page this fall. Hopefully this publicity has been helpful in spreading the word that Pitt State is a great school!

I also continue to keep busy service-wise. I'm half-way through my second four-year term as National Treasurer for the mathematics honor society Kappa Mu Epsilon, and I'm also faculty sponsor for our local chapter of KME. In 2012, I was elected Governor of the Kansas Section of the Mathematical Association of America. Other KSMAA Governors from PSU were Dr. Harold Thomas (1973-76) and Dr. Ron Smith (1958-61). I'm also the public information officer/webmaster/newsletter editor for the Kansas Section of MAA. Another major service role I hold is as a member of the Board of Editors for the MAA Classroom Resource Materials series. Typically we are sent a book manuscript to review every four to six weeks. It takes a lot of time, but I feel it is a privilege to serve on a national board plus an important job to decide what gets published and what does not, and to guarantee the quality of materials published by the MAA. In addition, I have found some of the manuscripts very interesting and have learned a lot of new things that can then be passed on to benefit PSU students in the classroom. I also am a member of the Steering Committee of PSU's eLearning Academy, whose mission is to provide professional development to PSU faculty for designing quality online courses.

Personally, I've been enjoying watching my son mature into a nice young man who makes his mother proud. He has been the trumpet section leader at his school for the past three years and is looking forward to being a Gorilla next year. He is also quite the handbell ringer and is currently playing in two handbell choirs.

Please continue to keep in touch and to stop by the department anytime you are in town. Once a Gorilla, always a Gorilla!

## Alumni Highlight

Where we “brag” on one of our former students!

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The alumnus highlighted in this edition of the PSU Mathematics Department Newsletter is Jason Knight. Jason was born in Louisiana and lived in Missouri for a while, before spending most of his childhood and teen years in Pittsburg, Kansas. In May of 2006, he received a BSEd in Mathematics from PSU. He then worked for two years and returned to earn a Master’s degree in Mathematics from PSU in 2010.

Jason is currently a Merchandise Planner for the Landscaping category group at Wal-Mart Stores Inc. The Landscaping category group consists of all mulch, soil, gardening, and concrete merchandise at all Wal-Mart stores in the United States. When asked if he uses math and/or problem solving skill in his job, Jason answered, “I am constantly using math and problem solving skills in my job. As a Planner I manage the P & L for my category group. To manage the P & L I need to be able to analyze data and determine what is impacting a particular metric: sales, profit, turns, markdowns, etc. Having a Bachelor’s and Master’s in Mathematics has been a huge advantage for me.”

Jason returned to campus on October 17, 2013 as the featured guest speaker for Math Honor Day and spoke to a group of approximately 60 high school students and teachers motivating students to continue their mathematical stud-

ies. Knight mentioned, “I really enjoy working for Wal-Mart. There is a great corporate culture and you have so many unique opportunities that only working for the world’s largest retailer can offer. One word of advice that I can offer students is, don’t be afraid to be yourself when you interview for a job and when you begin working. It’s easy to fall into the trap that you need to be like someone else – we tend to have an image of what we think we need to be like to get hired and work in the corporate world. A good company will value diversity of thought. You need to understand that you were hired because of the unique perspective you can bring to the table, not to behave like someone you’re not.”

Jason currently resides in Bentonville, Arkansas with his wife and two boys. Jason recalls, “I can honestly say that my time at PSU was great. I still think back fondly of my time at PSU, particularly the time I spent in the math department. Here’s another word of advice – if you’ll let me share some more with you – chances are that you will never have as much time to put into your personal development as you do in your college years. Take advantage of the time you spend in school, and PSU is a great institution at which to do that.”

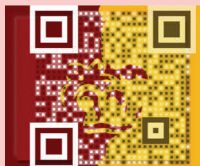


*Jason Knight, Merchandise Planner, Wal-Mart, PSU Alumnus*

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