



## Special points of interest:

- University and department is saddened by loss of Dr. Helen Kriegsman
- Students win presentation awards
- The number of math majors is currently 58 undergraduate and 24 graduate students.

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## Pittsburg State University College of Arts and Sciences

### News from the Chair

As you will see in this newsletter, if you were not already aware, the math department, PSU, and the city of Pittsburg suffered a tremendous loss in November with the passing of Dr. Helen Kriegsman. Helen dedicated her life to service to the PSU math department, the mathematics profession, the Pittsburg community, and her church.

Throughout her life, she received a multitude of awards and recognitions for her countless hours of service. Dr. Kriegsman leaves a tremendous legacy in the department and will be missed by all who knew her.

In addition, the department is saddened by the retirement of Mr. George Kaemmerling. George was a Graduate Teaching Assistant in the department from 1998 to 1999 and became a part-time instructor in 2000. George took on a full-time instructor role in 2002. George was an outstanding instructor in the department and an avid supporter of PSU women's athletics. He too will be missed.

On a happier note, the department is eagerly looking forward to another outstanding year. As you look through this newsletter you will see the various accom-



plishments of our faculty and staff this past year. In last year's newsletter I highlighted the growth in our graduate program which remains very strong. This year's numbers remain very near last year's numbers. In addition, our undergraduate program remains strong. Our number of graduating students has dipped the last few years; however, the future looks bright. We currently have 22 students enrolled in Math 413 Intro to Mathematical Thought for the fall. This looks like an outstanding group of students.

We have implemented two significant curricular changes this past year. We have split our BSEd into two emphases. Our current BSEd will now be a Bachelor of Science in Education Degree with a Mathematics Major (Emphasis: Teaching Grades 6-12) and we have also created a new emphasis in Teaching Grades 5-8. This does not replace our existing Minor in Mathematics (Teaching Grades 5-

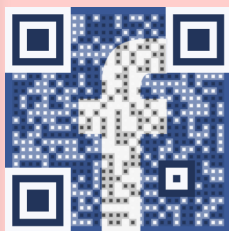
8) but is a stand-alone degree leading to licensure at the Late Childhood through Early Adolescence (middle school) level. At the graduate level we have created an 18-hour Certificate in Graduate Mathematics. This certificate is designed to certify that the recipients have a knowledge base in graduate mathematics requisite in a variety of areas including collegiate level teaching.

As I have highlighted in the past, the building has received some minor renovations each summer over the last few years. This summer, the first floor restrooms have received major renovations with new fixtures and new surfaces throughout. Although they are not yet completed, it looks like they will be a great improvement by the first day of classes.

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 so we can pass the word on to others. As you can see from this newsletter, our retired faculty members are still active and drop in occasionally for a visit. We would welcome a visit from you as well if you ever happen to be back in Pittsburg. We would love to reminisce and to hear what's new in your life.

## 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.



Join us on  
Facebook:  
Pitt State  
(Kansas)  
Math Alumni

### Mr. Newcomb and Dr. Huffman Honored

Congratulations to Mr. David Newcomb and Dr. Cynthia Huffman, who were recently two of 9 faculty recognized by the PSU Athletic Council and Intercollegiate Athletics for continued support and dedication to Pitt State student-athletes. Mr. Newcomb was selected to receive the award by the Women's Track & Field team, while Dr. Huffman was chosen by the Women's Basketball team. In the three years that the award has been instituted, the Math Department has had 5 recipients: Dr. Bobby Winters (2015), Mr. George Kaemmerling (2016), Dr. Jeremy Wade (2016), Dr. Cynthia Huffman (2017), and Mr. David Newcomb (2017).



(Above) Faculty recognized by the PSU Athletic Council and Intercollegiate Athletics at the Feb 18 PSU Women's Basketball Game. Photo Credit: Carla Wehmeyer, PSU Athletics

### Department Loses Former Chair

Dr. Helen Kriegsman passed away on November 25, 2016 at the age of 92. She had been chair of the Mathematics Department from 1967 to 1989. Even upon retirement, Helen continued to support the department, attending events and helping out at the annual PSU High School Math Relays. She was the first female to have a tenure track position in the PSU Math Department. Memorials in her honor can be given to the PSU Math Department. Dr. Kriegsman was the Highlighted Alumni in the 2015-2016 departmental newsletter and more information can be found at <http://www.pittstate.edu/departement/math/files/newsletter/newsletter2015.pdf>. Her obituary is at <http://www.legacy.com/obituaries/name/helen-kriegsman-obituary?pid=1000000182818082>.



## KME National Convention in Springfield, MO

Kappa Mu Epsilon, national mathematics honor society, held a National Convention on April 7 and 8, 2017, in Springfield, Missouri. The tradition of PSU's KME Chapter Kansas Alpha being well-represented continued as 3 undergraduate students and 3 faculty attended the convention. Dr. Scott Thuong served as chair of the Audit Committee and undergraduate student Georgette Searan served on the Resolutions Committee. The team of Landis Duff and Jacob Rowley presented *Coloring  $R^n$* . The team received one of the top presentation awards of the convention. Dr. Leah Childers was on a graduate school panel and Dr. Cynthia Huffman led a workshop on *Belly Math: Cosets in the Belfry*. The group was joined by Gorilla Vanessa Peach Williams, now a faculty member at Truman State University (KME Missouri Eta), who brought 7 students, and Gorilla Dr. Bryan Dawson of Union University (KME Tennessee Beta), who brought a student presenter.

The PSU chapter of KME, which is called Kansas Alpha, has a long history going back to 1934 when we were the 3<sup>rd</sup> chapter in the country installed into KME. More than 2000 Pitt State students have been inducted into KME over the years.

Several faculty members have served national offices with KME, starting with J.A.G. Shirk, who was the second National President of KME and also served as Secretary. Former department chairs Dr. Ron G. Smith served as Vice-President (1957-1961) and Dr. Helen Kriegsmann was Editor of the

Pentagon journal (1965-71). Dr. J.D. Haggard was Historian (1963-1967). Dr. Harold Thomas served as KME Historian, President-Elect, and President. He received the most prestigious award granted by KME, the George R. Mach Distinguished Service Award, in 1997. Also, Dr. Thomas and Dr. Huffman each served as Regional Directors for 8 years, and Dr. Huffman served as Treasurer (2007-2015).

PSU will now have 2 faculty members on the KME Executive Council, possibly for the next 8 years. At the 2017 National KME Convention, Dr. Leah Childers was elected President-Elect and Dr. Cynthia Huffman was elected Historian.

The Kansas Alpha Chapter of KME is very grateful to Dr. Thomas for his generous support for student travel to conventions.

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 request to join the group. There is a Facebook page for national KME as well.

Dr. Scott Thuong, Landis Duff, Dr. Cynthia Huffman, Dr. Leah Childers, Georgette Searan, and Jacob Rowley at the 2017 KME National Convention in Springfield, MO.



Jacob Rowley and Landis Duff receiving checks for having a top presentation at the 2017 KME National Convention.



Alumni Dr. Bryan Dawson and Vanessa Williams at the KME National Convention.



## Upcoming Events

**PSU Fall Break,  
Oct 5-6, 2017**

**PSU High School Math  
Honor Day,  
Oct 12, 2017**

**PSU Homecoming,  
Oct 14, 2017**

**KATM, Topeka, KS,  
Oct 16, 2017**

**Joint Mathematics  
Meetings, San Diego,  
CA, Jan 10-13, 2018**

**2018 Spring Semester  
Starts Jan 16, 2018**

**KSMAA, Johnson  
County Community  
College, TBA**

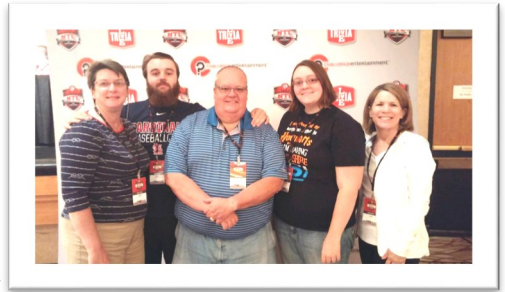
**PSU Math Relays,  
April 10, 2018**

**KME Regional  
Convention, Emporia,  
April 14, 2018**

**Math Banquet.  
April 22, 2018**

## Professors Compete at National Trivia Contest

"In what state was Barbie's home town located?," "Who was the first, first baseman, to reach 500 homeruns after Babe Ruth??" Questions like these in categories such as television, celebrities, music, comics, movies, history, science, geography, vocabulary, Greek mythology, and, once in awhile, math, led Drs. Coltharp (Glenn and Hazel) and Childs, with Jean and Benjamin Coltharp to qualify for playing in Challenge Entertainment's National Trivia League's national championship in Las Vegas, Nevada in August of 2016. The Coltharps stumbled onto Trivia Night at Gusano's in Pittsburg, then Joplin, the year before, and enjoyed getting together as a family, along with Dr. Childs, to play trivia once a week. Finishing in the top 5 at the local establishment qualified a team to apply to go to nationals, which was limited to the first 200 teams enrolling. Our team, "Li'l Sebastian" was hoping to finish in any place except 199 or 200. Serious contenders had their own team shirts and could be seen huddling feverishly or rushing up with their answers as soon as the questions were read (there were no added points for quick answering!). The more laid back Li'l Sebastians enjoyed the atmosphere and the free pens, and due to careful and conservative betting on the final question (betting 0 points), rose from 112th to 51st place! There was no "big money" place finishing, but it was a lot of fun, and Dr. Glenn Coltharp won a new laptop in one of the frequent drawings for free stuff! Li'l Sebastian, sans Dr. Childs this time, is off to New Orleans this August and hopes to do at least as well as last year (and get more free stuff!). If you're in the Pittsburg or Joplin area, Challenge Entertainment operates at the Gusano's in each town, and in Pittsburg, you'll see the Biology faculty well represented by the team name of "Herm Aphrodite," the History faculty touting "The Galloping Gustavs," and other faculty members showing up for a good time! Dr. Thuong, and alumnus, Tim Walker, can often be seen helping out the Li'l Sebastians, so we're pretty stacked with math folks, but we're often disappointed at the low caliber of the math questions - when we get one (e.g. "what is the Greek letter associated with the concept of change?" and the Trivia Jockey decides to play, "Delta Dawn" as the countdown song!). Check out their website for a location near you, and maybe we can meet at Nationals! (Article credit: Dr. Hazel Coltharp)



## Mathematics Conference for Undergraduate Women

The 19th Annual Nebraska Conference for Undergraduate Women in Mathematics was held on February 3-5, 2017 in Lincoln, NE. The Conference is open to outstanding undergraduate women mathematicians. Students have the opportunity to meet other women who share their interest in the mathematical sciences, and

those who already have done research are given an opportunity to present their results. The focus of the conference is to encourage and mentor undergraduate women to pursue graduate study in mathematics and seek mathematical careers.

This year Dr. Leah Childers, Haley Reynolds, and Hannah Himes attended from PSU. PSU math alumna Lara Ismert, currently pursuing a doctorate in mathematics at University of Nebraska—Lincoln, was one of the Invited Grads at the conference.



## Annual PSU Math Picnic Pictures



## Pre-Images

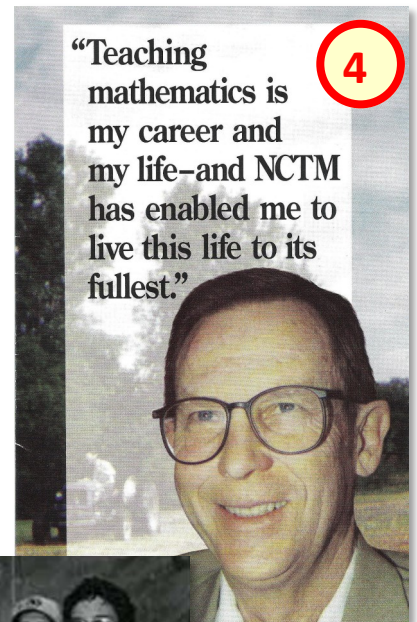
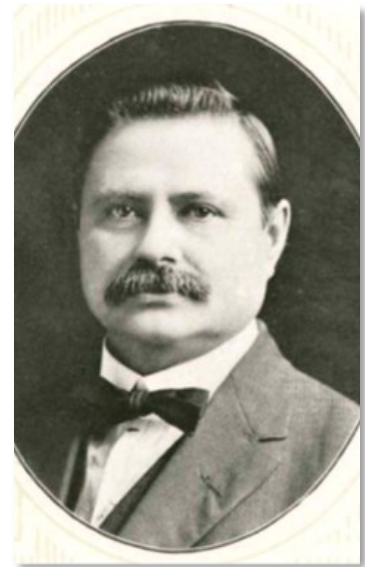
The next two pages contain a collection of pictures from the “archives”. How many can you name and date? (Answers at bottom of next page.)

### 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. For summer 2017 and the 2017-18 academic year we awarded \$40,700 in undergraduate scholarships and \$23,372 in graduate scholarships.



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Picture 1: Dr. Helen Kriegsmann in the 1958 College High yearbook.

Picture 2: J.A. Yates from the 1915 Kanza yearbook.

Picture 3: Dr. Hazel Coltharp and Dr. Harold Thomas at the 2006 Math Picnic.

Picture 4: Don Hight was featured in a 1995 NCTM brochure for the NCTM 75th Anniversary. The inside of the brochure has information on Dr. Hight and his career on three of the five folds.

Picture 5: 2000 Yearbook picture of Kappa Mu Epsilon. Front Row: Dr. Cynthia Huffman, Melissa Hess, Carrie Denton, Naamah Bennett, Dr. Tim Flood. Back Row: Dr. Yaping Liu, Jennifer Bower, Tim Pierce, Don Stephens, Brian Townsend, Jeremy Dill.

Picture 6: Awardees at the 2010 Honor Banquet. Front Row: Krysten Fraley Clay, Kevin Spencer, Jennifer McCracken, Jean Coltharp, Hannah Auman Deters, Vanessa Peach Williams, Mary Jo Swann, Bethany Burns Schultz, Melanie Wolfe Crosslin, Taewon Kim, Yixen Chen. Back Row: Dr. Tim Flood, Jason Knight, Samantha Pendleton Kings, Aaron Flood, Jordan Jameson Epler, Fo Kodzo, Chad Hays, Talon Thompson

## PSU Mathematics Colloquium Series

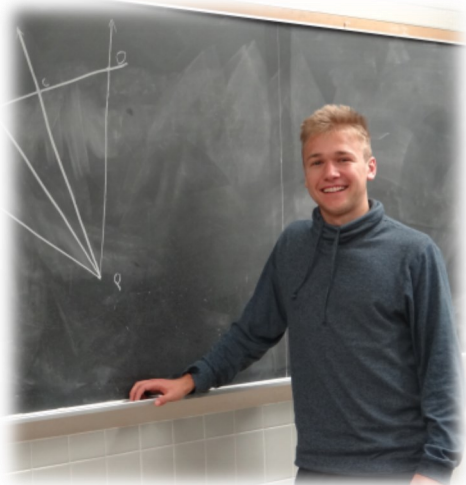
The Math Department continues to hold a colloquium series. To schedule a colloquium or for more information, contact Dr. Liu at [yliu@pittstate.edu](mailto:yliu@pittstate.edu). The following were the colloquia for the 2016-2017 school year.

- Dr. Cynthia Huffman, PSU: *Mathematical Passions: A Look at Two 18th Century Female Mathematicians*, September 13, 2016
- Dr. Ananda Jayawardhana, PSU: *Testing for Randomness*, September 20, 2016
- Dr. Scott Thuong, PSU: *Two-Dimensional Crystallographic Groups*, November 3, 2016
- Dr. Elwyn Davis, PSU (retired) : *Fundamentals of Projective Planes*, November 9, 2016
- Dan Eckstein, PSU: *From Compass to Wallpaper*, November 17, 2016
- ♦ Dr. Ananda Jayawardhana, PSU: *How to use Doceri "Interactive whiteboard for iPad" to teach classes which require blackboard and chalk work*, November 29, 2016
- ♦ Ashlee Hashman, PSU, *Bernstein Polynomials and Bezier Curves*, December 2, 2016
- ♦ Will Zimmerman, PSU, *Computers and Mathematics*, December 6, 2016
- ♦ Dr. Bobby Winters, PSU, *How the Greenwich Stole Christmas*, December 7, 2016
- ♦ Dr. Cynthia Huffman, PSU, *Girolamo Cardano: Physician, Astrologer, Gambler, Mathematician, and More*, March 30, 2017
- ♦ Dr. Ananda Jayawardhana, PSU, *Hypotheses Tests for the Median*, April 6, 2017
- ♦ Dr. Ananda Jayawardhana, PSU, *An Application of Fibonacci numbers to probability*, April 17, 2017
- ♦ Courtney Wosoba, PSU, *The Effects of Implementing Real-world Examples into the College Algebra Curriculum*, June 12, 2017
- ♦ Jordan Epler, PSU, *Connections Between Computer Graphics and Linear Algebra*, June 28, 2017
- ♦ Ashley Keller, PSU, *Mathematics Behind the Google Algorithm and its Applications*, July 10, 2017
- ♦ Erica Bischoff, PSU, *The Architecture of La Sagrada Familia: Modeling Nature Through Ruled and Quadric Surfaces*, July 26, 2017
- ♦ Dusty Glynn, PSU, *Flipped Classrooms*, July 27, 2017



Erica Bischoff, Dusty Glynn, and Jordan Epler giving their Masters Research Colloquia.

## Undergraduate Student Shares Research



Undergraduate student Peyton Burlingame completed an honor's project while taking Introduction to Mathematical Thought by investigating a question posed in the MAA Monthly. His investigations led to studying the cross-ratio, a concept that often comes up in projective geometry. Peyton presented a talk titled Cross Ratio at a local KME meeting, at the PSU Research Colloquium in April, and the Kansas MAA meeting. Peyton's presentation at the Research Colloquium received third place in the undergraduate Science and Technology category. (Article credit: Dr. Leah Childers)

## Math at the PSU Graduate and Research Banquet

Clockwise from top: Ashlee Hashman receiving her award, Jordan Epler and her mother Regina Jameson (also a PSU Math Alumna), Ali Hakami and his wife, and Erica Bischoff and her husband.

Awards given were:

- ◆ PSU Outstanding Graduate Teaching Assistant

Ashlee Hashman

- ◆ Excellence in Scholarship

Erica Bischoff & Ali Hakami

- ◆ Excellence in Teaching

Ashley Keller & Courtney Wosoba

- ◆ Excellence in Professional Service

Jordan Epler & Laura Rawlins



## PSU Math Honor Day

October 6, 2016 was the PSU Mathematics Department's 17th annual Math Honor Day. Math Honor Day started as a way to reward exceptional high school math teachers as well as students excelling in mathematics from this area. Students and sponsors were treated to presentations by PSU faculty, a planetarium show, and a luncheon. Dr. Cynthia Huffman provided a musical interlude during dessert playing the bells. President Steve Scott welcomed the group to PSU. Dr. Scott congratulated the teachers and students for their hard work and talent in mathematics.

The featured guest speaker was Andrew L. Buchholz, Operations Research Systems Analyst for the U.S. Army. He is a PSU alumni with his Master's degree in mathematics. He spoke to the group about how his mathematics degree has helped him throughout his career and encouraged students to pursue college degrees.

This year's novice and veteran Outstanding Secondary Math Teachers were welcomed by Dr. Tim Flood on behalf of the Math Department.

2016 Outstanding Secondary Math Teachers were:

1. Randall Hayes from Webb City High School and PSU alum
2. Adam Bennett from Joplin High School and PSU alum
3. Kristin Holliday from Jasper R5 High School and PSU alum



Each winner received an award, certificate, recognition at the luncheon, and a check for \$100.00. There is also a plaque that remains in the Math Department office complex that lists the names of all winners.

Math Honor Day was attended by 15 high schools, and approximately 115 high school students and sponsors. It is a fun and entertaining day for students, as well as sponsors.

Students and sponsors are given packets of information including what types of jobs math majors obtain, math degrees offered at PSU, and general information about PSU. Several door prizes were also given to students during the luncheon. (Article credit: Dr. Karla Childs)



Above: Dr. Cynthia Huffman

Left to right: Pres. Steve Scott, Invited Speaker Andrew Buchholz, Awardees Randall Hayes, Adam Bennett, Kristin Holliday.

Photo Credit: Samuel Clausen, University Photographer



Members of the Pitt State Math Department and family members check out a new restaurant in town.

## KSMAA Meeting

Pitt State mathematics faculty continue to be very active in the Kansas Section of the Mathematical Association of America (KSMAA). Dr. Tim Flood currently holds three offices: Vice-Chair Elect, Historian and Coordinator of Section Liaisons, Dr. Cynthia Huffman is Public Information Coordinator, Dr. Leah Childers is Secretary, and Dr. Scott Thuong is co-coordinator of the Kansas Collegiate Math Competition.

The 2017 KSMAA meeting was held on April 28-29 in Lawrence, KS. Keynote speaker was Francis Su (Past President of the Mathematical Association of America). Five PSU faculty members and fifteen students attended the meeting, making the Gorilla group the largest at the conference.

### 2017 Faculty Presentations:

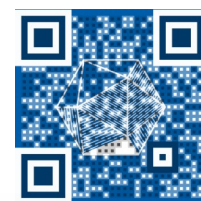
- ◇ Scott Van Thuong with students Landis Duff and Jacob Rowley, *Coloring  $R^n$*
- ◇ Ananda Jayawardhana, *Use of Doceri in Virtual and Online Classes*

- ◇ Cynthia Huffman, *Rare Mathematics Books at the Linda Hall Library*

- ◇ Leah Childers, *Mapping Class Groups: A Pictorial Introduction*

### 2017 Student Presentations:

- ◇ Katherine Brumley, *Algebra Drawn Out*
- ◇ Peyton Burlingame, *Cross Ratio*
- ◇ Ali Mohammed Hakami, *Al-Maghribi's Mecca Problem Meets Sudoku*
- ◇ Sam Platt, *Properties of Ulam Spirals and Other Prime Spirals*
- ◇ Caitlin White, *Thinking Like Cardano*



Graduate student Katherine Brumley presenting at the 2017 KSMAA meeting.



Most of the Pitt State group at KSMAA2017.

## Alumnus Presents to Students

On April 18, 2017, Gorilla Andrew Buchholz returned to campus. Mr. Buchholz and two of his colleagues spoke to students about opportunities for jobs and internships at the US Army TRADOC Analysis Center in Fort Leavenworth, Kansas. Andrew was also the invited speaker at PSU High School Math Honor Day in October.



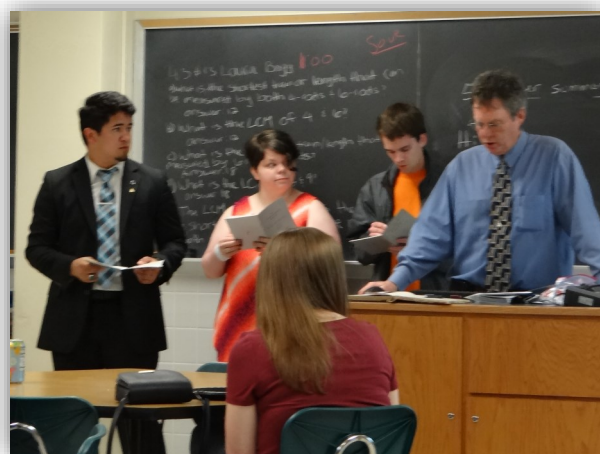
## Mrs. Martin leads procession



Mrs. Martin was mace bearer for one of the graduation ceremonies in the spring. Photo credit: Samuel Clausen, University Photographer

## KME Pictures

Officers and Dr. Flood at the start of the initiation ceremony in April.



Feb 2017 Kappa Mu Epsilon meeting.



## 2016 Math Dept Christmas Party



Photos courtesy of  
Dr. Jayawardhana

## Graduation Pics (December 2016 and May 2017)



# Faculty Updates



## Dr. Leah Childers

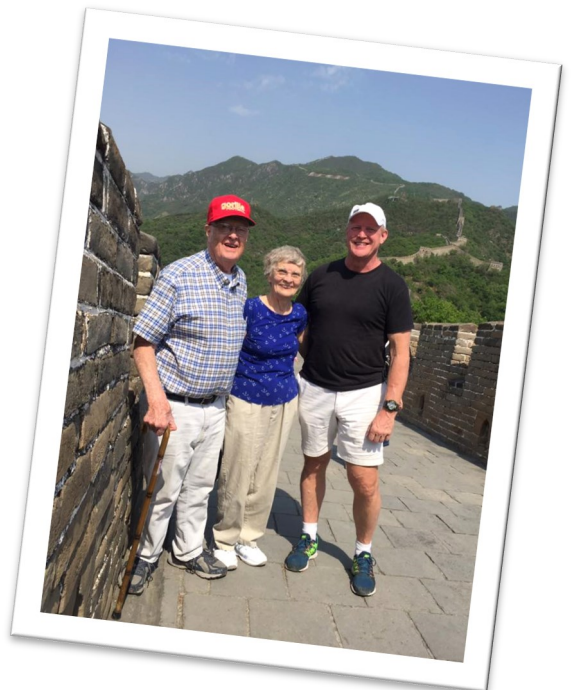
I've had a busy year getting reacquainted with Pittsburg State University. As always, the highlight of my year has been having the opportunity to work with our students. I had the pleasure of directing an undergraduate research project for Peyton Burlingame that led to him giving several talks at the local and regional level. In February I took two students to *Nebraska Conference for Undergraduate Women in Mathematics* in Lincoln, Nebraska. Students had the opportunity to learn about the many different options students with strong mathematical skills have. It was an inspiring conference full of mentoring and networking. In addition, I developed new courses including *Introduction to Mathematical Thought* and *Quantitative Reasoning*.

In December, I had the opportunity to participate in *Master Advisor* training. This training helped equip advisors with skills and information to best meet the needs of our students. Furthermore, I gave several talks this year including "*Mapping Class Groups: a pictorial introduction*" at an invited session at the Joint AMS/MAA Mathematics Meeting and an invited research talk at the topology seminar at the University of Arkansas titled "*The Automorphism Group of the Hyperelliptic Torelli Group*."

This year has been an exciting year seeing the book *Office Hours with a Geometric Group Theorist* get published. I coauthored a chapter on mapping class groups in the book and look forward to teaching a graduate course in the fall using the book. I also had a research paper published in the New York Journal of Mathematics (<http://nyjm.albany.edu/j/2017/23-31.html>). At the KME national convention this year I was elected President Elect of the national KME mathematical honor society. I'm excited to serve an organization that did so much for my career and continues to provide opportunities for our students to excel at and share mathematics.

Lastly, but definitely not least, my two girls—Elyse (4) and Bridget (2). Elyse can now count to 100, knows the sounds of all the letters, and can do small addition problems. Bridget has just learned to say her ABC's, can count to 15, and wants to keep up with her sister. It is amazing watching their curiosity and love of learning!

Retired mathematics faculty Dr. Harold Thomas, along with his wife Alice and son Steven, recently visited China. Here they are pictured standing on the Great Wall.





## Dr. Karla Childs

The highlight of my year was being awarded a competitive US Department of Education \$194,605.00 twelve-month grant. Dr. Matt Seimears, chair of Emporia State's department of Elementary Education, and I teamed up as the project's co-directors. The grant title is "MASTERS - Mathematics and Science Teaching Excellence in Rural Schools" and partners Pittsburg State University and Emporia State University with USD 461, USD 446, and USD 443 to deepen the cross-curricular mathematics and science content knowledge of K-6 teachers in Kansas schools.

As I traveled throughout rural Kansas this summer it was so special to see former students who are now teaching. We had a chance to catch up and reminisce about their days at PSU. Some of them already have children that are attending PSU! All totaled, more than 60 teachers met with 150 students in Dodge City, Fredonia, Independence, and Neodesha in late May and early June for MASTERS.

As always, I love working with the Graduate Teaching Assistants and our Math Learning Community students in Freshman Experience. They are exceptional young adults with so much excitement for learning and for the future.

I made several trips to LA to visit my kids who work in music + film. Look for my youngest son's credit (Andrew Childs) on The Lego Batman Movie!



Pictures from PSU Math Honor Day.





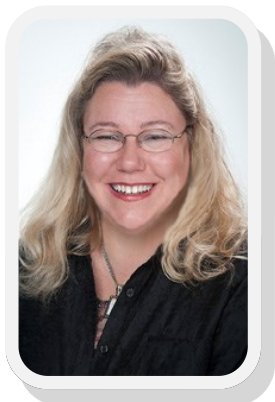
## Dr. Hazel Coltharp

Another year of preparing secondary mathematics teachers has flown by. We are hoping to see a bit of an uptick in candidates as we graduated just four candidates this past year, with only 2 accepting jobs in this area – Caney Junior High School and Carl Junction High School. The two moving a bit farther away included one in the KC Metro area at a charter school, and the fourth headed west to check out the Pacific Northwest’s opportunities! We’re excited to have at least 5 new freshman declaring BSEd math (including the son of a former student – yay Shelley!), so maybe we’ll see a turn around. With today’s environment in K-12

teaching, it’s not hard to understand students’ hesitations to go into teaching, especially with wages in other fields, even restaurant management, far outstripping even veteran teachers’ salaries. But we all know, there are aspects of the job that are priceless, as the saying goes. Please keep encouraging your students to consider a career in secondary math teaching!

As I mentioned in last year’s update, the Department continues to try to better meet the needs of our candidates; we did manage to get the legislation approved for the two new emphases for our BSEd major, and we can begin accepting students into the new emphasis area. The Middle Level Math Teaching (for grades 5-8) emphasis is a full-fledged math major and is in addition to the minor for teaching middle level math that other majors (e.g. elementary education, history, physical education, etc.) add on. This would allow someone to focus primarily on licensure at the middle level, but would also allow an option for the those 6-12 (now the “6-12 emphasis area”) candidates to change their emphasis, at the end of their program (if they choose or if needed) and graduate with a degree, and a license for middle level with the option to also take the 6-12 content exam.

Personally, not much change – I will be starting my 25th year back at PSU and loving it despite the challenges that many are facing – declining enrollments and continual cutting of state support for education (higher ed as well as K-12). I still love the excitement of starting a new school year/semester and the determination that this is the semester that I will be organized and my desk will look totally uncluttered (a girl can dream!). My husband is still Vice President of Academic Affairs at Crowder; my daughter, Jean, finished her last class on her doctorate in Mathematics Education at UMKC (my alma mater) and just has her comprehensive exams to pass and 2 semesters of “research hours” to pay for, and she’ll be done. She’s continuing to enjoy teaching classes at Missouri Southern in the Math Department, and we talk shop, and whine a little, since we teach some of the same classes/content. My son, Benjamin, is entering his last two years at PSU as a BSEd math major and member of the PSU Pride of the Plains drum line. We are very grateful to the Math faculty who sometimes reward dedicated attendance and somewhat hard work in addition to test scores! He does have a few more irons in the fire with starting his 3rd year working at the movie theater at the mall and second year working for the Math Department office and tutoring in the Math department tutor lab. Hope every one of you has a wonderful 2017-2018 academic and calendar year!



## Dr. Cynthia Huffman

Mathematics is everywhere and it is exciting to learn about new things! This past fall I was able to learn more about connections between mathematics and CGI in movies, by teaching a course called Mathematics and Computer Graphics. Together 20 students and I investigated how mathematics is used in computer games and movies, and by the end of the course, the students were able to create their own short animated movie. What fun!!!

In the spring, students in my History of Algebra course and I participated in a multi-year NSF grant project called TRIUMPHS (Transforming Instruction in Undergraduate Mathematics via Primary Historical Sources). We looked at how the concepts of groups and then ideals developed via original sources. I'll be testing another short project in my History of Math course in the fall of 2017.

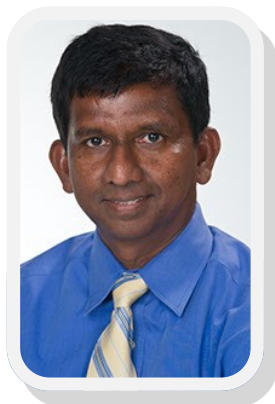
I continue to split my work time among teaching, scholarly activity, and service. Teaching is my favorite part and I try to make learning mathematics fun and relevant for my students. It was a great thrill to be one of several faculty recognized by the PSU Athletic Council in the spring. I was selected by the Women's Basketball team, who had another great season. Another highlight was taking my History of Algebra class to Kansas City for a tour of the Linda Hall Library and a chance to view rare influential books that had an impact on the history of algebra. I love my job and working with such wonderful students and colleagues!

For scholarly activity this year, I continued a project from my last sabbatical, writing articles about "Mathematical Treasures at the Linda Hall Library" for the online journal *Convergence*. <http://www.maa.org/press/periodicals/convergence/mathematical-treasures-at-the-linda-hall-library> One of the articles was then mentioned in a LHL Scientist of the Day article on Maria Agnesi. <http://www.lindahall.org/maria-gaetana-agnesi/> The original article that was published at the first of the year, contained 14 mathematical treasures. Five more were just published this summer and I am continuing to work on more. Also, my first Euler translation project passed peer-review (<http://eulerarchive.maa.org/pages/E474.html>) and I started work on a second one as a collaboration with a student at Quest University in British Columbia, Canada. Dr. Thuong and I have also been working on a follow-up article to our article on Ancient Indian Rope Geometry in the Classroom, found at <https://www.maa.org/press/periodicals/convergence/ancient-indian-rope-geometry-in-the-classroom>.

Service-wise I continue as the public information officer/webmaster/newsletter editor for the Kansas Section of the Mathematical Association of America. I am starting an unprecedented third term as a member of the Board of Editors for the MAA Classroom Resource Materials series as the "chief editor in training." 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 it is 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. In April, I was elected as the National Historian for Kappa Mu Epsilon. Closer to home, I 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, and I have been serving as an online course reviewer for PSU, reviewing several courses each year.

In the spring, I was surprised to be contacted by the President of the Mathematical Association of America and asked to be a "face of MAA". My picture and testimonial appeared in the May/June issue of the MAA *Focus*, <http://digitaleditions.walsworthprintgroup.com/publication/?i=406584&ver=html5&p=15>.

I sure enjoy hearing what all of you are doing, whether it be through Facebook, LinkedIn, or some other means. (In case you didn't know, there is a Facebook group called "Pitt State (Kansas) Math Alumni".) It is wonderful to hear how well so many of our alumni are doing in their careers and personal lives. Please continue to keep in touch and to stop by the department anytime you are in town. Once a Gorilla, always a Gorilla!



## Dr. Ananda Jayawardhana

Since the last Newsletter was published I have visited Sri Lanka once. Recently my wife and I celebrated our 25th wedding anniversary. I have not tried my chances with the local casino yet but most of the department members dined together one evening at the casino restaurant.

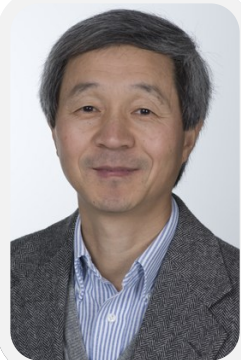
I taught a class for University of Kansas Medical Center last fall and this summer. Online masters degree program for which I teach classes at KU Edwards Campus/KU Medical Center is growing very fast. I attended the Biostatistics Symposium at KU and a short course during the symposium. I participated in the organization of the first Statistics Career Day in Kansas City (STAT-KC) in November 2016. I coordinated the local statistics poster competition but the response from high schools was not as good as it has been in previous years.

I am serving as the President of the national statistics honorary society Mu Sigma Rho for the 2017-2019 term. I am the past-chair of the American Statistical Association Council of Chapters Governing Board in 2017. I participated in grading AP Statistics exams in June. It was exciting to see Adam Bennett from Joplin High School at the grading.

I continue to teach the same courses. Teaching for KU has opened my eyes for a lot of new technology. I took a Quality Matters online course this summer to be a better online instructor. I continue to teach the same courses but this summer I taught a business statistics course for the Kelce College of Business. I plan to add more Bayesian methods to my future classes.



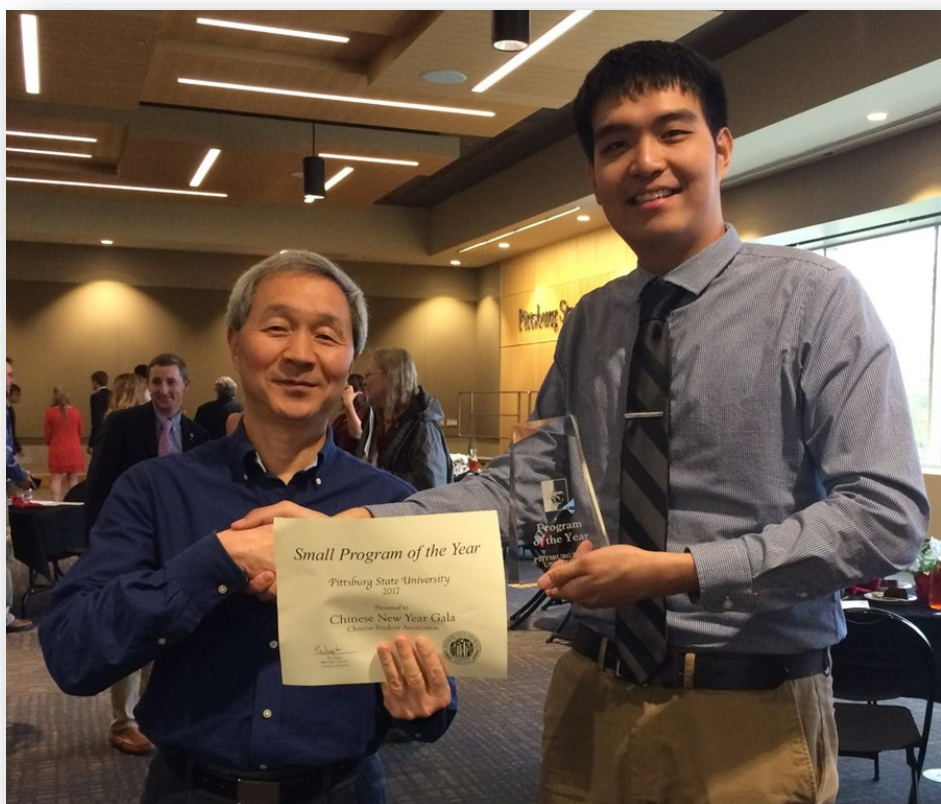
Retiring math instructor George Kaemmerling, his wife Linda, and daughter Ida. Members of the department joined together to thank George for his service at a local restaurant.



## Dr. Yaping Liu

In the newsletter last year, I mentioned that I was working on a teaching project on developing laboratory exercises for students in the newly implemented class Engineering Calculus II. The project went well and the class was offered for the first time in fall 2016. We developed a sequence of 10 parallel projects (20 total) for electronics and mechanical engineering technology students. A computer lab manual using the software SageMath was also compiled. This class will be offered in fall of 2017 again with a much bigger enrollment.

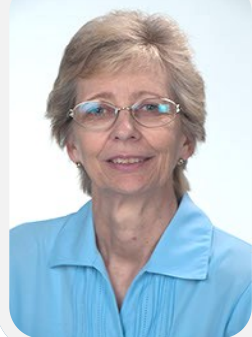
I still have a lot of service responsibilities. In particular, I was the faculty advisor for two student clubs during the last academic year. The Chinese New Year Gala hosted by the Chinese Student Association this spring was a big success and was awarded the Program of the Year (small) by Campus Activities. In addition to providing guidance and working with the students in organizing the event, I also played a small role in one of the performances: the narrator for a play.



As the departmental graduate coordinator, I'll again report on the number of master's students we have produced. From July 2016 to July 2017, seven graduate students have successfully finished their classes and research, passed the master's comprehensive exams, and received their master's degrees.

That's all for now. Talk to you next year, if not earlier.

Dr. Liu accepting the Small Program of the Year Award from PSU Campus Activities.



## Mrs. Terry Martin

I was given the honor of Mace Bearer for the College of Arts and Sciences graduation in May 2017.

The 50th annual Pitt State Math Relays is scheduled for April 10, 2018. This past April we had 1099 students participate.

I continue to serve as faculty advisor for Campus Christians and as a board member for Countryside Christian School. This past spring a new men's Christian fraternity was formed at PSU. The name is Chi Omicron Rho, and I am also the faculty advisor for it.

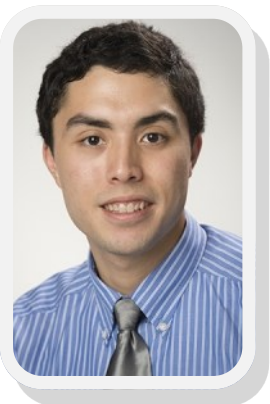


## Mr. David Newcomb

It has been 10 years that I have been a full-time instructor in the Mathematics Department at Pittsburg State University. It continues to be a challenging and fulfilling experience. Preparing for the variety of courses that I teach (Quantitative Reasoning, Mathematics for Elementary Education, Calculus I, and Mathematics Education Seminar) keeps 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.

This summer my wife and I continued some of our standard activities. We completed a few projects around the home, including shingling the garden shed/playhouse and doing some dirt work by the pond. We worked on some lawn mowers, including Dr. Huffman's Cub Cadet. We helped at our son-in-law's Tailwind Cyclists bicycle shop. We went on a few camping trips. We took care of a nice garden with green beans, potatoes, tomatoes, okra, and squash. There are still a few cantaloupes and watermelons that are doing well. We attended two family reunions, one in Wichita and the other in Fall River. We got in several bicycle rides around the area. We will be helping with the 2017 Gorilla Century over Labor Day weekend.

I hope everyone has a wonderful 2017/2018 academic year at Pitt State.



## Dr. Scott Thuong

This year I've continued to teach my usual courses, as well as direct a couple of master's research projects in analysis and topology. Though trained as a topologist/geometer, I must say that real analysis is quickly becoming one of my favorite classes to teach! A paper submitted last year, "Metrics on 4-dimensional unimodular Lie groups", appeared in the Annals of Global Analysis and Geometry. I'm working on several other research projects, including one with Dr. Huffman on the geometry of the ancient Indians, a sequel to our 2015 MAA Convergence article.

I am glad to have Dr. Childers's help in coordinating the KME/Math Club meetings.

Much appreciation to the volunteers who agreed to speak at our meetings! In April, Dr. Childers, Dr. Huffman, and I took 3 students to the KME National Meeting held at Evangel University in Springfield, MO. Two of those students presented and received a top paper award. Eventually they hope to submit the paper for publication. This was my first year co-coordinating the Kansas Collegiate Math Competition, held at KU this past April. It is certainly an enjoyable challenge to cook up problems appropriate for the competition.

I'm continuing as webmaster, so if you have any suggestions for the department webpage, feel free to shoot me an E-mail! Have a great 2017-2018 academic year!



## Dr. Bobby Winters

I am continuing to serve as Associate Dean of the College of Arts and Sciences with the additional duty of being acting chair of the Department of Physics. So I will happily be able to spend some more time at Yates. Jean and I are enjoying our roles as grandparents of Joshua (4) and Luke ( $t$  for  $1/12 < t < 1$ ). I've been spending a good deal of time recently redoing my analysis notes.

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

Dr. Bryan Dawson is the alumnus highlighted in this edition of the PSU Mathematics Department Newsletter. Dr. Dawson was born in Texas but grew up in Parsons, KS, just 35 miles from PSU. He graduated with a BS from PSU with majors in mathematics and computer science in May 1986 and an MS in mathematics December 1987. His first full-time job after PSU was to implement a Statistical Process Control (SPC) program (job title: technical analyst) at the Kansas Army Ammunition Plant in Parsons, May 1987 to August 1988. Skills used on the job that he learned at PSU included a knowledge of statistics, mathematical modeling, and programming (in a Lotus 1-2-3 spreadsheet). Then, after his wife Martha (Kirkley) Dawson graduated from PSU (BSN, May 1988), Bryan returned to graduate school at the University of North Texas, finishing a Ph.D. in 1992. Dr. Dawson has three children. His son Matthew followed in his father's footsteps earning a Ph.D. in mathematics and recently joining the Mérida branch of Centro de Investigación en Matemática (located in the Mexican state of Yucatán) as a Cátedra (professor).

Dr. Dawson is currently University Professor of Mathematics and a former department chair at Union University in Jackson, TN. In addition to the usual professorial duties, he has been part of a



*Dr. Bryan Dawson, mathematics professor, Union University*

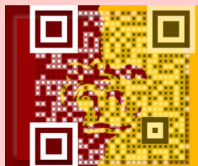
consulting team working for a retinal surgeon that invents golf training aids as a hobby. His part of the consulting involved a knowledge of geometry as well as multivariable calculus and algorithm development. The team has been granted three US Patents. He has published articles in MAA journals (Math Horizons, College Mathematics Journal, and one recently accepted to the American Mathematical Monthly). His latest research involves nonstandard analysis and teaching calculus using infinitesimals, and he has begun writing a calculus textbook.

Dr. Dawson shared the following, “My time at PSU was very enjoyable, with such great characters as professors, student involvement in KME and in the Baptist Student Union, and meeting a cute nursing student who became my wife and lifelong companion. My advice for students is to be diligent and do the boring stuff, every day, even when you don't feel like it. Read the textbooks (I always read the relevant section in the textbook before the lecture!) and complete the homework assignments on time, every time. By doing so you can overachieve compared to your natural abilities, rather than underachieve!”

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