

## Message from the Department Head

Summer brings with it a chance to reflect on the past academic year and prepare for the coming year. At the moment, nearly every corner of West Lafayette is under construction, so there's not much point in venturing outside anyway!



Dept. Head Greg Buzzard

The members and alumni of the Mathematics Department continue to make a difference in many walks of life. This year, the American Mathematical Society made that official by selecting the National Math Alliance as the recipient of their 2017 Mathematics Programs that Make a Difference Award. The Math Alliance began as an NSF-funded program at the University of Iowa with the goal of increasing the number of underrepresented minorities in doctoral programs in the mathematical sciences. In the spring of 2016, this program moved from Iowa to Purdue, where it received generous support from the College of Science and the Office of the Provost. With Professor David Goldberg as the new Director, the Alliance has continued to serve the mathematical community by mentoring rising seniors through the process of applying to graduate school and through the early stages of graduate school and by hosting a conference that brings together potential graduate students with representatives of graduate programs across the US.

More generally, many of our faculty, students, and alumni have received high-profile recognition for their research and teaching. This year alone, our faculty distinctions include two AMS Fellows, a Sloan Fellow, a University Faculty Scholar, a College of Science Research Award, an NSF CAREER Award, and a Fellow of the Purdue Teaching Academy. Our students have been no less active. One of our undergraduate majors was the first Purdue student selected as a Truman Scholar, another received a Goldwater Scholarship, and a third received the G.A. Ross Award, given to only one outstanding undergraduate man at Purdue each year.

We also welcomed back to campus alumni who have distinguished themselves in business and academia, as well as a large number of external speakers in a wide variety of seminars. One event that stands out was a lecture by Margot Lee Shetterly, author of the bestselling book *Hidden Figures*. With support from several other departments, the Colleges of Science and Engineering, and the Black Cultural Center, we hosted Ms. Shetterly for a day filled with engaging meetings with students and faculty members, capped by her lecture to a packed Loeb Playhouse.

These events and accolades and more are described in greater detail in this newsletter and on our web page. I hope you'll take a moment to check in with all that's happening and take a moment to let us know of milestones or other events in your own lives and careers.

**A**lumni and Friends, help us keep in touch with you by e-mailing your contact information to [purduealumni@purdue.edu](mailto:purduealumni@purdue.edu).

Send us your news by contacting the Administrative Assistant to the Head, Kristi Stroud at [kstroud@purdue.edu](mailto:kstroud@purdue.edu). We would love to hear from you.

Keep up to date on our department all year by visiting <http://www.math.purdue.edu/news>

Learn more about supporting Mathematics at Purdue at <http://www.math.purdue.edu/giving>

## Mathematics Alliance receives AMS Programs That Make A Difference award

The National Alliance for Doctoral Studies in the Mathematical Sciences (the Mathematics Alliance) was chosen to receive the 2017 Mathematics Programs that Make a Difference Award from the American Mathematical Society (AMS).

This award aims to recognize successful programs that bring more people from underrepresented backgrounds into the professional mathematics pipeline - from undergraduate programs to professional success. The AMS awards chooses its awardees for this honor from letters of recommendation and preference is given to programs with significant participation by underrepresented minorities.

The Math Alliance is honored "for its programs over the last 10 years promoting participation by groups underrepresented in doctoral programs in the mathematical sciences."

William McCallum of the University of Arizona, who served as chair of the award selection committee, said: "The Math Alliance shows what can be achieved when the community takes seriously the promise of equal opportunity for all mathematicians. By building a network of mentors and students united by their dedication to mathematics and to increasing diversity in the field, this program is having a strong positive effect that will continue for years to come. The AMS is very happy to recognize the Math Alliance with the Mathematics Programs that Make a Difference Award."

The main purpose of the Math Alliance is to ensure that students from underrepresented groups who have the ambition and desire to pursue graduate study in the mathematical sciences have an opportunity to do so in a supportive environment. The alliance helps students realize their potential for graduate work in these fields and nurtures them in their journey to becoming math science professionals.

Now based at Purdue University, the Math Alliance began in 2001 as a partnership of three Iowa State Regents universities and four Historically Black Colleges and Universities and has grown into a national network of institutions and faculty that mentor minority students in undergraduate and graduate programs. The Math Alliance has received support from the National Science Foundation since 2002.

The Alliance has expanded its network 30-fold over the last 10 years and has recently been used as a model for a similar program in physics by the American Physical Society.

The ultimate goal of the Math Alliance is to spark a spiritual transformation within mathematical sciences departments as they progress away from the traditional model of weeding students out and towards embracing an inclusive model of helping all students succeed.

Mathematics Alliance: <https://www.mathalliance.org/>

## Prof. Stefanov receives 2017 College of Science Research Award



Prof. Plamen Stefanov

Prof. Plamen Stefanov received the 2017 College of Science Research Award. His talk entitled "Local Boundary Rigidity" was presented during the award ceremonies in late February.

The awards are open to top mid-career and senior level faculty members and researchers in the college, recognizing impactful research measured by the impact of their work and the

involvement of graduate students.

Prof. Stefanov's research is in analysis and applied analysis; most recently in the field of Inverse Problems and applications of microlocal analysis.

In particular, his most recent work is focused on mathematical inverse problems arising in various medical imaging methods, geometry, seismology, radar imaging and cosmology.

Also being honored with 2017 College of Science Research Awards were Prof. Yulia Pushkar (Physics and Astronomy) and Prof. Darryl E. Granger (Earth, Atmospheric, and Planetary Sciences).

## “Hidden Figures” author presented talk for Martin Luthor King Jr. event

Author Margot Lee Shetterly, whose book “Hidden Figures” inspired one of the breakout movies of 2016, gave a talk at Loeb Playhouse to a packed house in January.



Margot Lee Shetterly

Shetterly has also established The Human Computer Project, an endeavor that is recovering the names and accomplishments of all of the women who worked as computer scientists, mathematicians, scientists and engineers at the National Advisory Committee for Aeronautics and NASA from the 1930s through the 1980s.

“Hidden Figures” showcases the talents of the women of the segregated West Area Computers division of the Langley Research Center,

concentrating on the trio of mathematicians, Katherine Johnson, Dorothy Vaughan and Mary Jackson. Their work was integral in the space race era and helped fuel projects Mercury and Apollo.

“In many circles their role has been all but forgotten, but their story is compelling and well worth hearing and sharing,” said Department of Mathematics head Greg Buzzard. “Ms. Shetterly’s appearance at Purdue provides us a glimpse into the lives of these fascinating women and into her role in sharing their story.”

Her visit was sponsored by Department of Mathematics and the College of Science, College of Engineering, Graduate School, Black Cultural Center, Department of Mathematics, Department of Statistics, Department of Computer Science, School of Mechanical Engineering, School of Electrical and Computer Engineering, and School of Aeronautical and Astronautics.

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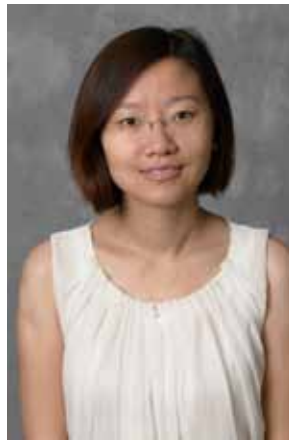
## Prof. Hu receives CAREER Award

Prof. Jingwei Hu is the recipient of a Faculty Early Career Development (CAREER) Award from the National Science Foundation (NSF) for her project “Predictive Simulations of Complex Kinetic Systems.”

The NSF CAREER award is considered one of the most prestigious for promising researchers in science and engineering.

Prof. Hu’s project aims to build an integrated program of research and education focused on advances in predictive simulations of complex kinetic systems. The research objective of this project is to develop highly efficient stochastic and multiscale numerical methods for Boltzmann-like kinetic equations.

A parallel educational objective is to create innovative opportunities for all students to improve science, technology, engineering, and mathematics (STEM) education and promote career interest in these disciplines, especially among female students.



Prof. Jingwei Hu

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## Professors Donatella Danielli and Jie Shen named AMS Fellows

Congratulations to Prof. Donatella Danielli and Prof. Jie Shen on being selected for the 2017 class of AMS fellows.

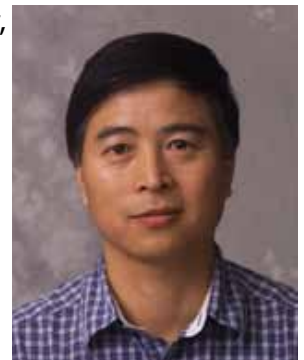
The Fellows program of the American Mathematical Society (AMS) is designed to recognize members who have made outstanding contributions to the creation, exposition, advancement, communication, and utilization of mathematics.

Prof. Donatella Danielli was cited for her contributions to partial differential equations and geometric measure theory, and for service to the mathematical community.

Prof. Jie Shen was cited for his contributions to theoretical numerical analysis, scientific computing, computational fluid dynamics, and computational materials science.



Prof. Donatella Danielli



Prof. Jie Shen

## Faculty promotions

Several faculty members in the Mathematics Department were promoted this past year based on outstanding research and teaching accomplishments.

**Edray Goins** was promoted from Associate Professor to Professor. His research focuses on number theory, with an emphasis on elliptic curves.



Prof. Edray Goins

The associated set of ideas played a key role in the proof of Fermat's Last Theorem, and this area continues to be fertile ground for new discoveries.

Prof. Goins is a dedicated mentor and has supervised dozens of undergraduate research projects as well as several graduate students.

He serves as president of the National Association of Mathematicians and is a national leader in promoting

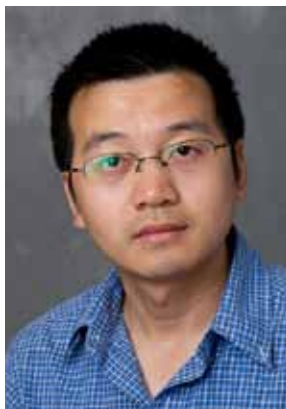
greater diversity in the mathematical sciences.

He currently runs an NSF supported Research Experience for Undergraduates (REU) program at Purdue called Purdue Research in Mathematics Experience (PRiME)

**Peijun Li** was promoted from Associate Professor to Professor.

Prof. Li works in applied and computational mathematics with an emphasis on modeling, analysis and computation of direct and inverse scattering problems for acoustic, electromagnetic, and elastic media.

Some of his most influential work is in near-field imaging, which uses an analysis of the interaction of waves with objects smaller than wavelength to go beyond the usual diffraction limit in microscopy.



Prof. Peijun Li

Prof. Li is currently supported by an NSF CAREER Award.

**Jianlin Xia** was promoted from Associate Professor to Professor. He works in the area of computational linear algebra, which is foundational for a great many computational methods in science and engineering.



Prof. Jianlin Xia

He has analyzed special structures in linear problems arising from partial differential equations and other applications in order to develop algorithms that are significantly faster than previous methods without sacrificing stability or accuracy. His work has a quickly growing set of applications, including to

geophysical imaging.

Prof. Xia is currently supported by an NSF CAREER Award.

**David Gepner** was promoted from Assistant Professor to Associate Professor.

His research is in homotopy theory, a quickly growing branch of algebraic topology. Roughly, this means trying to use algebraic (discrete) objects to describe geometric shapes. Homotopy refers to the ability to continuously deform an object (stretch or bend but not tear), and the goal is to determine algebraic descriptors that don't change with these deformations.



Prof. David Gepner

Prof. Gepner is in demand as a speaker throughout the US and Europe.

He is currently supported by a grant from the NSF.

*Faculty promotions cont. on page 5.*

## Faculty promotions continued

**Guang Lin** was promoted from Assistant Professor to Associate Professor. He is a prolific author, with over 80 journal articles focused generally on providing quantitative descriptions of uncertainty as a function of uncertain variables.



Prof. Guang Lin

His work applies to analyzing systems with large stochastic input dimension, methods for applying Bayesian inference in linear time on large-scale problems, methods for handling discontinuities and multimodal distributions, methods for understanding uncertainty in network dynamics, and various applications.

Prof. Lin is currently supported by an NSF CAREER Award.

**Jonathon Peterson** was promoted from Assistant Professor to Associate Professor. He works in the area of probability, with a focus on stochastic processes, which are used as models in a variety of areas from basic science to finance.

A simple stochastic process would be to flip a coin and move right on a head and left on a tail.

Prof. Peterson's work extends this to more complex processes, in which the probability of a head or tail may depend randomly on the current position.

Together with Prof. Goins, he runs the NSF supported REU program PRiME.



Prof. Jonathon Peterson

For more information about the Purdue Research in Mathematics Experience (PRiME) REU program see the website: <http://www.math.purdue.edu/people/bio/egoins/PRiME.html>

## Faculty retirements

**Brad Lucier** joined the Purdue faculty in 1981 and worked throughout his career on various aspects of applied and computational mathematics.



Prof. Brad Lucier

In the late 1980's he and his collaborator Ron DeVore did some of the first work on wavelets and their applications to image and surface compression. Related work led to a compression algorithm for mammograms that had a 50-to-1 compression ratio and that led to better diagnoses than those made

using the original image.

Prof. Lucier also played an important role in the departmental computing infrastructure and regularly used a number of innovative teaching techniques, including giving quarters for asking questions in class, holding evening office hours, and coaching students through significant programming projects in numerical PDE.

**Richard Penney** joined the Purdue faculty in 1971. His research focused on group representations and harmonic analysis on groups, with many high-profile publications over the span of several decades.

He made many contributions to our educational mission, including founding the Purdue Math Club, chairing the undergraduate committee for many years, and writing books on linear algebra. His efforts earned him several teaching awards.



Prof. Richard Penney

Prof. Penney was also director of our actuarial science program for more than 15 years; leading that program to top national rankings and the cusp of being named a Center of Actuarial Excellence.

*Faculty retirements cont. on page 6*

## Faculty retirements cont.

**Allen Weitsman** joined the Purdue faculty in 1968. His research was in complex analysis.



Allen Weitsman

He was recognized with a Sloan Fellowship and an invited address at an Annual Meeting of the American Mathematical Society and led over the years to a distinguished publication record.

Prof. Weitsman served the department in many ways, including as Associate Head for several years. In that role, he managed the large and

complex teaching operation of the department. During those years he played a key role in making an important transition in the way that classes were scheduled.

## Prof. Kenney inducted into Purdue's Teaching Academy

Prof. Rachael Kenney, Associate Professor in the Departments of Mathematics and Curriculum and Instruction, was inducted into Purdue's Teaching Academy during the 2016 Teaching Academy Day symposium.



Prof. Rachael Kenney

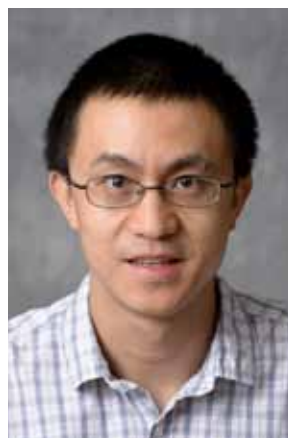
The Teaching Academy sponsors programs and activities fostering educational creativity, innovation, and effectiveness both inside and outside the classroom.

Fellows of Purdue's Teaching Academy are scholars committed to the continual improvement of teaching and learning at Purdue.

Previously named fellows from the Department of Mathematics include Prof. Steven Bell and Prof. Johnny Brown. Prof. Robert Zink is an emeritus fellow of the Teaching Academy.

## Prof. Li receives 2017 Sloan Research Fellowship

The Department congratulates Prof. Chi Li who has received a 2017 Sloan Research Fellowship. This is a two-year, \$60,000 fellowship awarded by the



Prof Chi Li

by the Alfred P. Sloan Foundation that recognizes the most promising early-career researchers today.

Prof. Li joins 125 other early-career scholars in other science disciplines who were also awarded fellowships this year by a selection committee of distinguished scholars in their fields. Candidates are tenure track professors in the United States and Canada

who have recently received their PhD in a qualifying field. Fellows are selected on the basis of their independent research accomplishments, creativity, and potential to become leaders in the scientific community through their contributions to their field.

This fellowship has been recognizing promising scholars since 1955 and many fellows have gone on to be awarded other distinguished awards including 43 Nobel Prizes, 16 Fields Medals, 69 National Medals of Science, 16 John Bates Clark Medals, and numerous other distinguished awards.

## Prof. Birgit Kaufmann named University Faculty Scholar

Prof. Birgit Kaufmann, associate professor of mathematics and physics, was named a 2016-2017 University Faculty Scholar.

The University Faculty Scholars Program recognizes outstanding faculty members at the West Lafayette campus who are on an accelerated path for academic distinction. Eligible faculty must hold the rank of tenured associate or full professor and have been in that rank for no more than five years.



Prof. Birgit Kaufmann



During the Spring 2017 semester our instructors Joe Chen and Tim Delworth participated in Feasting With Faculty. This program, sponsored by the College of Science, gives “swipes” to faculty members for our resident hall dining courts so they can invite students to lunch (or dinner). This program fosters connections outside the classroom and helps students perceive faculty members as approachable.

## Prof. Feng’s research featured

Prof. Zhilan Feng’s work with co-researchers in Sweden and the Center for Disease Control on the rates of infection of pertussis, also known as whooping cough, was selected as a feature for the 2015-2016 Office of the Executive Vice President for Research and Partnerships (EVPRP) Annual Report.

“Unraveling the Math of Disease Immunity” explores how Prof. Feng and her collaborators devised a way to calculate rates of infection by age.

Their results showed that children, adolescents and young adults had higher infection rates than older people.

“I believe that our results are very important in terms of understanding this disease,” Feng says. “And that this kind of work can provide useful information for policy makers in identifying critical groups for vaccination.”

EVPRP Annual Report: <http://www.purdue.edu/research/publications-data/>

## Sandra Hansen named Bruce Helfert Memorial awardee

Sandra Hansen, a junior studying actuarial science and math education, has received the 2017 Bruce Helfert Memorial Award.



Sandra Hansen

This award is given to an outstanding junior in the College of Science or College of Engineering who demonstrates both academic excellence and social concern. The Helfert Family established the Bruce Helfert memorial Award in memory of their son, Bruce, a physician, who graduated from Purdue’s College of Science in 1964.

Hansen is junior from Homer Glen, Illinois and interned this summer at Trustmark Companies in Lake Forest, Illinois.

## Mathematics major Mikaela Meyer named a 2017 Truman Scholar.

Mikaela Meyer, a junior studying mathematical statistics has been named a 2017 Truman Scholar. She is the first Boilermaker to ever be selected for this honor.



Mikaela Meyer

in public service leadership.

The Harry S. Truman Foundation awarded this scholarship national to 67 college juniors demonstrating leadership potential and a commitment to public service.

They will receive a \$30,000 scholarship toward graduate school and the opportunity to participate in professional development programming

“Mikaela has tremendous potential to be a leader at the crossroads of statistics and public service. She is excellent in every regard: in her research investigations, in her leadership for the College Democrats, and in her academic performance in the Purdue Statistics Living Learning Community,” said Mark Ward, associate professor of statistics and head of the living learning community’s National Science Foundation grant.

Meyer is also a policy fellow with the Purdue Policy Research Institute. Together with other fellows, she is measuring the progress of states toward “NetZero” energy status and has assisted in researching and writing a policy brief on drone technology.

She received with the other Truman Scholars in a ceremony at the Harry S. Truman Presidential Library and Museum in May.

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## Junior Alan Min receives national Goldwater Scholarship

Alan Min has been named a 2017 Goldwater Scholar. The highly-competitive scholarship recognizes undergraduates who are already conducting research in their fields and show great promise for the future.

This scholarship awards up to \$7,500 toward tuition, fees and board to sophomores and juniors seeking research careers in science, mathematics or engineering.

Min, of West Lafayette, Indiana, is a Junior studying mathematics, statistics and computer science in the College of Science. He aspires to enhance the world’s quantitative understanding of molecular scale interactions. Specifically, Min hopes to fight disease using math and computer science techniques to model proteins involved in genetic modifications.

Students who pursue Goldwater Scholarships participate in a campus-wide nomination process.



Alan Min

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## Graduating Senior, Peter Boyd, receives Purdue’s G.A. Ross Award.

Peter Boyd, was chosen as this year’s Purdue’s G.A. Ross Award winner. The prestigious award recognizes an outstanding graduating senior man who demonstrates high standards of academic achievement, outstanding leadership, strength of character and contribution to Purdue. (The Flora Roberts Award is given to the outstanding senior woman.)

Boyd, from St. John, Ind., graduated in May with majors in applied statistics, actuarial science, mathematical statistics and mathematical statistics with a math emphasis and a minor in management.

He is Stamps Scholar and was a member of the Honors College’s Honors Leadership Council, involved in Mortar Board, Purdue Student Government, Student Organization Grant Allocation Board, and the Honors Mentor Program, among other activities.



Peter Boyd



## Kelly Kramer named the 2017 Distinguished Alumna in Mathematics

Kelly Kramer is Executive Vice President and Chief Financial Officer (CFO) at Cisco, was named the 2017 Distinguished Alumna. She graduated from Purdue University with a bachelor of science degree in mathematics in 1989.



Kelly Kramer

As the Cisco CFO, Kramer manages the financial strategy and operations of a company with more than 73,000 employees and total revenue for fiscal year 2016 of \$49.2 billion. She is committed to maximizing long-term shareholder value, ensuring a balanced portfolio of growth initiatives, and maintaining the high level of

integrity and transparency for which Cisco is known.

Previously, Kramer was Senior Vice President of Business Technology and Operations Finance, partnering with the Development organization across business groups, segments, and operations

on strategic long-range planning, budgeting and forecasting, new-offer development, as well as the analysis and strategy of product pricing. In addition, her organization managed finance for the company's supply chain, marketing, corporate communications, operations, HR, and IT groups.

Kramer joined Cisco in 2012 as Senior Vice President of Corporate Finance. Prior to Cisco, she was Vice President and Chief Financial Officer of GE Healthcare's Healthcare Systems business. During her 20 years with General Electric she held other CFO roles including CFO of GE Healthcare Biosciences, a division in Life Sciences and Molecular Diagnostics. She also worked in GE's Corporate Headquarters, Transportation Systems and Aerospace divisions. Kramer has extensive experience in financial planning and analysis, profit-and-loss leadership, and mergers and acquisition.

Kramer serves on the Board of Directors and Audit Committee for Gilead Sciences. She is also a member of the Board of Directors for the Silicon Valley Chapter of City Year.

## Paul Schultz named Outstanding Alumnus in Actuarial Science.

Paul Schultz was named the 2016 Outstanding Alumnus in mathematics. Schultz is a 1996 graduate with distinction of Purdue University's Actuarial Science program. He became a Member of the American Academy of Actuaries in 2000 and attained his Fellowship of the Society of Actuaries in 2001.

Schultz is the Chief Actuary for Blue Cross/Blue Shield of Vermont (BCBSVT), a non-profit health insurance company doing business in the nation's second-smallest state.

Prior to moving to BCBSVT in 2013, he spent over a decade working with Medicare Part D – the national prescription drug program for seniors – in a number of capacities, from consulting with think tanks working to design the program to creating an



Paul Schultz

insurance company subsidiary at a pharmacy benefit manager in order to offer employer group Part D coverage.

After three summer internships during his time at Purdue, Schultz started his career in the Pittsburgh office of Towers Perrin (now Willis Towers Watson), blending the skills he learned in his internships with the pension and health & welfare lines of business to specialize in retiree medical benefit design and valuation. He continued that specialization with Mercer in Pittsburgh, where he served as a regional resource for retiree medical consulting with large employers.

Schultz has served the actuarial profession in a number of volunteer capacities, including several years on the committee writing and grading one of the group health fellowship exams, as well as stints on the American Academy of Actuaries Medicare Steering Group and Joint Committee on Retiree Health.

## Mark Brissman named Distinguished Alumnus in Actuarial Science.

Mark Brissman, Regional Director & Actuary Aon Global Risk Consultants (AGRC), Dallas, Texas, was named the 2017 Distinguished Actuarial Science Alumnus.



Mark Brissman

Brissman earned his Bachelor of Science in Biology and Mathematics at Purdue University. He then continued on to earn his Master of Science in Industrial Administration from the Krannert Graduate School of Management. He was awarded the Chartered Property & Casualty Underwriter (CPCU) designation after passing

a series of 10 examinations on insurance contracts, coverages, and laws. He became a designated actuary as an Associate of the Casualty Actuarial Society as well as a member of the American Academy of Actuaries. In 1993, he was awarded his Fellowship earning the Fellow of the Casualty Actuarial Society designation.

Currently, Brissman is the Regional Director and Actuary at AGRC in Dallas, Texas. In this position, he is responsible for overseeing a team that delivers actuarial analyses and deliverables for clients' self-insurance policies, providing staff peer reviews to ensure compliance, and assisting in the overall strategic planning for the practice. AGRC is a large firm with many clients consisting of Fortune 500 companies. He also serves as AON's national practice leader for predictive analytics.

## Dr. Sheldon Ross named 2016 Mathematics Outstanding Alumni.

Dr. Sheldon M. Ross, the Epstein Chair Professor of Industrial and Systems Engineering at the University of Southern California was named the 2016 Outstanding Alumnus in mathematics.

His talk, delivered during the Outstanding Alumnus festivities, was entitled "Friendship Paradoxes and a Friendship Model."

Prof. Ross received his bachelor's degree in mathematics from Brooklyn College in 1963 and his master's degree in mathematics from Purdue University in 1964. In 1968 he earned his Ph.D. in statistics from Stanford University.

He was a professor at the University of California, Berkeley, from 1968 until becoming the Epstein Chair Professor at University of Southern California in 2004.

## Alumna chosen as Knowles Science Teaching Foundation Fellow

Alumna Kate Wooley-Brown was chosen by the Knowles Science Teaching Foundation as a member of its 2016 cohort of Teaching Fellows. Program fellows are early-career, high school mathematics and science teachers.

In 2008 she earned her BS in physics and mathematics from



Kate Wooley-Brown

A prolific author, he received the Saul Gass Expository Writing Award in 2006 from the Institute of Operations Research and the Management Science for his many textbooks on probability, stochastic processes, and their applications, that are influential in the teaching of these subjects and act as foundational texts and essential references.

In 1978, Prof. Ross proposed the so-called "Ross's Conjecture" of queuing theory. He conjectured that customers arriving independently but at an average rate that varies over time will experience higher average waiting times than customers in a comparable queue for which the average arrival rate remains unchanged over time, and provided a lower bound for their average waiting time. It was solved three years later by Tomasz Rolski at Poland's Wroclaw University.

Purdue University in 2008 and a Master of Arts in physics from Harvard University in 2012.

This fall, she will begin her third year of teaching at Brookline High School where she teaches physics. Why physics? "I enjoy that physics at the conceptual level is quite accessible to students. It builds and challenges their everyday understanding of phenomenon while also teaching them reasoning and math skills."



During a January 2017 luncheon the College of Science and the Department of Mathematics honored recipients of the Professional Achievement Award and staff members with notable years of service.

Pictured from left to right: Professional Achievement awardees Phil Mummert (Assistant Head), Shaun Ponder (Business Assistant) and Stephanie Foster (Undergraduate Services Coordinator); Mathematics Department Head, Gregory Buzzard; and Interim College of Science Dean, Craig Svensson.

## Staff Changes

This last year saw several staff departures. The department thank these staff for their years of service and wish them well.

**Julie Morris**, retired in October. Julie joined the department in 1999 and was involved in many aspects of the department as an administrative assistant, including conference organization and support for the actuarial science program.

**Betty Gick** retired in late December after 25 years with our department. Betty worked in the main office for most of those years, moving to the 4th floor a year ago. Throughout her time here she provided technical typing and other clerical support.

**Terri Kepner** left in late March after almost 10 years as the Main Office Secretary. Terri acted as the primary point of contact for the department and provided additional support to the Elementary Service courses.

As some staff depart, others come on board.

**Alicia Schragg** joined the Department in May as the Business Manager for Mathematics & Statistics. She previously was with Forest Hills Financial, Inc., where she managed finances and logistics, among a variety of other activities.

**Anna Hook** started in January as the Administrative Assistant providing support to the Actuarial Science Program and conferences. Anna came to us from the Department of Statistics, where she was the Graduate Coordinator.

**Beth Howard** joined us in April as the new business office clerk. Beth previously worked for Anderson's Clymers Ethanol in Logansport as a grain buyer.

**Patricia Huesca** was hired in June as the new Main Office Secretary. Patty previously served our department as a temporary technical typist on the 4th floor. Prior to coming to our department, Patty worked at Sunnyside Middle School in Lafayette.