

DR. ALFONSO AGNEW



Dear Alumni Students and Emeriti,

I hope you are all navigating this challenging year successfully. The Math Department at CSUF certainly has been doing so! I couldn't be prouder of how we have stuck together to continue the tradition of quality instruction and student-centered scholarly activity that each of you have helped to establish.

I would like to present to you our first Alumni/Emeriti newsletter as part of our efforts to strengthen communication and camaraderie with our extended CSUF Math family. I sincerely hope you enjoy it. Although

we are down to only two staff members nowadays(!), I hope you agree that our newer staff member Abe Roldan has done a splendid job on the newsletter on top of his other duties.

There is a lot to catch up on, so this first newsletter will be quite full of information. You will hear about faculty being honored across campus and beyond, several faculty and student publications across all the subdisciplines, our four(!) new assistant professors, an alumni spotlight, a donor spotlight, and donation information.

As the State navigates the economic fallout of the pandemic, more and more of this activity, and the student opportunities they generate, rely on the generous support of alumni and emeriti like you. As the end of the year and tax season approaches, please keep us in mind for donations to our student research and scholarship programs.

Also, donations to the Math Department fund are always very helpful, as we can use the resources wherever the need is most pressing. Information on how to donate (and clickable links) are included in the newsletter, but feel free to reach out to me personally if it is more convenient or if you have any questions. Whether large or small, all contributions (like a Riemann sum!) combine to help the department make a truly significant difference in the lives of our students.

I hope you have a pleasant and satisfying holiday season involving all that is meaningful to you.

Sincerely,

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ALUMNI NEWSLETTER

The latest news and updates from the CSUF Mathematics Department



TUFFY REMINDS YOU TO KEEP YOUR #MASKSUP AND HELP PREVENT THE SPREAD OF COVID-19

IN THIS ISSUE

**RESEARCH, ARTICLES,
CONFERENCES &
PRESENTATIONS**

**FACULTY RECOGNITION &
AWARDS**

**ALUMNI SPOTLIGHT:
OSCAR CASTILLO**

**NEW MATHEMATICS
FACULTY**

FUTURE EVENTS

**DONOR SPOTLIGHT:
DR. & MRS. DELAND**

**CONTRIBUTE TO THE
DEPARTMENT**

Research, Articles Conferences & Presentations

Amid a global pandemic, the Mathematics Department's faculty and student researchers have been working hard conducting research, writing articles, and presenting at virtual conferences.

Among the most noticeable research done by our faculty includes the work of Drs. Derdei Bichara and Sam Behseta and their [rethinking of approaches to predict the spread of COVID-19](#). Bichara's extensive research on mathematical modeling of infectious diseases combined with Behseta's knowledge of creating statistical models in human biological studies has prepared them to devise new mathematical approaches to understand how government policies and human behavior can help predict the spread of COVID-19.

The faculty has also been busy conducting research with faculty in other academic departments on campus. Dr. Alison Marzocchi, Mathematics Associate Professor, along with Dr. Patrice Waller, Secondary Education Assistant Professor, recently published an article titled "[From Rules that Expire to Language that Inspires](#)" in the National Council of Teachers of Mathematics Journal, *Mathematics Teacher: Learning and Teaching* PK-12. Their work highlights that math teachers can foster student agency by using inspiring language in their classrooms.

Dr. David Pagni, Mathematics Professor, has also collaborated with faculty in other academic departments and members of the local community. Dr. Pagni along with Dr. Andrea Guillaume, Elementary and Bilingual Education Professor Emeritus, and Naseem Mandalia, Anaheim Elementary School District Curriculum Specialist, offered a 5-day Leadership Institute for 57 teachers of mathematics in grades K-8 from June 15-19, 2020. The Institute featured both synchronous and asynchronous daily professional development activities. The Institute hosted teams from 32 schools and 11 school districts.

Thanks in large part to donations from former faculty and alumni, undergraduate students were also involved in research throughout the Summer. Thanks to the Mathematics Summer Research Program (MSRP) and the associated DeLand Summer Research Fellowships, nine student researchers conducted paid research under the mentorship of faculty supervisors. It is this summer program which seeds undergraduate research activity (presentations, publications, further research) for the entire academic year. Its value to the students and the department cannot be overstated. Some of the research topics for this past summer include *Root-Finding Algorithms for Matrix-Valued Functions via Orthogonal Polynomials*, *Barley Lake Hiatus Estimation*, and *An Analysis of Heuristic Strategy and Perfect Plan on the Game Clobber* among others.

For a full list of academic work done by our faculty, emeriti, alumni and students go to page 4.

Faculty Recognition & Awards

Awards

On July 27, 2020, Mathematics faculty, Drs. Adam Glessner, Matthew Rathbun, Bogdan Suceava, along with Mathematics alumna, Isabel Serrano '18, received the 2020 George Pólya Award from the Mathematical Association of America (MAA) for their exceptional article titled, "[Eclectic Illuminism: Applications of Affine Geometry](#)".

The George Pólya Award is given to articles that exhibit expository excellence. The reception of George Pólya Award to our faculty comes almost 30 years after Drs. William Gearhart and Harris Schultz received the award in 1991. You can view their acceptance of the George Pólya award on the MAA [website](#).



TOP ROW: DR. ADAM GLESSNER & ISABEL SERRANO '18
BOTTOM ROW: DR. MATTHEW RATHBUN & DR. BOGDAN SUCEAVA



DR. CHERLYN CONVERSE

She's also an active member and speaker with the California Mathematics Council and Orange County Mathematics Council. In addition to teaching several courses, she serves as a faculty mentor to help guide students to success. Congratulations to Dr. Converse!

In May 2020, Mathematics Professor, Dr. Cherlyn Converse, received the CSUF Outstanding Lecturer Award. Dr. Converse deserved this award for multiple reasons. She has been instrumental in her efforts to redesign the University's liberal arts mathematics sequence for non-STEM majors to understand the fundamentals of mathematics. She's been consistently involved with CSUF's GEAR UP program which has helped junior high and high school students in the surrounding communities to spark a college-going culture.



DR. ROBERTO SOTO

In August 2020, Dr. Roberto Soto, assistant professor of mathematics, received the CSU-wide [Faculty Innovation and Leadership Award](#). Dr. Soto has been recognized at the CSU level for developing teaching practices that aim to close achievement and equity gaps in math, especially for women and underrepresented students. Dr. Soto is credited for his creation of faculty professional development workshops that have proved to increase student success in precalculus and calculus.

Dr. Soto not only has been tapped to provide professional development workshops for math professors among several CSU campuses but also to math professors in universities across the country. Dr. Soto's professional development workshops are effective because he assists professors to adopt evidence-based and equity-oriented teaching practices. Congratulations to Dr. Soto!



MS. ASHLEY THUNE-AGUAYO

In April 2020, Ms. Ashley Thune-Aguayo received the College of Natural Sciences and Mathematics Outstanding Lecturer Award. Professor Thune-Aguayo is actively involved with the Mathematics Department's Teaching Associates and Part-Time Faculty in developing their mathematical and pedagogical skills. She also serves as the Supplemental Instructor Faculty Liaison for the Department. Her work not only has contributed to the professional development of our faculty but also the academic success of mathematics and non-mathematics students. Congratulations to Professor Thune-Aguayo!

Contd. from page 1:

Faculty & Alumni Research

Mathematics professor, Dr. Adam Glessner, and Mathematics alumna, Heather Stemen '19, teamed up to write the the article "Further Explorations of Unimodular Roots". The article has been accepted for publication in the journal *Elemente der Mathematik*.

Thomas Freeze M.A. '16, Applied Math, along with Dr. Tien Nguyen, Research Adjunct Professor, and Dr. Charles Lee, Mathematics Professor, worked together to write the book chapter "System-of-Systems Enterprise CONOPS Assessment Decision Support Tools". The book chapter is set to be published in the book titled "Systems-of-Systems Engineering, Modeling, Simulation and Analysis," Intech|Open Publisher, in 2021. The chapter presents the work done in 2018 by CSUF graduate student team for Math 597, Industry Collaboration Project, led by Dr. Charles Lee. Thomas Freeze was the student lead at the time.

Faculty Emeriti & Student Research

Mathematics undergraduate student, Madeline Ceccia, and Mathematics Professor Emeritus, Dr. Martin (Marty) Bonsangue co-wrote the article, "Fibonacci Gaps,". The article will appear for publication in the Spring 2021 issue of the peer-reviewed journal *MathAMATYC Educator*.

Faculty, Student, & Intercollegiate Research

Mathematics professor, Dr. Roberto Soto's, article "[Peg Solitaire in Three Colors on Graphs](#)" was recently accepted by "Involve: A Journal of Mathematics". The article should appear later this year. The research article was co-written with Mathematics senior Sonali Vyas, alumnus and graduate student Gustavo Sopena '20, Melissa Wong '19, and Dr. Tara Davis and her student Alexxis De Lamere from Hawaii Pacific University.

ALUMNI SPOTLIGHT

OSCAR CASTILLO

MATH TEACHER, SOUTH EL MONTE HIGH SCHOOL

B.A. MATHEMATICS '02 (TEACHING MATH)



WHAT DID YOU ENJOY ABOUT BEING A MATHEMATICS STUDENT AT CSUF?

Cal State Fullerton was a very inclusive campus during my years at the University. The campus atmosphere was very welcoming and friendly. My professors were very inspiring, and I felt that they cared about the students. I never felt like a number or body in the classroom, but a member of the math department. Getting a B.A. in Mathematics from Cal State Fullerton was one of the best decisions that I made in my life.

HOW HAS EARNING A MATHEMATICS DEGREE HELPED YOUR CAREER?

When I graduated from CSUF, I enrolled in the teaching credential program. After completing the teaching credential program, I had the blessing of applying to at least seven schools for a math teaching position. I felt that I had the opportunity to choose the school where I wanted to teach. I didn't feel the pressure of accepting certain teaching jobs because there were so many opportunities for math teachers. I chose the best school that offered the best salary, better benefits, and most importantly, the best support for new teachers. I can proudly say that after 18 years, I made the best decision in choosing the school where I currently teach. If I want to apply to another school for a math teaching position, I feel confident that I will not have any problems finding another job.

WHERE ARE YOU WORKING AT NOW? WHAT DOES YOUR WORK DUTIES CONSIST OF? WHAT WORK ACCOMPLISHMENTS ARE YOU PROUD OF?

I currently teach Mathematics at South El Monte High School. Throughout my 18 teaching years at South El Monte High School, I have been involved in many academic projects and extracurricular activities. I have been part of the Western Association of Schools and Colleges (WASC) accreditation team for two consecutive cycles where we got a six-year clear accreditation the first time and a five-year accreditation with a one-time visit during the third year. I have coached the girls' and boys' Varsity soccer teams as well as the Junior Varsity teams. I also coached Cross Country, Track and Field and have been the kicking coach for the football team. Each year, I take the Cross Country team to Mammoth for one week where we camp and train at an altitude of almost 9000 feet. I feel blessed that many of my colleagues have supported me or helped me to take a group of almost 30 students to the beautiful Mammoth Lakes.

I have been the class advisor for the 2006 and 2016 classes. I am also the Associated Student Body/Leadership Class teacher. I am the Academic Decathlon coach and have been coaching the team for three years. Our school didn't have an Academic Decathlon team for almost seven years and my assistant principals and the principal, Mrs. Lopez, Dr. Morales, and Dr. Avina, offered me the opportunity to coach the team. In our first year, we obtained third place in Division 3 and we obtained the School Rookie of the Year. We also won 25 individual medals and placed 23rd overall in the Los Angeles County of Education area. Last year, we obtained 17 individual medals and placed 20th overall. My goal for this year is to place again in the top 20. My biggest success as an educator is that no one fails in my classes. My students enter my classroom knowing that all of them are going to be successful in passing my class. The struggling students have the opportunity to retake assessments and to turn in the late assignments until they reach a C-grade or better. The B-students or A-students are going to be fine on their own, but not the F-D students. My goal is to bring the lower level students to get a C-grade or better. This is the vision that is also shared by my principal Dr. Morales and my assistant principal Mrs. Lopez and has supported me unconditionally

WHAT ADVICE DO YOU HAVE FOR CURRENT MATHEMATICS STUDENTS AND RECENT GRADUATES NAVIGATING THE JOB MARKET?

The best advice that I will give any future Mathematics students is to continue to pursue their goals in life. Having a Math degree will open doors in the job market even when it doesn't feel like it. Keep an open mind and be flexible. Try your best in school but also have fun. So far, I made a great decision in attending CSUF where many of my former students are attending. I always speak very highly of the Titan School where it felt like a second home when I was there.



**CALIFORNIA STATE UNIVERSITY
FULLERTON**

New Mathematics Faculty

Despite the COVID-19 pandemic, the Mathematics Department hired four new full-time faculty members. Those faculty members include: Dr. W. Riley Casper, Dr. Kristin Kurianski, Dr. Stephanie Reed, and Dr. Shoo Seto.



FROM LEFT TO RIGHT: DR. STEPHANIE REED, DR. SHOO SETO,
DR. KRISTIN KURIANAKSKI, & DR. W. RILEY CASPER

Dr. Stephanie Reed

Dr. Reed is an applied mathematician whose research interests are stochastic processes, probability and interacting particle systems and their applications in econophysics, epidemiology, and sociology among other fields.

Dr. Shoo Seto

Dr. Seto's main research interests are in geometric analysis, differential geometry, and partial differential equations. He is also proactive in mathematical outreach

Dr. Kristin Kurianski

Dr. Kurianski is an applied mathematician with research interests in mathematical modeling, wave-type phenomena, and numerical simulations of physical systems.

Dr. W. Riley Casper

Dr. Casper's research focuses on the interactions between noncommutative algebra, algebraic geometry, and integrable systems with applications to special functions. He is also interested in numerical methods in geophysical fluid dynamics.

Future Events

- January 8, 2021: Problem Solving Seminar - Dr. Bogdan Suceava
- January 22, 2021: Problem Solving Seminar - Dr. Thomas Murphy
- Spring 2021 (TBD): Virtual Alumni Social Event



Donor Spotlight: Dr. & Mrs. DeLand

Paul DeLand, an emeritus professor and chair of mathematics and his wife, Sara, have pledged an annual \$5,000 fellowship over five years (\$25,000 total) to support the Math Summer Research Program (MSRP). Created several years ago in the Department of Mathematics to provide faculty-mentored research opportunities for our students, this recent gift from Paul and Sara DeLand will create the DeLand Mathematics Fellowships to provide annual support to fund students participating in the MSRP. The DeLand's gift will lessen the financial burden on our students, create opportunities to develop oral and written communication skills, enhance graduate school or workforce preparedness, and lead to a more robust research infrastructure in the department. On average, the MSRP, sponsors 15 students and 10 faculty members. Private support is instrumental to create access for our students to participate in MSRP.



DR. PAUL DELAND

Contribute to the Department

There are many different opportunities to support the Mathematics Department and its students. Use the links below to learn more about donating to various funds associated with the Mathematics Department:

- [70302 \(Department of Mathematics\)](#): To support the greatest needs in the Mathematics Department
- [70303 \(DeLand Mathematics Fellowship\)](#): To support the DeLand Mathematics Fellowships
- [70314 \(Stiel Prize for Excellence in Mathematics Endowment\)](#): To support an annual scholarship to an exceptional math student as selected by Mathematics faculty.
- [70340 \(Math Scholarship Account\)](#): Funds provide scholarships, awards, and gift for scholars in the Math Department.
- [70347 \(Mathematical Circle\)](#): To support research and testing activities in in Mathematics.
- [70348 \(Gerald Gannon Fund\)](#): To support a graduate scholarship for a student enrolled in the Master of Arts in Teaching program in the Department of Mathematics.
- [70300 \(Project MISS\)](#): For discretionary use by Project MISS (Mathematics Intensive Summer Session).

Planned Gifts

Planned and Estate giving provides another avenue for supporting the Department, often with beneficial tax implications. If you're interested in learn more, please visit the [CSUF Planned Giving](#) site or reach out to us to have a conversation.