

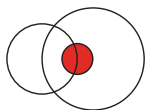


THE UNIVERSITY OF ARIZONA

College of Science

**GALILEO CIRCLE
2021 & 2022 AWARDS**





The Galileo Circle

Nurturing the Future of Science

GALILEO CIRCLE AWARDS 2020 & 2021

Galileo Circle Awards are made possible by the generosity of our Galileo Circle members. These awards recognize some of the college's most exceptional faculty and staff and are one of the highest honors the college can bestow.

Galileo Circle Fellows

Galileo Circle Fellows are the College's most distinguished faculty. They have a deep understanding of a broad range of science, a willingness to think in a truly interdisciplinary way, and an ability to inspire colleagues and students alike.

Galileo Circle Curie Award

The Galileo Circle Curie Award was created for the "rising-stars" among junior tenure-track faculty in the College of Science. Their innovative work advances science and adds diversity within the scientific community.

Galileo Circle Copernicus Award

The Galileo Circle Copernicus Award recognizes the extraordinary accomplishments of College of Science non-tenure-eligible faculty or staff. The efforts of these individuals significantly advance the mission of their department and the knowledge base of their discipline.

Galileo Circle Postdoc Award

The Galileo Circle Postdoc award was created for the substantial and invaluable contributions postdocs make to the research, mentoring, and outreach missions of both the College and University.

2022 GALILEO CIRCLE FELLOW

Stephen Kobourov, Ph.D.

Professor, Computer Science
Associate Director of the Data Science Institute



- Stephen's research is in the broad areas of visualization and algorithm design and analysis. His grant funding totals 10 million dollars, which is extremely high for someone doing theoretical work in computer science.
- Just a couple (of many) significant contributions Stephen has made to his field include:
 1. Stephen used anonymized mobile phone data to show that it is too easy to invade one's privacy just using the now infamous phone call data records. This work was used to lobby the US Government for changes in privacy protection and contributed to new data protection laws.
 2. Stephen detailed the analysis and visualization of over 3.5 million food-related tweets. Used algorithm engineering knowhow to process, analyze, store and query millions of tweets in the early days of "big data" which allowed thousands of non-experts to query and visualize the data.
- Stephen's mentoring of undergraduate students led the College of Science to create the Distinguished Student Mentoring award, which he was the first recipient of last year. He has also won several significant awards including a National Science Foundation CAREER award and being named a Fulbright scholar twice.
- Stephen has over 250 collaborators on five continents and has done significant public outreach. Most notably organizing the 2018 College of Science lecture series "Humans, Data, and Machines" and giving the first lecture.

2021 CURIE AWARDEE

Michael Marty, Ph.D.

Associate Professor, Chemistry & Biochemistry
Assistant Professor at the BIO5 Institute



- Michael is one of the top young analytical chemists in the country and has gained national and international stature for his revolutionary work in studying biological materials. He uses nanodiscs mass spectrometry to study protein and protein lipid interactions and how small molecules can affect those interactions.
- Michael has established himself as a leader in this area and has made what has been characterized by some as the most significant measurement advances for native membrane protein analysis. In addition to developing these capabilities, he has also focused on applying them to solve truly significant, high impact biological problems.
- Michael has established a vibrant and diverse research group that has been successful in publishing and winning departmental awards. He has a terrific track record in mentoring students at all levels and has provided leadership in the department and across campus that isn't normally seen in faculty at the early stage of their careers.
- The significance and quality of Michael's work has been validated by multiple external national and international experts who have pointed out his outstanding accomplishments and the fact that he is establishing an entirely new area of scientific research.

2021 CURIE AWARDEE

Nicole Marrone, Ph.D., CCC-A

Associate Professor, Speech, Language & Hearing Sciences

- Nicole is an internationally recognized leader and sought-after scholar in the areas of adult hearing loss, cognitive function, and hearing health care models, especially for under-served populations including those along the U.S.-Mexico border.
- Nicole's community outreach has been described by her peers as "well beyond what most full professors ever accomplish." Most notable is her program, Living Well with Hearing Loss, and its Spanish counterpart, Oyendo Bien. These programs provide education, support, and evidence-based communications strategies as part of a holistic approach to rehabilitation for hearing loss.
- Nicole contributes to four academic programs within the department and provides a mix of lecture, interactive discussion, and service-learning opportunities to engage students with the hearing loss community, while educating them in the scientific principles of the field.
- Nicole has become one of the most influential figures in rehabilitative audiology worldwide. She is recognized as one of the top scholars driving the paradigm shift of audiology to complement the diagnostic/device-focused aspect of the profession, to one that is community-serving and concerned with public-health initiatives.



2021 CURIE AWARDEE

Laura Condon, Ph.D.

Assistant Professor, Hydrology & Atmospheric Sciences

- Laura is a hydrologist working to better define the role of groundwater in earth system dynamics. Her work has brought the U of A to the forefront of national hydrologic modeling and investigations of water sustainability.
- The amount of funding Laura has garnered and the impact her research has already had on critical water issues within our state, nation and globally is truly remarkable. Her ability to lead large, collaborative projects involving faculty across campus, and with other universities and international and industrial partners is almost unheard of for faculty at her early career stage.
- In addition to gaining international prominence in her field, Laura is a passionate and gifted educator. She is recognized for her considerable effort to innovate her department's curriculum, build a large, diverse research group, and educate the broader public.
- Laura is rapidly becoming an international leader in continental-scale water sustainability, specifically the role of groundwater in sustaining streamflow and vegetation, and impacts to groundwater from climate change, pumping and land use change. These issues are critical to Arizona and the US Southwest, as well as other arid regions worldwide.



2022 CURIE AWARDEE

Kate Isaacs, Ph.D.

Assistant Professor, Computer Science

- Kate was hired as faculty straight out of a 4.5-year Ph.D. program and put forward a powerful record without any postdoctoral experience. She has as an almost unprecedented funding record for a junior faculty member, with a total well over 2 million dollars.
- Kate's work is a blend of pragmatic domain-specific technical advances in data visualization and related tooling combined with serious efforts to better understand how end users conceptualize the data and their visualizations.
- Kate has bridged the gap between performing research that is deep, but inclusive of user feedback. The result allows users to understand their code more easily, which in turn leads to fast and accurate programs.
- Kate advocated for the need of the Human-Computer Interaction course that she then designed and taught several times. Needed from a technical perspective it is also an important contribution to the department's diversity, equity, and inclusion (DEI) mission by serving a more diverse student base than most computer science courses.



2022 CURIE AWARDEE

Elisabeth Krause, Ph.D.

Assistant Professor, Astronomy and Physics

- Elisabeth's transformational research focuses on the intersection of observational and theoretical cosmology. She is known for pioneering the use of multiple techniques to better understand the Universe.
- Elisabeth is a talented and committed educator who holds formal appointments in both Astronomy and Physics. Elisabeth is a role model for women in both fields and shows that they can excel in their career.
- Elisabeth's accomplishments and potential have already been recognized by numerous awards that are incredibly competitive at the national or international level and has earned strong financial support for her research.
- Still early in her career, Elisabeth is already an exceptional scientist firmly established as an international leader in the field of cosmology through her central role both in developing the theoretical tools for and in her scientific leadership of the Dark Energy Survey (DES). She has also reestablished the department as a leader in the field, critical to our continued leadership in the space sciences.



2022 COPERNICUS AWARDEE

Donna Krawczyk

Senior Lecturer, Mathematics

- For twenty-five years, Donna has played a monumental role in shaping the calculus education offered to undergraduates at the University of Arizona and has provided outstanding and innovative leadership.
- Donna has a remarkable ability to get inside the heads of new instructors. She is a genius at knowing what instructors need, and in providing advice in a timely and unobtrusive way.
- At the level of the individual student, Donna is legendary in her ability to convert math skeptics into math aficionados or even into math majors, by truly understanding her students' thought processes, and by having the skill to intervene.
- Donna is a tireless innovator. She was using group work and creating interactive classrooms before most faculty discovered either one. She piloted the use of computer algebra systems. She is the department's most agile WebAssign programmer. Well before the pandemic, she responded to the needs of students at a distance by teaching the calculus sequence online. Her goal is always to do better for our students.



2022 COPERNICUS AWARDEE

Lisa Rezende, Ph.D.

Associate Professor of Practice, Molecular and Cellular Biology

- Within MCB, Lisa directs Undergraduate Assessment and Integration, directs Online Education, and recently developed their new undergraduate certificate.
- Lisa teaches extensively at multiple levels. She is a mentor for new teachers, creates new courses, and coordinates the department's faculty learning community for introductory biology.
- Lisa also has a robust research program that focuses on student learning through implementation and tracking of outcomes in active learning, and additionally involves work in cancer patient advocacy. She is constantly refining methods for evaluating student success and working to implement positive change.
- Lisa serves the community extensively on research, outreach, DEI, and instructional committees. She is regularly an invited speaker at workshops throughout the country and is also on national advisory boards and steering committees.
- Lisa's nomination letter states, "Lisa is absolutely exemplary in her efforts at scholarship and research, teaching and student learning. She is a leader and sets an example for all faculty at the university."



2021 COPERNICUS AWARDEE

Brooke Massani, Ph.D.

Director of Research Support Services in the Chemistry & Biochemistry

- Brooke was hired in 2018 to oversee the establishment and operation of the W.M. Keck Nano-Scale Imaging Center, a campus-wide resource that enables hundreds of scientific manuscripts to be published and is an invaluable resource during grant proposal preparation and management.
- Brooke champions her team above her own personal interests, looks out for the welfare of both the staff members and the various facilities they run, and plays an integral role in supporting the research mission in the College and across campus.
- Brooke has had a significant outreach footprint, bringing science to the regional professional community and to the children and youth in and around Tucson. She holds positions in numerous societies and provides tours and demonstrations for K-12 organizations and community colleagues.
- Brooke embodies all the desirable qualities of a high caliber colleague, team member, manager, and scientist. She leads, always keeping the welfare of her team in mind, has deep technical knowledge that she uses to create new national resources on campus, and provides leadership on campus.



2021 COPERNICUS AWARDEE

Peter Brewer

Curator of Collections, Laboratory of Tree-Ring Research

- Peter is admirably serving in what is arguably the most important position within the Laboratory of Tree-Ring Research, and for the international tree-ring community.
- The majority of his teaching and mentoring contributions stem from Peter's supervisory roles to students and staff employed within the curation program, as well as educating U of A students, post-docs and beyond, on data management and archiving.
- Peter brought together individuals, ranging from dendrochronologists to computer scientists, from more than 10 countries to initiate and create the Tree Ring Data Standard (TRiDaS). This serves as the international language for all tree-ring sub disciplines and is used by dendrochronology labs across the world.
- Peter's expertise, collaborative mind-set, and abilities to both lead and contribute to team endeavors have made him an extremely prominent partner within regional, national and international communities. He has a crucial educational role as part of all his outreach activities.
- When he became curator, Peter has impressively brought in over \$2.4 million in new grants and put those funds to excellent use by greatly expanding upon the scope, range, magnitude, and efficacy in the Laboratory of Tree-Ring Research's curation program.



2021 POSTDOC AWARDEE

Amanda Garcia, Ph.D.

Postdoctoral Research Associate, Molecular & Cellular Biology*

*Amanda has since moved to the University of Wisconsin Madison and is continuing her work with Dr. Betül Kaçar.



- Amanda joined MCB's Kaçar Astrobiology Laboratory as a recipient of the prestigious and internationally competitive NASA Astrobiology Postdoctoral Fellowship. This was the first time the MCB department had hosted a postdoc with this fellowship, and it is the first time in over 10 years for U of A.
- Amanda is one of the very few scholars in the world to study molecular biology after holding a Ph.D. in Geology. Her goal is to understand how the environment and life have co-evolved over billions of years by developing experimental systems.
- Amanda is pioneering a new field in astrobiology, combining paleobiology, geology and evolutionary molecular biology by studying resurrected ancient enzymes involved in biogeochemical cycles of early Earth.

2022 POSTDOC AWARDEE

Melissa Flores, Ph.D.

Postdoctoral Research Associate, Psychology



- Melissa is unique in that her major focus is on quantitative methods and that she applies that focus to understanding Latino health and health disparities in unique ways that are advancing the field. She is a key bridge to our community partnerships focused on improving the health of the Latinx community in Southern Arizona.
- Melissa is fluent in quantitative and qualitative approaches and a wide range of statistical software programs. While many learn statistics and can apply them with effort, Melissa is the rare early career professional who naturally thinks in a statistical voice.
- Melissa is part of significant funding, mentoring, and teaching at U of A. Melissa is developing into a professional who can bridge fields in a complementary, multidisciplinary manner consistent with team science. She is productive, innovative, and will be a leader in the next generation of health disparities scientists.
- In Melissa's nomination letter, her mentor states "she is amongst the strongest research-oriented trainees I have had the opportunity to observe and mentor in my 17 years as a faculty member."

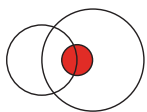
2022 POSTDOC AWARDEE

Stefano Nerozzi, Ph.D.

Postdoctoral Research Associate, Lunar and Planetary Laboratory

- Stefano's research and efforts to engage others directly contributes to the mission of the Lunar and Planetary Laboratory, and the University of Arizona, to be a world leader in space sciences. His work addresses important questions regarding the geological and climate history of Mars.
- Stefano is very active in teaching and mentoring. He encourages his students to engage with the broader scientific community. He trains them to form scientific questions to guide research and is frequently seen in the lab with them optimizing methodological approaches and discussing results.
- Stefano also engages in public outreach and community service, both for the science community and the community at large. He is sought after as a reviewer for many journals and has served on multiple NASA review panels. He served as a Science Mentor for 6th grade students at Sahuarita Middle School for a science project involving the design of a habitable planet. His commitment to engage young people is quite evident.
- Stefano has excelled in every regard, showing extraordinary motivation and initiative to obtain external funding, publish, mentor students, collaborate with partners both internally and externally, and perform community outreach.





The Galileo Circle

Nurturing the Future of Science

For more information on the Galileo Circle:
science.arizona.edu/galileo-circle