Mason SCIENCE

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Wednesday, March 8, 2023 **science.gmu.edu**

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Mason Science's worldwide collaborations to solve global problems

by Fernando Miralles-Wilhelm

One of George Mason University's greatest strengths is its diversity. Our collection of interconnected scientists and scholars create a globally focused ecosystem where large scale curiosity, exploration, and problem solving can take root and thrive.

When our College of Science pledges to take on global challenges, we mean it. In the past few weeks, Mason scientists have published biodiversity research findings tied to a multi-decade partnership with Brazilian scientists to address species loss in Amazon forests. I recently welcomed a science and policy delegation from Kenya, Senegal, and South Sudan for a two-week UN Environmental Programme workshop to map and monitor the natural resource capital in Africa using remote sensing data. We trained a delegation from the World Bank on impacts of climate change and solutions to food, energy and water problems across countries in Africa. We announced the collaboration of a Mason scientist partnering with a National Science Foundation funded domestic team and CSIRO, Australia's National

Science Agency to mitigate bias in AI-powered modeling and prediction of disease spread for pandemic prevention and response.

In addition, one of our faculty members just learned the exciting news that she will participate in the prestigious Simons Emmy Noether Fellowship program at the Perimeter Institute in Waterloo, Ontario Canada. There she will join an international cohort to support and encourage early and mid-career women and all under-represented groups in physics. And this week, we host a workshop discussing climate resiliency planning with research and regional development practitioners from both Virginia and Stuttgart, Germany.

I too took on a global leadership role last year when, in addition to serving as Mason's College of Science Dean, I served as a Senior Research Advisor to NASA's Minority University Research and Education Project (MUREP), focused on enhancing research activities carried out by underrepresented groups in STEM across NASA's portfolio in earth sciences, space exploration and societal benefits.

Do you ever wonder why organizations choose Mason scientists to successfully lead and foster global collaboration across a multitude of domains?

Read full message



Mark your calendar for the College of Science Strategic Planning Initiative Town Hall in April

Please join us on **Thursday, April 6, 2023, from 1 to 2:30 p.m. EST** for a Strategic Planning Town Hall. We officially began the planning process in the fall, where many across the Mason Science community participated in interviews, focus groups, and a survey, to share perspectives on our College's direction for the future.

During this town hall, we will:

- Review key insights from stakeholder outreach activities,
- Provide updates on our progress and a timeline for the remainder of the process, and
- Engage in open dialogue to gain your perspectives and insights on the direction of the strategic plan.

We look forward to engaging with you on April 6 at 1 p.m. in 3301 Exploratory Hall on the Fairfax campus with light refreshments and cookies. A Zoom link will be available for those who may not be able to participate in person and a recording will be shared after the meeting.

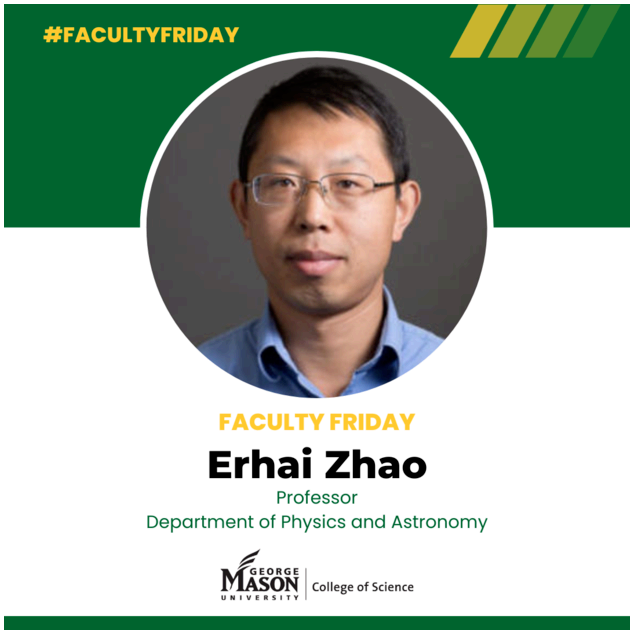
Volunteers needed for College of Science Degree Celebration 2023

by Melissa Hayes



This year's Degree Celebration is scheduled for **Friday, May 19, 2023, at 10 a.m. in the EagleBank Arena**. The college has more than 600 graduates this year; **your participation** is important to them and their families as they commemorate this achievement in their academic career. We need your help. A staff volunteer meeting will be held via Zoom on **Wednesday, May 10, 2023 at 2 p.m.** Your participation will be greatly appreciated. Email to volunteer at cosevent@gmu.edu. *Photo by Ron Aira/Creative Services.*

Volunteer information



#FacultyFriday highlights physics and astronomy professor

We kicked off our Department of Physics and Astronomy spotlight with this past week's #FacultyFriday featuring Professor Erhai Zhao. Dr. Zhao is a theoretical physicist with a research interest in quantum matter. Specifically, solids, fluids, or gases that exhibit counter-intuitive behaviors on the macroscopic scale due to quantum mechanical effects. For example, ultracold quantum gases, which are about one trillionth to one billionth degree above absolute zero temperature, are trapped and manipulated by laser light to serve as quantum simulators to address open questions in quantum many-body physics. View the original Instagram post.

See recent faculty highlights



Mason-led research team honored for neuron database

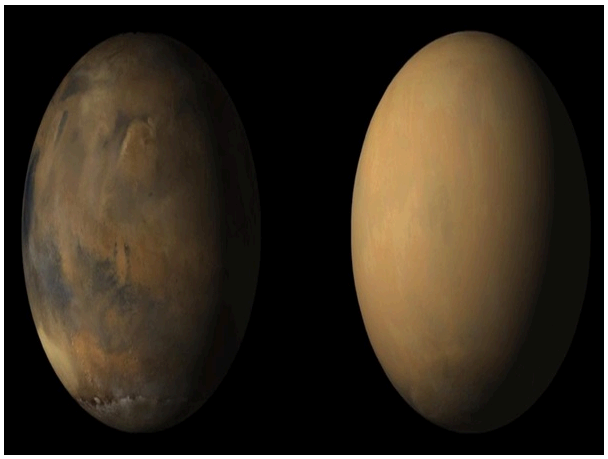
by Office of University Branding



The George Mason University team behind NeuroMorpho.org has been honored for its work by the Federation of American Societies for Experimental Biology (FASEB) and the Office of Data Science Strategy at the National Institutes of Health (NIH).

The team—Giorgio Ascoli, founding director of the Center for Neural Informatics, Structures, and Plasticity and professor of bioscience, along with postdoctoral research fellow Carolina Tecuatl and research assistant professor in Neuroinformatics Bengt Ljungquist—was one of four to earn the Distinguished Achievement Award from the DataWorks! Prize.

More on their work



Mason Scientist propels understanding of Mars with review of its whole atmosphere

by Laura Powers

Mars is one of the most studied planets in our solar system, second only to Earth. For the first time, Mason's Erdal Yiğit, associate professor in the Department of Physics and Astronomy pulled existing studies together in a single review to reveal Martian whole atmosphere couplings and interactions. His recently published article in *Nature Geoscience* reviews studies conducted on separate atmosphere layers and analyzes how those layers engage one another and the phenomena created from those interactions. Though a multitude of data exists about Mars, atmospheric coupling (bringing areas together to view interactions) is less explored and one Yiğit says is key to understanding the history of the planet. *Photo by NASA*.

Explore his review



Mason Scientist in new PBS series on the James Webb Space Telescope



by Jess Thomson

Newsweek recently highlighted the new PBS series NOVA special called *New Eye on the Universe* where scientists discuss how the James Webb Space Telescope is helping them find which exoplanets have atmospheres. Included is Mason astrophysicist, Hakeem Oluseyi who says in the documentary "all common sense of looking at how biology, chemistry, geology and physics work, would say no, we're not alone."

Read the full article

Happening at Mason

Support our muslim students and colleagues



This is the first time in several years that all of Ramadan and Eid fall during an academic semester, so we want to make sure we are all aware of ways that we can be supportive of our Muslim students' and colleagues' needs during this time. Please also keep AP.1.6.1: Absence for Religious Observances or Participation in University Activities in mind as you receive requests for excused absences to allow for religious observances.

Learn more

Particiate in a Mason Core Proposal Workshop

Mason Core Committee seeks course proposals for courses in the revised *Global Contexts* category and the new *Just Societies* flag. Course planning to run in the inaugural Fall 2024 semester will need approval by Fall 2023, so it's not too early to start. Join the Stearn's Center **March 9, March from 1:30 to 3:30 p.m., March 31 from 11 a.m. to 1 p.m. or May 9 from noon to 2 p.m.** for a review of the new



learning outcomes, a guide to the proposal process, and the opportunity to compose a first draft of your proposal and get some early feedback. See more about Mason Core courses or contact Mason Core for information. *Photo by Evan Cantwell/Creative Services*.

Register for the upcoming workshop

Events

Distinguished Faculty Mentoring Communities

March 9, 2023 | noon to 1 p.m. | Virtual

Tenured faculty passionate about and interested in mentoring new faculty are invited to participate in the first cohort of Professional Learning Communities Facilitators (PLCs) at Mason.

Working Moms Support Group

March 9, 2023 | noon to 1 p.m. | Virtual

The Working Moms Support Group is one way faculty, staff, and students can come together, discuss the issues confronting working parents, and spur changes on campus. The group is celebrating its 20th anniversary this spring. Meetings are a mix of in-person and virtual formats.

Coaching for Inclusive Excellence Learning and Development Program: Include U Bystander Intervention in the Academic Workplace

March 10, 2023 | 10 to 11:30 a.m. | Innovation Hall 427

The Office of Faculty Affairs & Development's Coaching for Inclusive Excellence (CoFIE) Program offers courses addressing strategies for recruiting, hiring, and retaining diverse faculty. If your unit wishes to schedule any of the CoFIE synchronous courses at other times or if faculty wishes to register for the Include U asynchronous course, email Millie Rivera. Don't forget to register.

Term Faculty Committee Call for Nominations

Deadline: Friday, March 10, 2023 | noon

The Term Faculty Committee is accepting nominations for a two-year term beginning in Fall 2023. To be considered for membership, email facaffs@gmu.edu with the subject line "Term Faculty Committee Nomination." Include a statement addressing the nomination criteria, your academic unit affiliation(s), and copy of your current CV.

UL Faculty Engagement Series 2022-2023: Justice, Education, Diversity, Inclusion

March 15, 2023 | 2 to 3 p.m. | SUB I 3B

Because Mason is Virginia's most diverse and largest public research university, we must take steps to make sure that every student experiences a sense of belonging and knows what resources are available on campus and how to access those resources. Join Dr. Creston Lynch, Assistant Vice President, University Life.

Mason Enterprise Center Open House

March 20, 2023 | 4 to 6 p.m. | 10300 Eaton Place, Suite 440 Fairfax, VA 22030

Mason Enterprise Center Fairfax has a new location, a new attitude, and the same amazing resources. Drop in and explore the new space and meet the MEC team from Mason's Office of Research, Innovation and Economic Impact.

SAVE THE DATE: College of Science Strategic Planning Initiative Town Hall

April 6, 2023 | 1 to 2:30 p.m. | Exploratory Hall 3301 or Virtual

See Full Calendar

Stay Connected

Read the College of Science's latest annual report

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