In this Issue

- Message from the Dean
- Mason Science Community
- Research & Discovery
- In the News
- Happening at Mason
- Events

A Bright Future for Women in STEM

by Fernando Miralles-Wilhelm

As we celebrate Women’s History Month, I can’t help but think back to the event I attended last semester sponsored by the college’s Women Leaders in STEM organization. The event topic: Imposter Syndrome – Finding One’s Fit. We also recently sponsored a Picture a Scientist documentary screening. Both discussed experiences and challenges female scientists face in the academic research environment.

As part of our commitment to advancing access, justice, equity, diversity and inclusion (AJEDI), this blog highlights the STEM journey and point of view from an interview with our own, Dr. Maria Emelianenko, Chair, Department of Mathematical Sciences.

I grew up in Russia, in a small scientific town called Dubna in the Moscow region where at least one of the parents in a typical family was a scientist or a teacher. Unlike many other places in Russia at the time, there were always international visitors in Dubna. There were kids from Bulgaria, Korea, and Czechoslovakia in my classes. We grew up appreciating foreign cultures and the power of science that crosses political and geographical boundaries. I was fortunate to travel throughout Europe as a teenager, both as part of school cultural exchange programs as well as for choir competitions. These
More on the event

trips were amazing opportunities to see the world in its diversity, grandeur, and splendor that lives side by side with poverty and pain.

By the time I graduated from high school, I had a passion for mathematics inspired by my father and a desire to contribute to solving technological and scientific challenges, but I also liked humanities and languages. I took the advice of one of my teachers who said I could never go wrong with applied mathematics, a discipline that unifies and connects all STEAM fields. Every theory, including the theory of languages, has mathematical logic and structure to it. It made me feel like I would have a set of powerful tools to tackle whichever problem or area I wanted to focus on and solve.

Encourage your students to participate in the twelfth annual College of Science Undergraduate Research Colloquium

All undergraduate students at Mason involved in STEM research are invited to participate in the twelfth annual College of Science Undergraduate Research Colloquium. Student presenters will create a research poster and submit it to the Colloquium by April 25, 2023. Students are welcome to present research performed at non-Mason sites or use posters developed for other conferences. Abstracts are due April 10, 2023 by 5 p.m. For questions, contact Dr. Rebecca Jones (rjones22@gmu.edu). The colloquium will take place virtually on Wednesday May 3, 2023, from 1:30 to 3:30 p.m.

Volunteers still 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 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

#FacultyFriday highlights physics and astronomy professor

Last week’s #FacultyFriday featured Dr. Ernest Barreto, Professor and Graduate Program Director, Physics and Astronomy. Barreto’s research is at the convergence of physics, mathematics, and biology. He is currently focusing on mathematically understanding the behavior of large populations of coupled oscillators, especially populations made up of simple mathematical models of neurons. View the original Instagram post.

Mason scientist studying the influence of structure and turbulence on coronal and heliospheric dynamics

by Elizabeth Grisham
Dr. Raphael Attie, Research Assistant Professor, Physics and Astronomy, is studying the influence of structure and turbulence on coronal and heliospheric dynamics. For this project, Attie will provide his expertise in processing photospheric data for the coronal modeling effort of Rohit Chhiber, Research Associate III, University of Delaware. In particular, Attie will provide and process line-of-sight and vector magnetograms from the HMI instrument onboard NASA’s Solar Dynamics Observatory (SDO). Photo by Ivana Cajina on Unsplash.

More on this study

IN THE NEWS

Suspected Iran schoolgirl poisonings: what scientists know

by Michele Catanzaro

Scientists are calling for a thorough and transparent investigation of a mysterious sickness affecting potentially thousands of Iranian schoolgirls. If a chemical was involved, a potential candidate would be chloramine, says Dr. Keith Ward, a chemist and affiliate faculty member in the School of Systems Biology at Mason, who has advised human-rights organizations in cases in which chemical and biological weapons have been used in conflicts. Demonstrators in Madrid highlight the plight of Iran’s schoolgirls. Credit: Diego Radamés/SOPA Images/LightRocket/Getty.

Suspected Iran schoolgirl poisonings: what scientists know

by Michele Catanzaro

Scientists are calling for a thorough and transparent investigation of a mysterious sickness affecting potentially thousands of Iranian schoolgirls. If a chemical was involved, a potential candidate would be chloramine, says Dr. Keith Ward, a chemist and affiliate faculty member in the School of Systems Biology at Mason, who has advised human-rights organizations in cases in which chemical and biological weapons have been used in conflicts. Demonstrators in Madrid highlight the plight of Iran’s schoolgirls. Credit: Diego Radamés/SOPA Images/LightRocket/Getty.

Read full Nature article

Happening at Mason

Mason comes together to address food insecurity on campus
Food insecurity is a pervasive, compelling problem for many university students, including at George Mason University. Mason Vision Day is an annual opportunity for the campus community to come together to identify and support a deserving initiative on campus. For this year’s event on April 6, 2023, Mason is turning its focus to food insecurity, working to support already-established initiatives and exploring other ways to alleviate student food concerns.

New Federal requirements for China, Russia and Venezuela

If you are shipping or hand carrying Mason laptops or equipment to China, Russia, or Venezuela, contact export@gmu.edu. Changes in the federal regulations require Mason to file such exports in advance with the U.S. Government. If you have any questions regarding this requirement or travel with Mason laptops and equipment, please email export@gmu.edu. Photo by Kari Shea on Unsplash.

Events

**Coaching for Inclusive Excellence Learning and Development Program: Strategies for Diverse Hiring**
March 23, 2023 | 1 to 2:30 p.m. | Virtual
The Office of Faculty Affairs & Development’s Coaching for Inclusive Excellence (CoFIE) Program offers courses addressing strategies for recruiting, hiring, and retaining diverse faculty. Below are the courses for the Spring of 2023. If your unit wishes to schedule any of the CoFIE synchronous courses at other times or if faculty wish to register for the Include U asynchronous course, email Millie Rivera. Don’t forget to register.

**Spring 2023 UndocuAlly Trainings**
March 24, 2023 | 10:30 a.m. to 12:30 p.m. | Virtual
Learn the history of our undocumented communities, past and present legislation, and the lived realities and barriers our undocumented communities are fighting through with strength and resilience. Registration required.

**College of Science Faculty Meeting**
March 24, 2023 | noon to 1 p.m. | Virtual
Agenda discussion items include faculty officer and committee member nominations; faculty fellow updates
from Dr. Phil Yang (Innovation and Industrialization) and Dr. Peter Plavchan (science story submission process); the Mason Science intranet, and faculty affairs updates including annual evaluation process.

**Dean's Student Excellence Awards applications**
Deadline March 27, 2023 | Noon
Recognize excellence by students in the College of Science for the 2022-2023 academic year. Nominations should be emailed by the department chair to [Dr. Cody Edwards](mailto:Dr.Cody.Edwards).  

**Unit Town Hall with President Washington**  
March 28, 2023 | 3 to 4:30 p.m. | HUB Ballroom  
All College of Science faculty and staff are encouraged to participate either in person or via Zoom.

**SAVE THE DATE: College of Science Strategic Planning Initiative Town**
April 6, 2023 | 1 to 2 p.m. | Exploratory Hall 3301  
Join us for a Strategic Planning Town Hall where 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. 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.
Subscribe to our email list.