Scientific research impact and engagement takes much effort by all. The department of Astronomy and Physics is fortunate to have a dynamic team of faculty, staff, and students who are dedicated to excellence in research and education. This newsletter is a testament to our commitment to sharing news about our faculty, staff, and students' accomplishments.

### In the News

#### School of Systems Biology

Professor Aarthi Narayanan from Mason's School of Systems Biology recently published a paper in the Journal of Microbiology & Biology Education. The study explores how and why the MMR Vaccine may aid in protecting the most vulnerable and active individuals against COVID-19.

#### Forensic Science

Associate Professor Kelly Knight, an expert in both forensic serology and forensic DNA analysis, is featured in the latest #FacultyFriday highlights. Her work has contributed to the forensic science community, and she has testified in several court cases.

### Mason Science Community

Register to join us and spread the word about ScienceConnect 2021! Join us Thursday, February 25 from 2 to 3 p.m. to connect with Mason Science faculty, staff, and students. Be sure to join us for Trivia from 2 to 3 p.m. February 25, 2021.

### Research & Discovery

The software development team is collaborating on developing Python tools that will allow scientists to easily view and explore heliophysics data in 3-D. By Elizabeth Grisham

### Happening at Mason

Join the Mason Science community to learn more about the town hall on the Anti-Racism Inclusive Excellence (ARIE) Task Force on Feb. 23 at 3:30 p.m.

### Events

- **February 19, 2021 | 3 to 4:30 p.m.** Colloquium on Computational Social Science/Computational Data Sciences
- **February 24 | 5 p.m.** Session proposal DEADLINE: Mason's 2021 Innovations in Teaching & Learning (ITL) Conference
- **February 25, 2021 | 2 to 3 p.m.** ScienceConnect 2021

#FernandoMiralles

By Fernando Miralles-Wilhelm

Scientists today have many responsibilities; as we develop our research ideas, test our various hypotheses, and collaborate with our colleagues, we must also consider the impact of our work on society. In this special issue, we highlight the importance of considering the social and ethical implications of our research.

In such a thriving scientific community, I can't help but be inspired to not slow down my pace of work. The steady stream of our published work by both faculty and students, the many global collaborations, and the progress and policy within our areas of expertise are all reasons to keep pushing forward.

As educators, we must also impart this sense of urgency to our students. We have a moral obligation to prepare them for a world that is rapidly changing and becoming more interconnected. In this issue, we feature the work of our students and faculty, who are making a difference in their respective fields.

The townhall provides an opportunity for the Mason community to learn more about the town hall on the Anti-Racism Inclusive Excellence (ARIE) Task Force on Feb. 23 at 3:30 p.m.

#ScienceConnect

Join us to hear Biology's Mason Science Series: Rising to the National and International COVID-19 Challenge paper:

Hear a discussion about Timothy R. Gulden, Gavin S. Hartnett, Raffaele Vardavas, and David Kravitz's recent publication: "Protecting the Most Vulnerable by Vaccinating the Most Active." The Journal of Microbiology & Biology Education

For the software development side of the project, the researchers will (1) create a set of Python functions that use existing SpacePy and HAPI libraries to read in measurements and simulation output and use the Python/ParaView API to render the data; (2) create a library of functions that produce 3-D renderings of data in a way that is useful for domain scientists; and (3) develop a set of functions that allow for common and basic 3-D data reduction and manipulation that can be used for exploring 3-D data renderings.