



May 2021

Dear Friends,

As we come to the end of the Spring 2021 semester, in what has been a uniquely challenging year, I want to thank all of you for being a part of the School of Earth and Space Exploration community.

Whether you participated in our virtual events, donated to our student emergency assistance fund and scholarships, persevered and excelled in your research and teaching efforts, or reached a milestone in your student or professional career, we are so glad you are a part of our school.

In celebration of the end of the semester, please enjoy <u>this video</u> <u>compilation</u> of our school's highlights from the 2020-21 Academic Year, and all that we have accomplished together.

I hope you will all take some time to relax and re-energize over the summer

months, and I will look forward to welcoming everyone back to campus in the fall!

Please enjoy this newsletter featuring our research news, announcements, upcoming events, and features.

Be well and keep safe,

MyNadhur

Meenakshi (Mini) Wadhwa

In the News

Deep under the ocean, microbes are active and poised to eat whatever comes their way

The subseafloor constitutes one of the largest and most understudied ecosystems on Earth. An interdisciplinary research team, led from ASU and the WHOI, sought to learn more about this ecosystem and the microbes that exist within it. The results of their findings were recently published in Science Advances, with geobiologist and Assistant Professor Elizabeth Trembath-Reichert as lead author. <u>Read more</u>





ASU student-built spacecraft to interact with the public

NASA has selected an ASU-designed spacecraft, called LightCube, to be deployed to low-Earth orbit through its CubeSat Launch Initiative. The spacecraft is about the size of a toaster and can be commanded by anyone with an amateur radio license and a ham radio to set off a xenon flash from the spacecraft that will be visible from the ground. LightCube will launch as an auxiliary payload aboard a rocket launching between 2022 and 2025. **Read more**

Deep water on Neptune and Uranus may be magnesium-rich

In a study recently published in Nature Astronomy with coauthor and SESE Professor Dan Shim, a team of scientists re-created the temperature and pressure of the interiors of Neptune and Uranus in the lab, and in so doing have gained a greater understanding of the chemistry of these planets' deep water layers. Their findings also provide clues to the composition of oceans on water-rich exoplanets outside our solar system. <u>Read more</u>



Announcements

Introduction to Space Weather

This fall 2021, ASU students will have the opportunity to learn how weather in space influences satellites, causes auroras, creates geomagnetic storms and influences ground-based systems on Earth, through a special topics course, SES 294: Introduction to Space Weather. The course will be taught by space physicist and Assistant Professor Katrina Bossert. <u>Read more</u>

ASU students boldly go with new 'Star Trek' space class

An avid fan of "Star Trek" since the 1970s, planetary geologist and Professor Dave Williams will be teaching a class this fall titled "Star Trek and Humanity's Future in Space." Williams will utilize ideas from the 'Star Trek' universe, in combination with peer-reviewed research materials, to explore problems related to humanity's future living and working in space. **Read more**





School of Earth and Space Exploration faculty promoted to Full Professor

Congratulations to Amanda Clarke, Chris Groppi, Dan Shim, and Patrick Young who have been promoted to Full Professor!

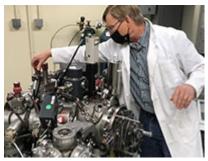


Lucy Soundscape

Are you a musician – composer, performer, music educator, or student – inspired by exploration and discovery? The NASA Lucy Mission is looking to create the "Lucy Soundscape," a public collection of original music inspired by the mission launching in October 2021! Learn how to participate in Lucy Soundscape

Lab of the Month

In the <u>Secondary Ion Mass Spectrometry (SIMS)</u> <u>Lab</u>, Professor Richard Hervig investigates the elemental and isotopic chemistry of Earth and extraterrestrial materials on a microscale with the goal of interpreting the origin and evolution of these materials. <u>Watch this lab tour video</u> and learn how samples from solar winds and meteorites to volcanic materials are processed and analyzed.





New space exhibition at the Arizona History Museum

"Ready to Launch: Arizona's Place in Space" is now open and on display at the Arizona History Museum in Tucson. This new exhibition investigates the impact that the people, landscape, and universities in Arizona have played in space exploration. "Ready to Launch: Arizona's Place in Space" will run through November 30, 2021. <u>Purchase tickets</u> and get more details

Events

Virtual Night Sky

Join the ASU Marston Exploration Theater presenters on **Wednesday June 2, 16 and 30, 2021 at 7 p.m.** for a live planetarium presentation. Learn about the planets and stars visible in the night sky from your own backyard and the latest events in space exploration! Register in advance for these FREE Zoom webinars <u>June 2</u>, <u>June 16</u> and <u>June</u> <u>30</u>.



Alumni Announcements

Alumni: Keep it current!

Join us on <u>LinkedIn</u> and <u>update your contact info</u> so you can receive the latest School and university news, exclusive career and professional development opportunities, unique ASU experiences, invitations to special events and much more!

