

September 2022

Dear Friends,

Earlier this month, <u>Camp SESE</u> returned to Tonto Creek Camp near Payson, Arizona to welcome our first-year students and introduce them to the ASU and School of Earth and Space Exploration family. The 3-day event was a huge success with faculty, staff, and undergraduate mentors guiding 52 first year and transfer students through science and teambuilding activities. Enjoy this <u>compilation highlighting students and faculty</u> from the weekend.

We are excited to announce a full season of inperson events at the School of Earth and Space Exploration! First, in collaboration with the Fountain Hills Dark Sky Association and the International Dark Sky Discovery Center, join us and 40 other countries on this one evening for International Observe the Moon Night. The return of our New Discoveries Lecture Series in October will feature ASU professor Evan Scannapieco and alumnus Ed Buie II, Assistant Professor of Astronomy at Vassar College.



Also in October, the **Earth and Space Exploration Day** is filled with science related activities and exhibits for science enthusiasts of all ages. And we are pleased to continue hosting our **Virtual Night Sky** series with the Marston Exploration Theater presenters.

I hope you enjoy this newsletter featuring our research news, announcements, and events. For more information, we have included links to social media at the end of this newsletter.

Be well and keep safe,

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Meenakshi (Mini) Wadhwa

Director of the School of Earth and Space Exploration

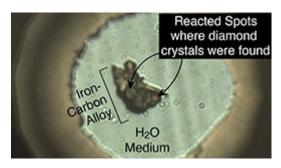
In the News

Carbon dioxide observed in exoplanet atmosphere by James Webb Space Telescope



A team of planetary scientists, including ASU Associate Professor Michael Line, has detected carbon dioxide in the atmosphere of a gas giant exoplanet with the

James Webb Space Telescope. It opens the door to learning about the composition of smaller rocky planets. **Read more**



Diamonds and rust at the Earth's core-mantle boundary

Collaborators have been conducting experiments where they compressed

iron-carbon alloy and water together to the pressure and temperature expected for Earth's core-mantle boundary, melting the iron-carbon alloy. The team including Byeongkwan Ko, a recent ASU PhD graduate and Professor Dan Shim found that water and metal react and make iron oxides and iron hydroxides, just like rusting at Earth's surface. However, they found that for the conditions of the core-mantle boundary, unlike rusting at Earth's surface, carbon comes out of the liquid iron metal alloy and forms diamond. Read more

Anouncements

2022 AGU Biogeosciences Section Carl Sagan Lecture Recipient



Professor Ariel Anbar was announced as AGU's 2022 Biogeosciences Section and Carl Sagan Lecture recipient, bestowed upon individuals for meritorious work or service toward the advancement and promotion of discovery and solution science. The Carl Sagan Lecture is presented annually and recognizes a scientist who embodies Carl Sagan's interest in astrobiology, as well as his effective science communication skills. This lecture honors the life of Carl Sagan, an astronomer and astrophysicist who was a leader in establishing the field of astrobiology. Read more



Earth Scientist wins \$2.5 million grant to advance geochronology

A team of scientists, including coprincipal investigator and SESE

professor Ramon Arrowsmith, has won a \$2.5 million grant from the National Science Foundation to advance geochronology, the study of the age of Earth materials—a field that is key for understanding Earth processes and history. The Advancing Geochronology Science, Spaces, and Systems initiative will increase access to geochronology data and expertise, to support and grow the geochronology community through a micro-funding program for graduate student research, broadening diversity in geochronology, and support for training and community engagement. Read more

Events

International Observe the Moon Night

The School of Earth and Space Exploration will join the Fountain Hills Dark Sky Association and the International Dark Sky Discovery



Center in hosting a public "International Observe the Moon Night" on **Saturday**, **October 1** from **5:30 to 8:30 pm**, weather permitting. Learn more about this FREE event held in Fountain Hills, Arizona at <u>FHdarksky.com</u> or <u>stream live on YouTube</u>.



Virtual Night Sky

Join the ASU Marston Exploration Theater presenters on **Wednesday**, **October 5 and 19 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! Be sure to register in advance for <u>October 5</u> and <u>October 19</u>.

New Discoveries Lecture Series

Join us for the fall 2022 New
Discoveries Lecture Series, "The
Invisible Halo Around Galaxies" with
School of Earth and Space Exploration



Professor Evan Scannapieco and Edward Buie II, Assistant Professor of Astronomy at Vassar College. Register for this FREE lecture **Thursday**, **October 6, 7 p.m.** <u>in-person at the Marston Theater</u> or <u>join us virtually</u>.



Earth and Space Exploration Day

The 26th annual Earth and Space Exploration Day will be held **Saturday**, **October 15 from 10 a.m. to 2 p.m.** This FREE in-person event includes

science-related activities for students, families, educators, and anyone interested in Earth and space. Located on the ASU Tempe campus in multiple locations including Interdisciplinary Science and Technology Building 4 (ISTB4), Interdisciplinary Building A (INTDSA), and Bateman Physical Sciences Center F (PSF). View the interactive ASU Tempe Campus map for locations.

Alumni Announcements

Alumni: Keep it current!

Join us on <u>LinkedIn</u> and <u>update your contact information</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!







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