



November 2021

Dear Friends,

It is hard to believe the season of giving is upon us and soon we'll be celebrating our Fall 2021 graduates!

The global Giving Tuesday is November 30 and we hope you will join us in celebrating this day by supporting the [\*\*School of Earth and Space Exploration Gift account\*\*](#) or any number of [\*\*School funds and programs\*\*](#). Your generous donations help support our students and allow us to continue our academic and public programs.

On that note, I am delighted to announce that the ASU Center for Meteorite Studies has been named in honor of acclaimed researcher and Regents Professor, Peter Buseck. [\*\*The Buseck Center for Meteorite Studies\*\*](#) not only

honors Professor Buseck's significant contributions and legacy in cosmochemistry research, but will also raise the profile and impact of the Center and its research in the broader scientific community.

On the horizon, be sure to save the date for the [launch of the James Webb Space Telescope](#) scheduled for no earlier than December 22. This highly anticipated event will launch humankind's most powerful eye on the universe and will complement and extend the discoveries of the Hubble Space Telescope.

I hope you enjoy this newsletter featuring the latest school news, announcements and features. For more information on our research, events, students, faculty, and alumni, we have included links to social media at the end of this newsletter. Please follow us, share, and retweet.

Be well and keep safe,



Meenakshi (Mini) Wadhwa

## In the News

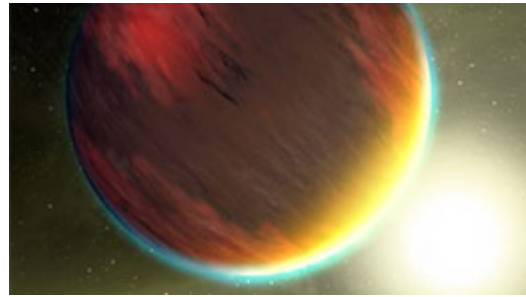


### **ASU Center for Meteorite Studies named in honor of acclaimed researcher Peter Buseck**

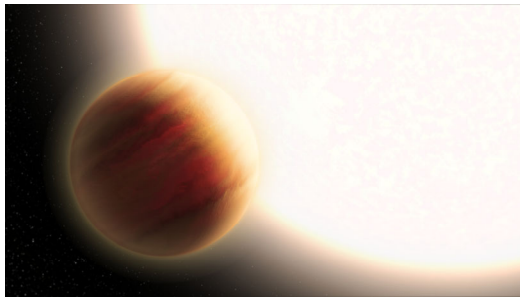
Founded in 1961, the center is one of ASU's first established research institutes and houses one of the world's largest university-based

meteorite collections. Over the past 60 years, meteorites from the collection have been used in scientifically important research, from probing the history of the solar system and its evolution, to the existence of extraterrestrial organic compounds and water, to the origins of life. Recently, the Center for Meteorite Studies was named in Buseck's honor, now known as the Buseck Center for Meteorite Studies. [Read more](#)

## NASA's Astronomers provide 'field guide' to exoplanets known as hot Jupiters



By combining Hubble Space Telescope observations with theoretical models, a team of astronomers has gained insights into the chemical and physical makeup of a variety of exoplanets known as hot Jupiters. The findings, published in *Nature Astronomy* with ASU co-authors Mike Line, Lindsey Wisser, and Ehsan Gharib-Nezhad, provide a new "field guide" for this group of planets and inform ideas about planet formation in general. [Read more](#)



## Scientists measure the atmosphere of a planet 340 light-years away

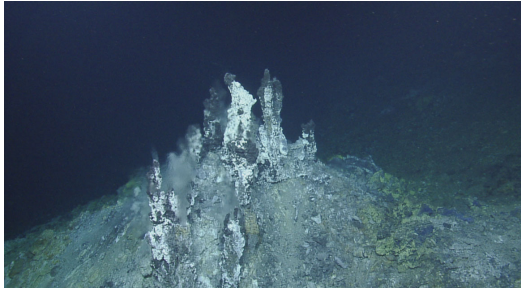
An international team of scientists, using the ground-based Gemini Observatory telescope in Chile, is the first to directly measure the amount of both water and carbon monoxide in the atmosphere of a planet in another solar system roughly 340 light-years away. The results have been published in the journal *Nature*. The team is led by SESE's Michael Line and includes SESE co-authors Joseph Zalesky, Evgenya Shkolnik, Jennifer Patience and Peter Smith. [Read more](#)

## ASU team celebrates 20th anniversary of NASA's Mars Odyssey Orbiter arrival at the Red Planet

Twenty years ago this October, SESE's Phil Christensen and his team acquired the first thermal infrared image of Mars



from the THEMIS instrument on the Mars Odyssey orbiter and have continued to post an “Image of the Day” ever since. In that time, they have collected more than a million images of Mars and provided unique views of Mars’ moons, Phobos and Deimos. To commemorate this historic 20th anniversary, the ASU THEMIS team, including mission planners Jonathon Hill and Kelly Bender, has compiled commemorative images from the instrument taken 20 years after the arrival of the spacecraft at Mars. [See images and read more](#)



## **New possibilities for life at the bottom of Earth's ocean, and perhaps in oceans on other planets**

In the strange, dark world of the ocean floor, underwater fissures, called hydrothermal vents, host complex communities of life. These vents belch scorching hot fluids into extremely cold seawater, creating the chemical forces necessary for the small organisms that inhabit this extreme environment to live. In a newly published study, biogeoscientists Jeffrey Dick (former SESE post-doc) and SESE’s Everett Shock have determined that specific hydrothermal seafloor environments provide a unique habitat where certain organisms can thrive. In so doing, they have opened up new possibilities for life in the dark at the bottom of oceans on Earth, as well as throughout the solar system. [Read more](#)

## **Announcements**



## **ASU astrobiologist and physicist receives early career award from the International Society of the Study of the Origin of Life**

ASU astrobiologist, theoretical physicist and associate professor Sara Walker has been selected to receive the Stanley L. Miller Early Career Award from the International Society of the Study of the Origin of Life. The award is provided in



recognition to Walker for her outstanding contributions to origins of life research early in her career. [Read more](#)

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## Lab of the month

In the Low-frequency Cosmology (LoCo) Lab, research students and faculty collaborate to develop radio instrumentation and conduct astronomical observations to study the evolution of the early Universe and the

first stars and galaxies. They apply their technical experience in large data analysis to study new approaches for helping improve science learning and public outreach. The LoCo Lab team is engaged in mentoring, teaching, and sharing their excitement for science and technology with the community. [Explore more and read about their projects.](#)

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## 'Tis the season

Just in time for graduation and holiday shopping, get your official school gear from our online gift store! We offer School of Earth and Space Exploration-branded shirts, polos, sweatshirts, hoodies, field shirts and baseball hats, onesies, bandanas, facemasks, water bottles and more! [Start shopping](#)

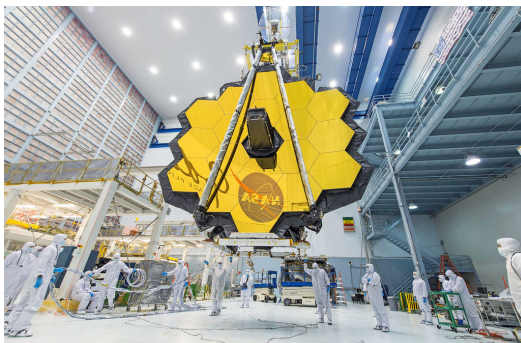
# GIVING TUESDAY

## Giving Tuesday is November 30

Your generosity allows us to support research discoveries, student success and make a difference for the School of Earth and Space Exploration community. Together we can make a difference. [Support the School's Gift Account.](#)

## Virtual Night Sky

Join the ASU Marston Exploration Theater presenters on **Wednesday, December 1 at 7 p.m.** for a live planetarium presentation. as we highlight our top 10 things to look forward to in 2022, from astronomical phenomena to upcoming NASA missions and the return of in-person events and activities this spring. [Register in advance for this free Zoom webinar.](#)



## James Webb Space Telescope

Launching from French Guiana no earlier than December 22, 2021, the James Webb Space Telescope (Webb) will be the largest, most powerful and complex space telescope ever built and launched into space. Save the date for this live streaming event, discover more at [NASA Webb](#), and check out the Arizona "Passport to the Stars" on the [Webb community events](#) page.

# Alumni Announcements

## Alumni: Keep it current!

Join us on [LinkedIn](#) and [update your contact information](#) 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!

**ASU** School of Earth and  
Space Exploration  
Arizona State University



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ASU ahead of MIT and Stanford  
— U.S. News & World Report, 5 years, 2016–2021

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