



Nebraska Physics & Astronomy Fall Summit

Matt Vonk, U. of Wisconsin–River Falls and Pivot Interactives

Harnessing the Power of the Cloud to Make Teaching Better and More Efficient



Featuring keynotes from Pivot Interactives and NASA's James Webb Space Telescope team!

**Saturday,
October 16, 2021
8:30 a.m.-4:30 p.m.**

Jorgensen Hall, UNL
City Campus

Keynotes will be
available on Zoom

**More than 15 sessions
throughout the day!**

astro.unl.edu

RSVP: <https://forms.gle/YuyXEgRzQTmYn2fN6>

The power and ease of cloud computing is changing how scientists do science. It should also be changing the way students learn science. Whether it's the logistics of assigning tasks for students and providing feedback, the way that students collaborate synchronously and asynchronously, the location where data from experiments is stored, how students access simulations, or how work can be individualized for different students, nearly every step in the learning process can benefit from the affordances of the cloud. This talk will highlight how the confluence of new technologies, including Bluetooth sensors, customizable simulations from PhET, and the Pivot Interactives science platform integrate with the cloud to produce something new and special.

Yoni Brande, University of Kansas

Exoplanet Science with the James Webb Space Telescope



Exoplanet science is one of the most exciting applications of the James Webb Space Telescope's unique abilities. Nearly a quarter of all the time spent in JWST's first year of operation will be used to study planets around other stars, discovering new exoplanets, searching for their atmospheres, mapping their surfaces, and imaging them directly. Many of these programs will be conducting observations never made before, and these will form the basis for future work with the observatory as well. JWST will give us our best chance yet at finding traces of life on planets around other stars, and the basic science needed to do these investigations is accessible to everyone. I will give a quick overview of JWST, exoplanets, the techniques we use to study them, and what we hope to learn in the first year of JWST operations.



PHYSICS AND ASTRONOMY



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