

ASU® Beus Center for
Cosmic Foundations

Arizona State University

in the School of Earth and Space Exploration

October 6, 2021

ASU selected to host NASA events for James Webb Space Telescope launch

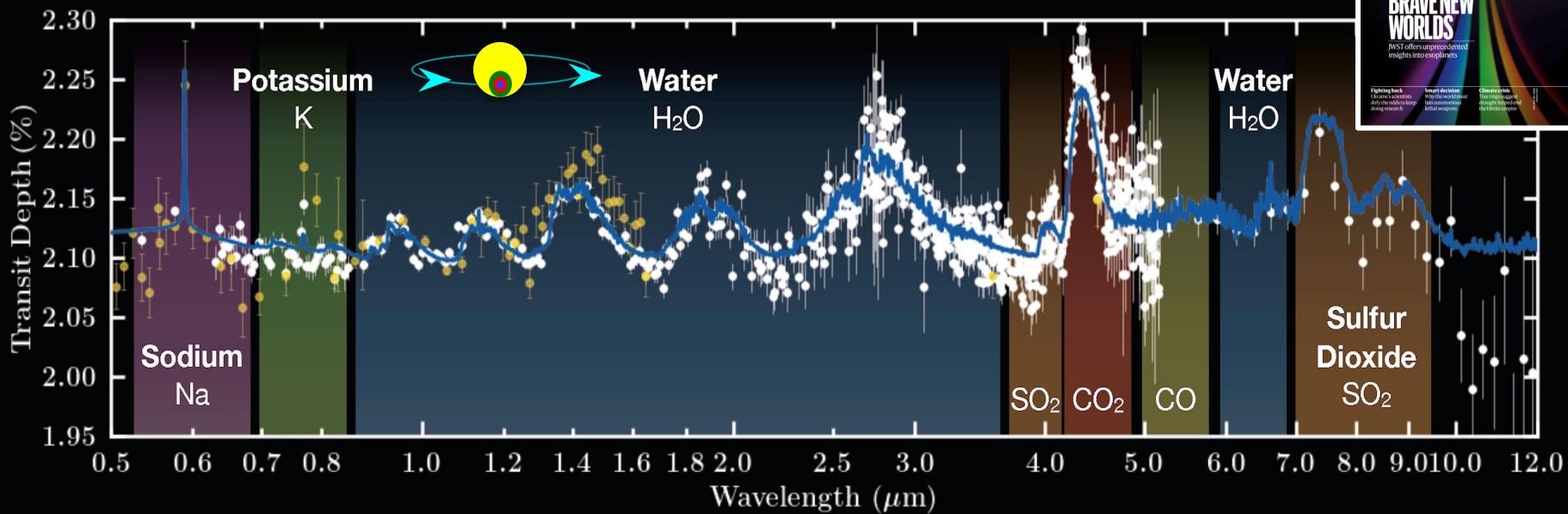
Prof. Rogier Windhorst





Carbon dioxide observed in exoplanet atmosphere

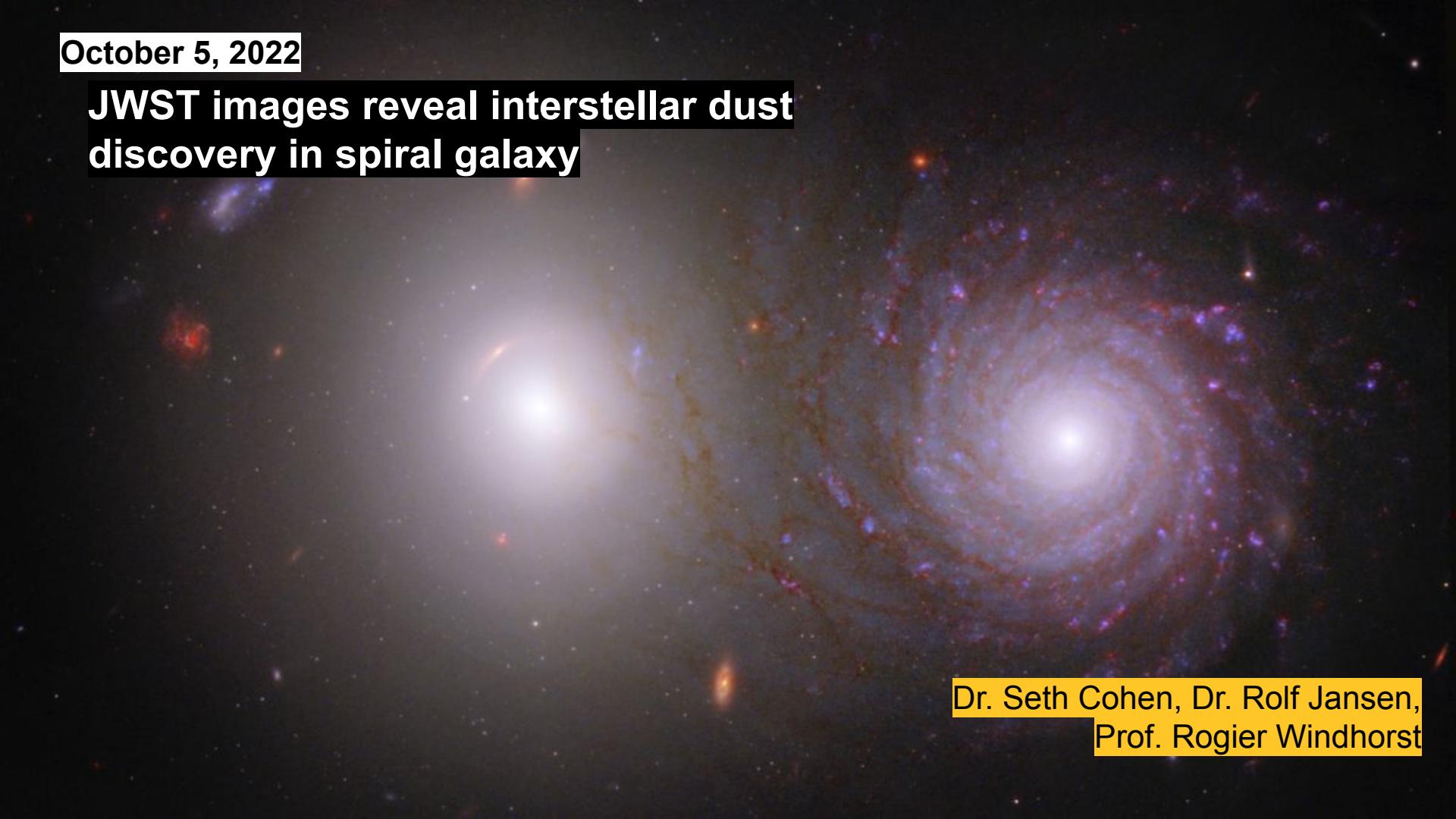
August 25, 2022



Weiner Mansfield,
Dr. Luis Welbanks, Prof. Michael Line

October 5, 2022

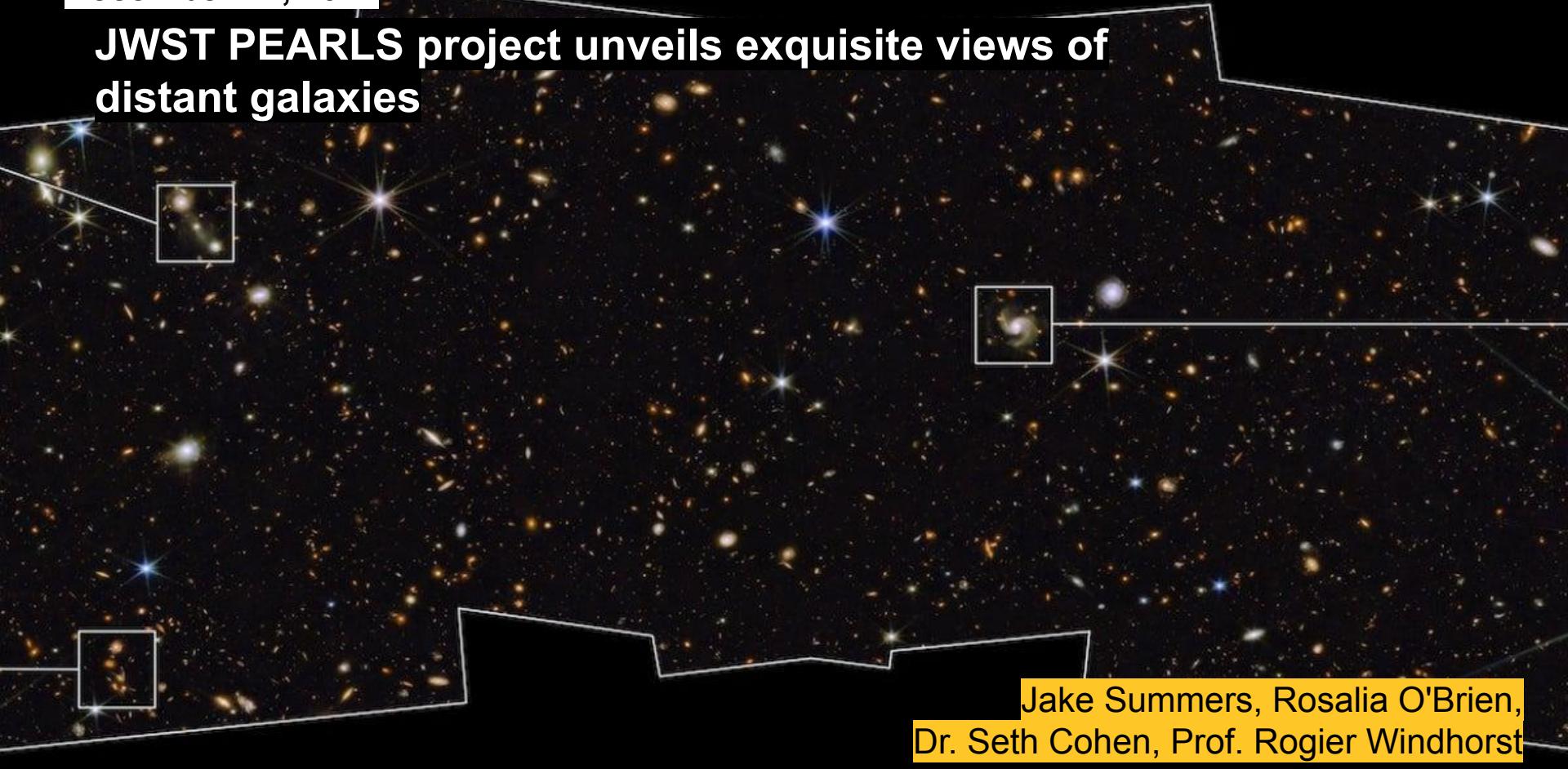
JWST images reveal interstellar dust discovery in spiral galaxy



Dr. Seth Cohen, Dr. Rolf Jansen,
Prof. Rogier Windhorst

December 14, 2022

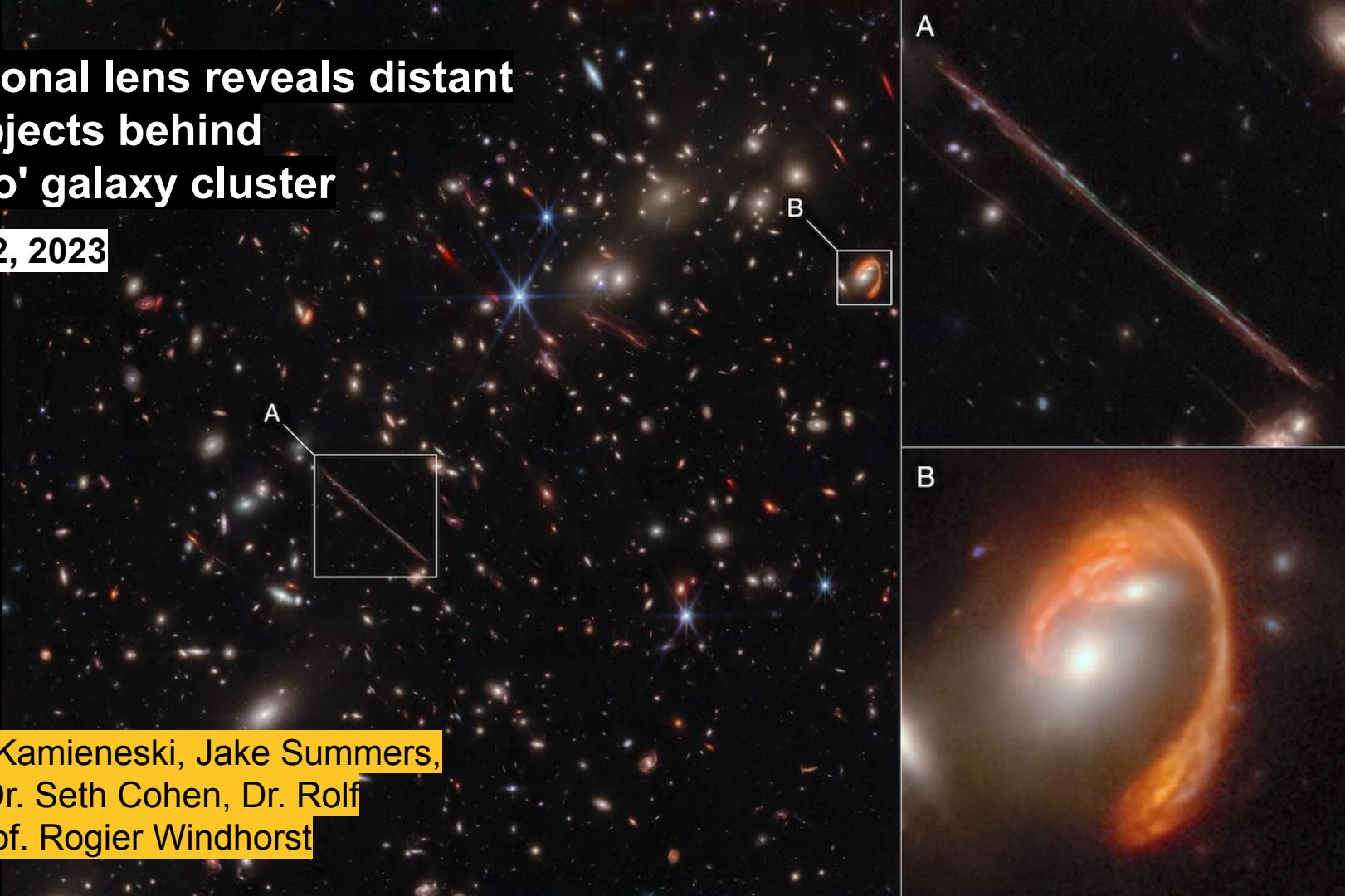
JWST PEARLS project unveils exquisite views of distant galaxies



Jake Summers, Rosalia O'Brien,
Dr. Seth Cohen, Prof. Rogier Windhorst

Gravitational lens reveals distant dusty objects behind 'El Gordo' galaxy cluster

August 2, 2023



Dr. Patrick Kamieneski, Jake Summers,
Nick Foo, Dr. Seth Cohen, Dr. Rolf
Jansen, Prof. Rogier Windhorst

Gravitational lens reveals distant dusty objects behind 'El Gordo' galaxy cluster

August 2, 2023

A lensed view of the El Anzuelo galaxy becomes
undistorted through computer modeling →



Dr. Patrick Kamieneski, Jake Summers,
Nick Foo, Dr. Seth Cohen, Dr. Rolf
Jansen, Prof. Rogier Windhorst

November 09, 2023

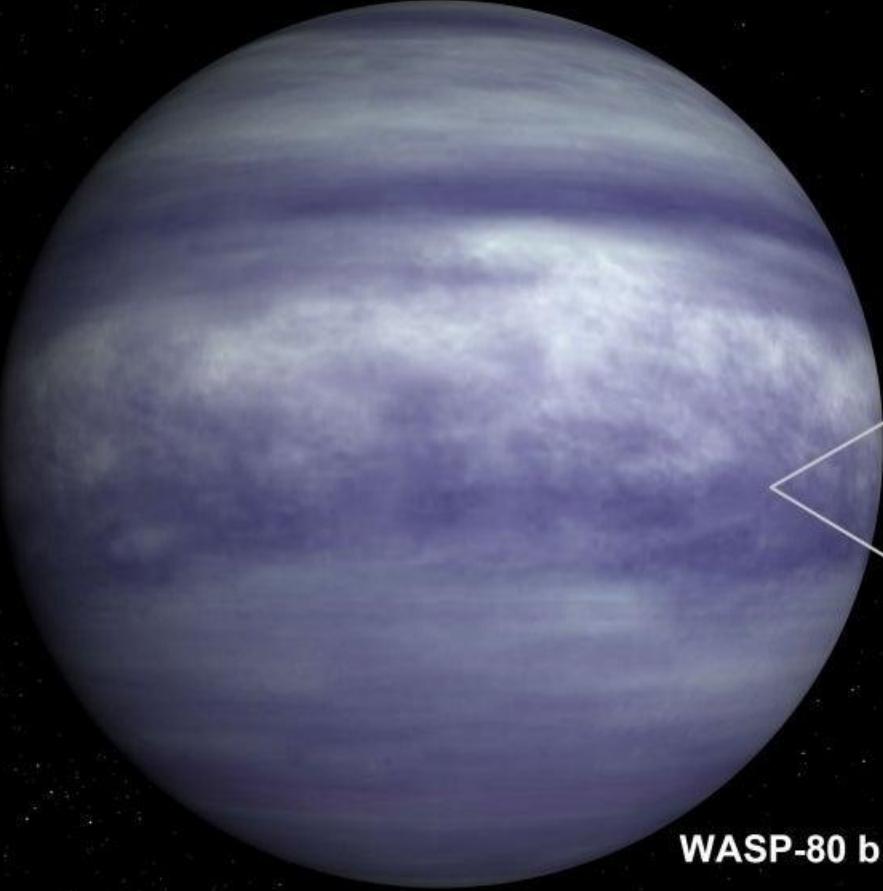
Hubble, JWST together reveal vivid landscape of galaxies



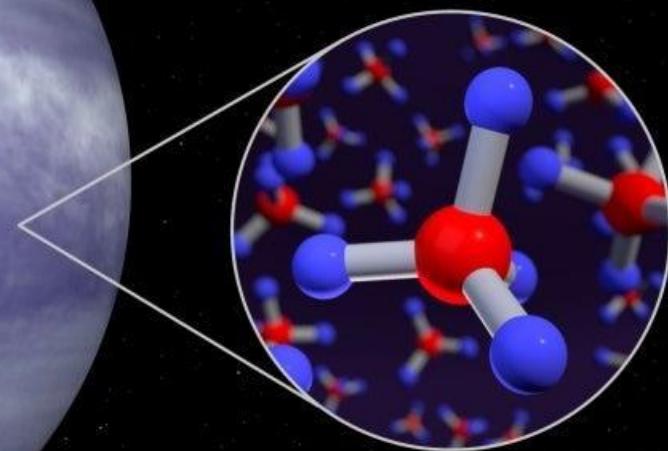
Jake Summers, Dr. Seth Cohen,
Dr. Rolf Jansen, Prof. Rogier Windhorst

JWST observes methane in
exoplanet's atmosphere

November 22, 2023



WASP-80 b
Artist's concept



Methane

Dr. Luis Welbanks
Prof. Michael Line

Unraveling the mysterious chemistry of common exoplanets—hydrogen, magma key to predicting limits on planetary growth

December 18, 2023

Dr. Taehyun Kim
Prof. Dan Shim
ASU Eyring Materials Center

Artist's concept



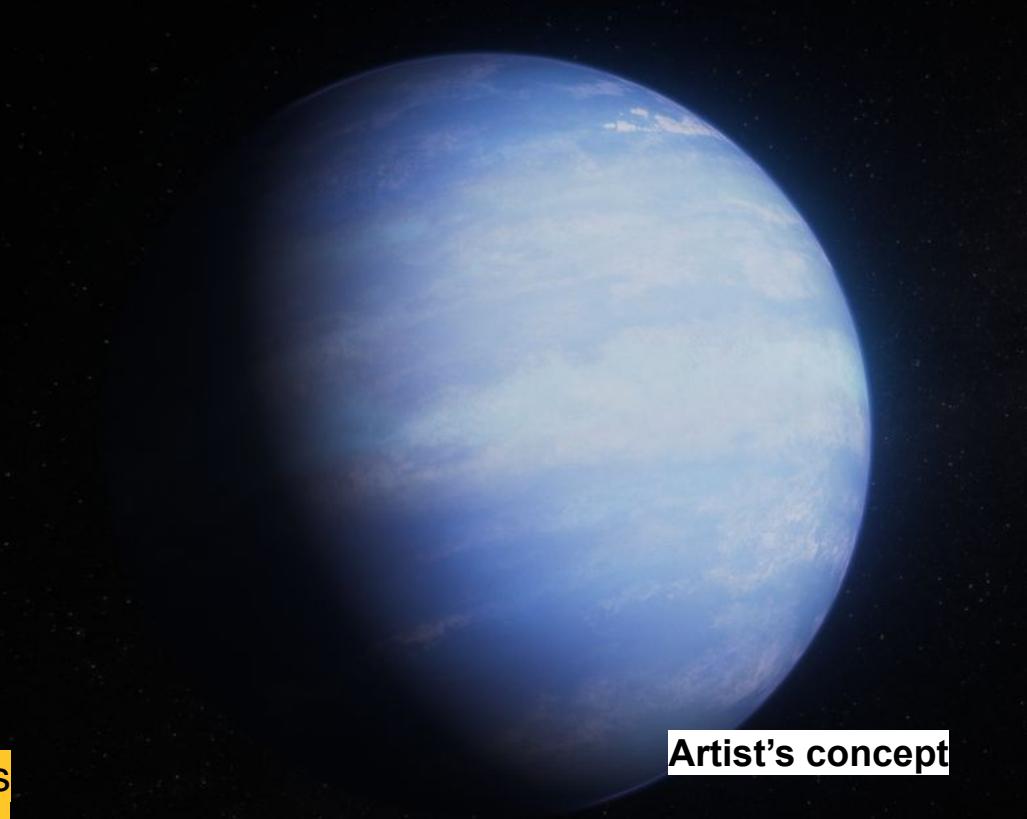
JWST identifies fossil star cluster in distant galaxy

April 3, 2024

Jessica Berkheimer
Jake Summers
Scott Tompkins
Dr. Brent Smith
Dr. Seth Cohen
Dr. Rolf Jansen
Prof. Rogier Windhorst

ASU scientists help resolve 'missing methane' problem of giant exoplanet WASP-107b

May 20, 2024



Artist's concept

Dr. Luis Welbanks
Prof. Michael Line



Groundbreaking discovery on
exoplanet formation—the presence
of sulfur dioxide

June 13, 2024

Dr. Luis Wellbanks
Prof. Michael Lines

Artist's concept



June 25, 2024

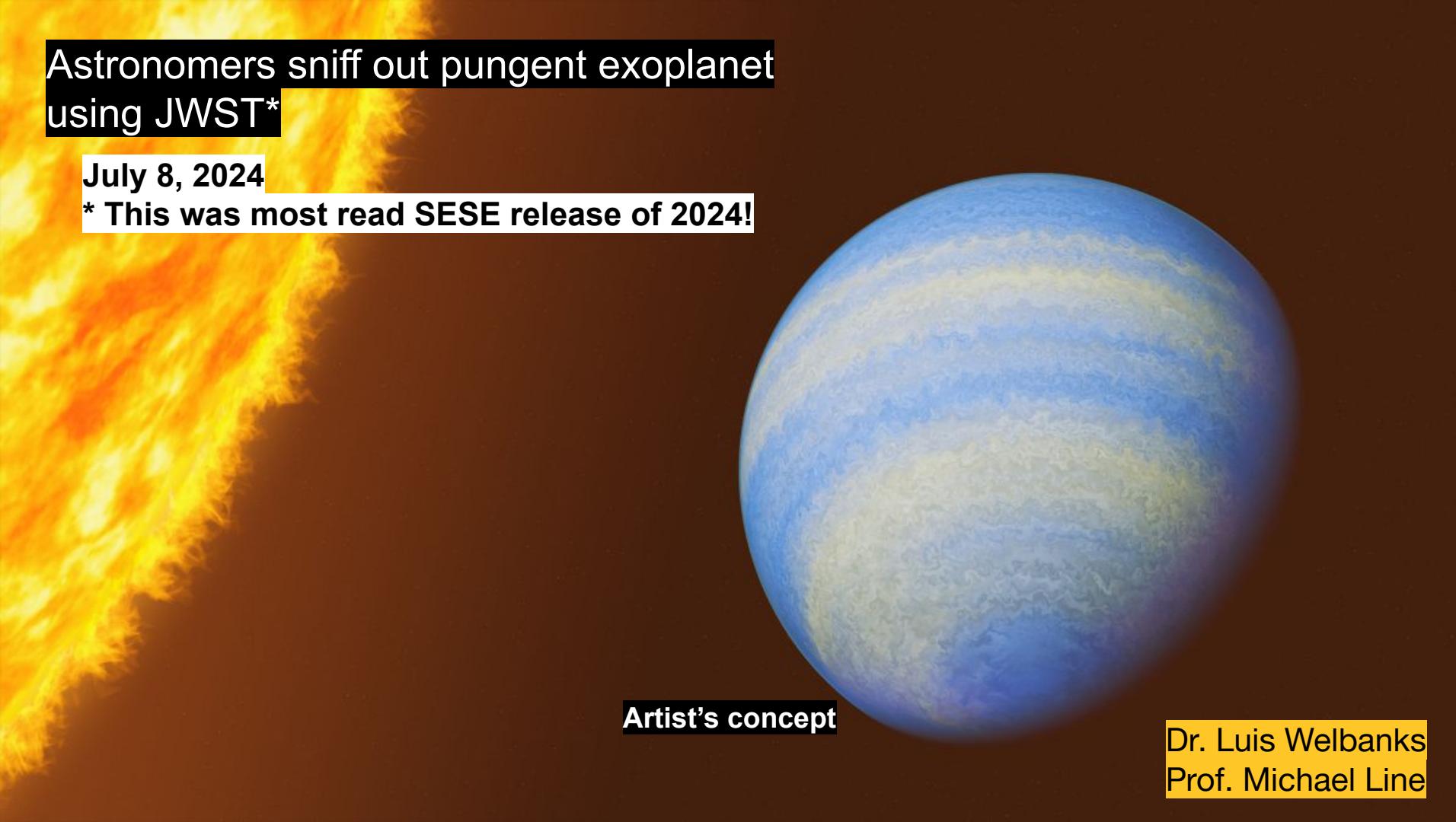
**JWST reveals star clusters in an infant
galaxy formed less than 500M years
after big bang**

Prof. Rogier Windhorst

Astronomers sniff out pungent exoplanet using JWST*

July 8, 2024

* This was most read SESE release of 2024!

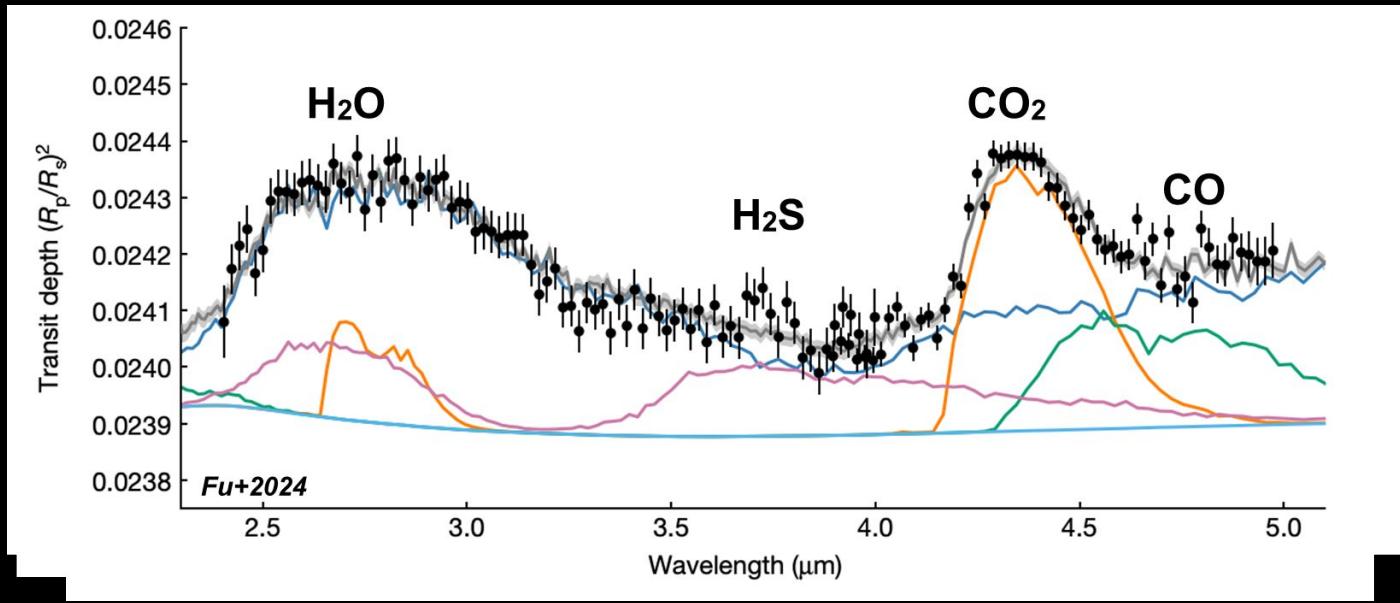


Artist's concept

Dr. Luis Welbanks
Prof. Michael Line

Astronomers sniff out pungent exoplanet using JWST

July 8, 2024



Dr. Luis Welbanks
Prof. Michael Line

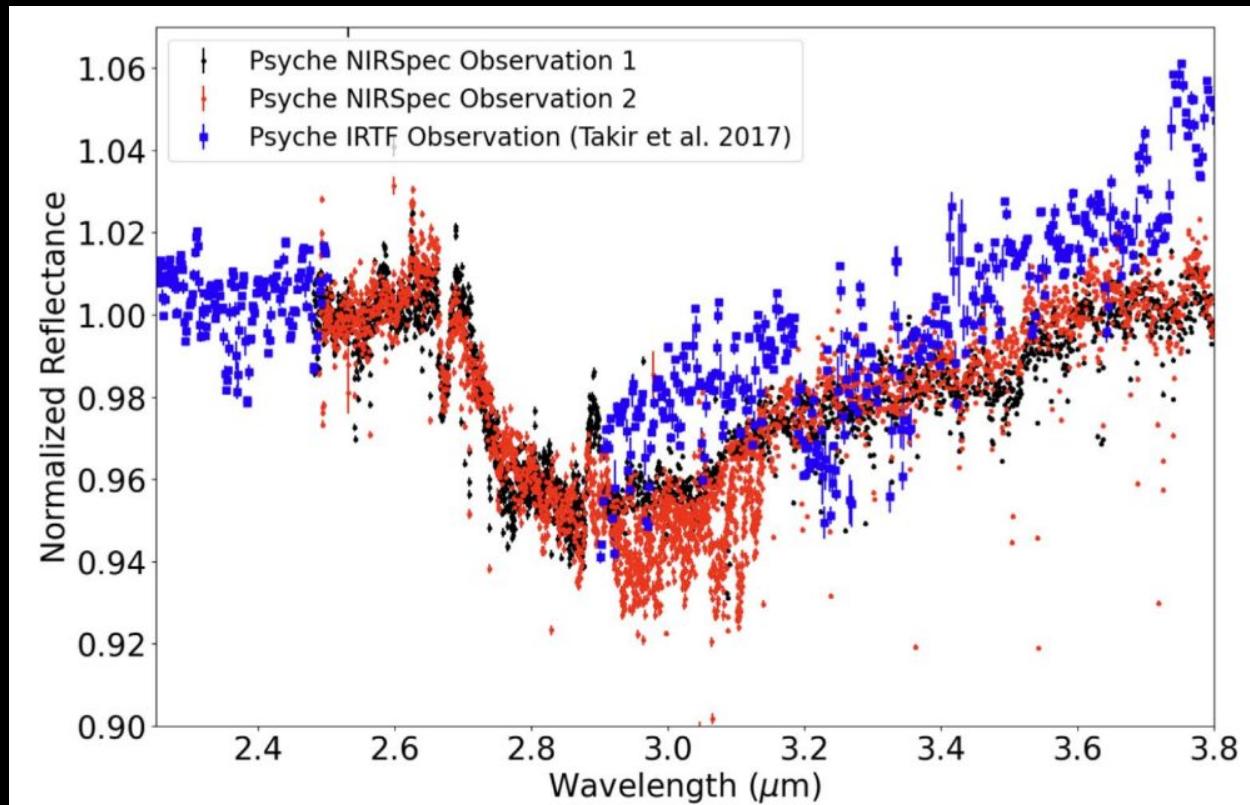
JWST Reveals Distorted Galaxy Forming Cosmic Question Mark

July 2024

Dr. Vicente Estrada-Carpenter

JWST Measures Water Abundance on Asteroid (16) Psyche

August 2024



Super-Earth exoplanets may sustain
volcanism, magnetic fields longer
than Earth

September 13, 2024

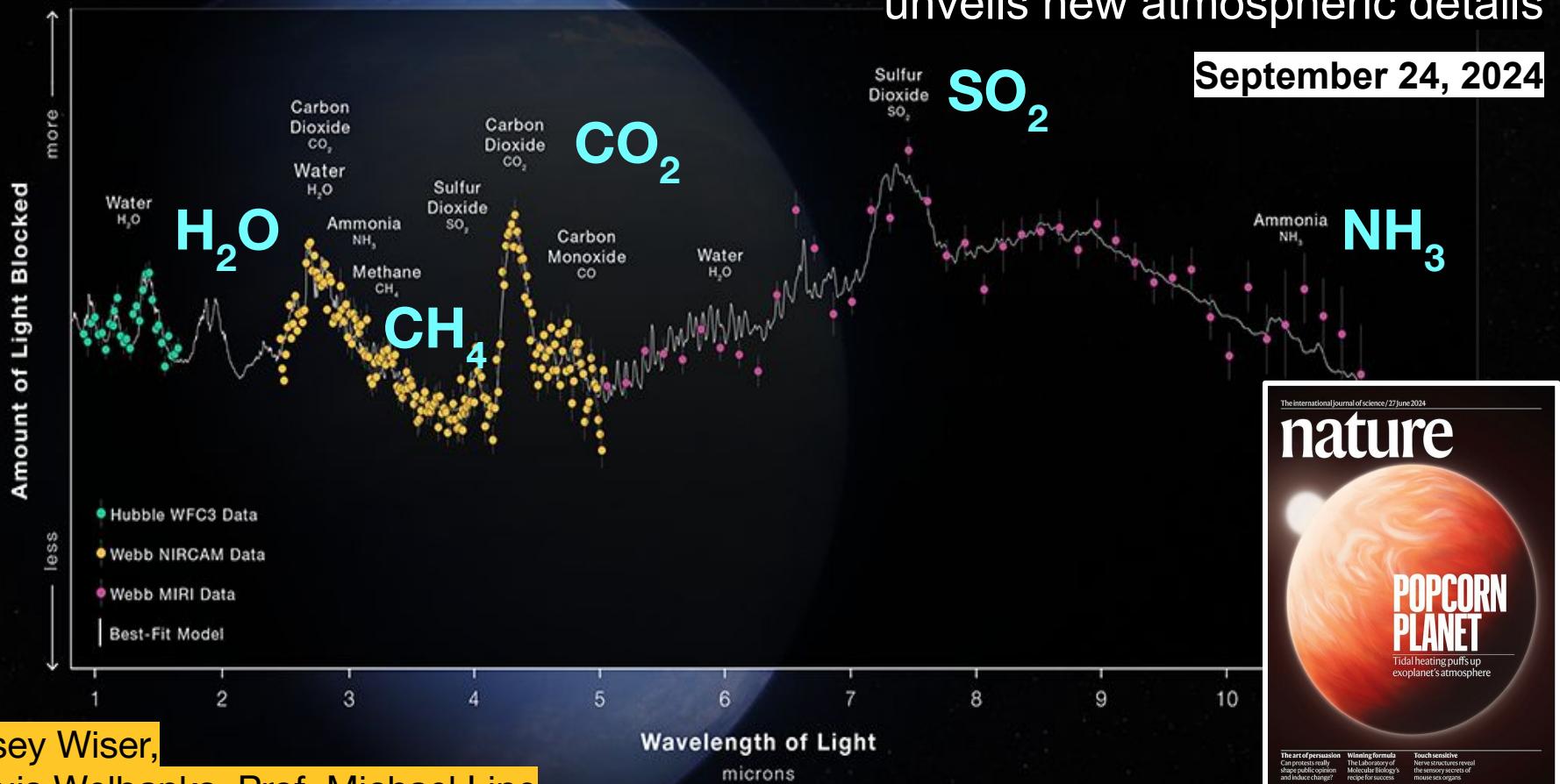


Artist's concept

Prof. Joseph O'Rourke

'More to munch on': The 'popcorn planet' unveils new atmospheric details

September 24, 2024



Discovery of Unique "Steam-World" Exoplanet GJ 9827 d

October 9, 2024

Artist's concept

Dr. Luis Welbanks



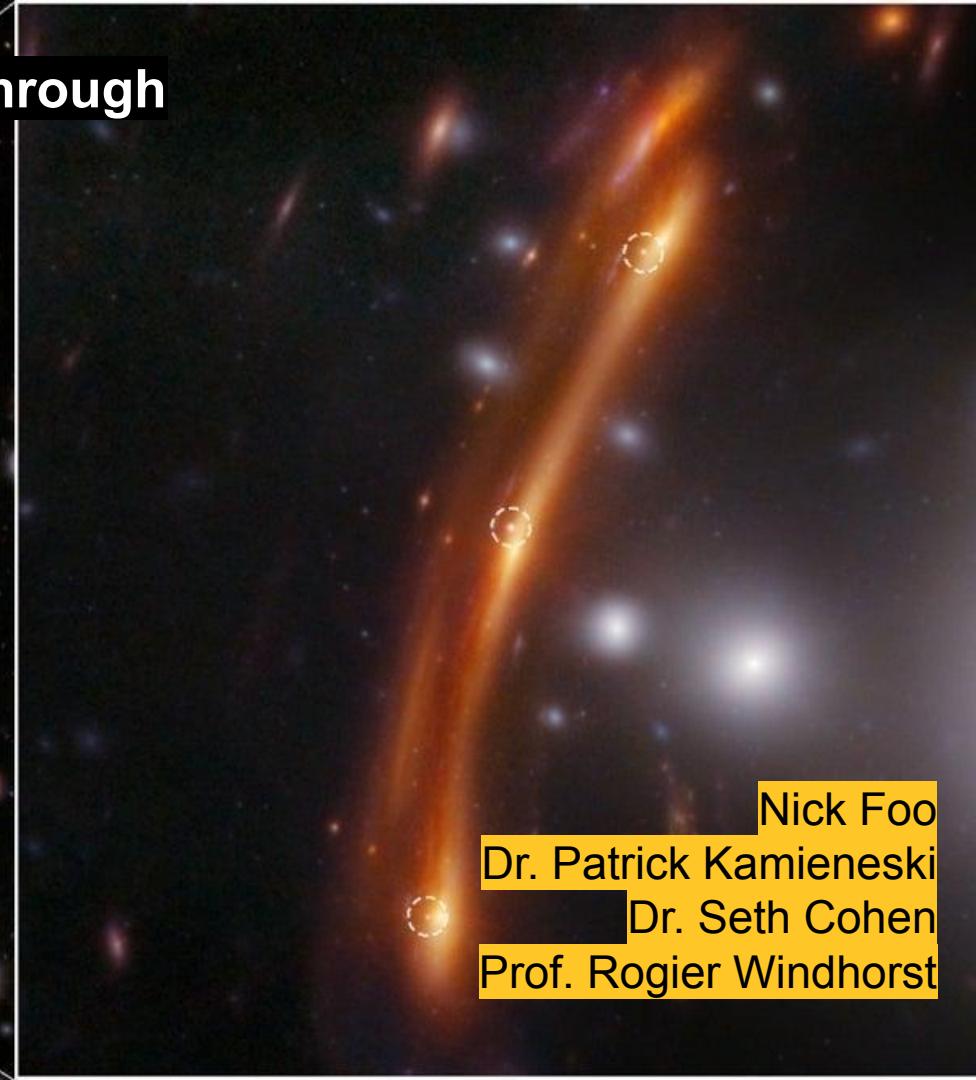
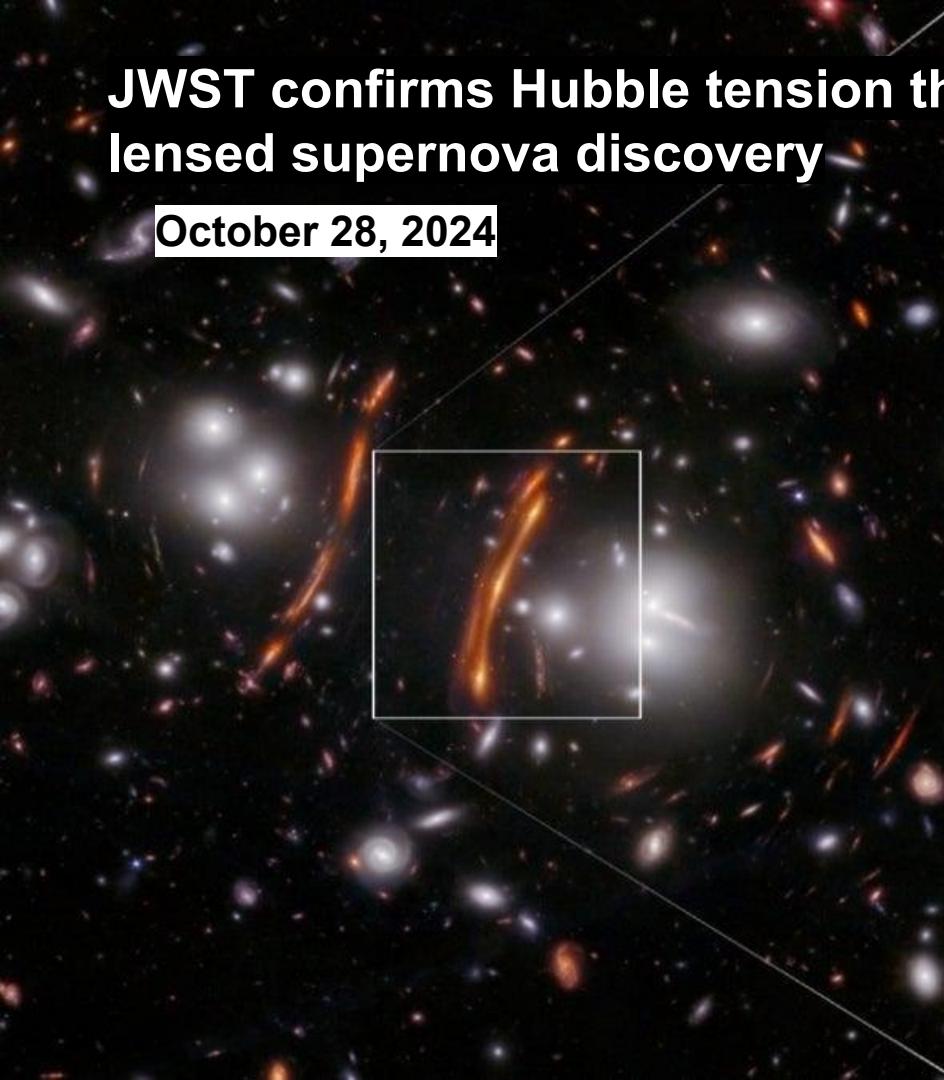
October 28, 2024

**JWST imaging of
star-forming protocluster
PHz G191.24+62.04 as it
looked 11 billion years ago**

Jake Summers
Prof. Rogier Windhorst

JWST confirms Hubble tension through lensed supernova discovery

October 28, 2024

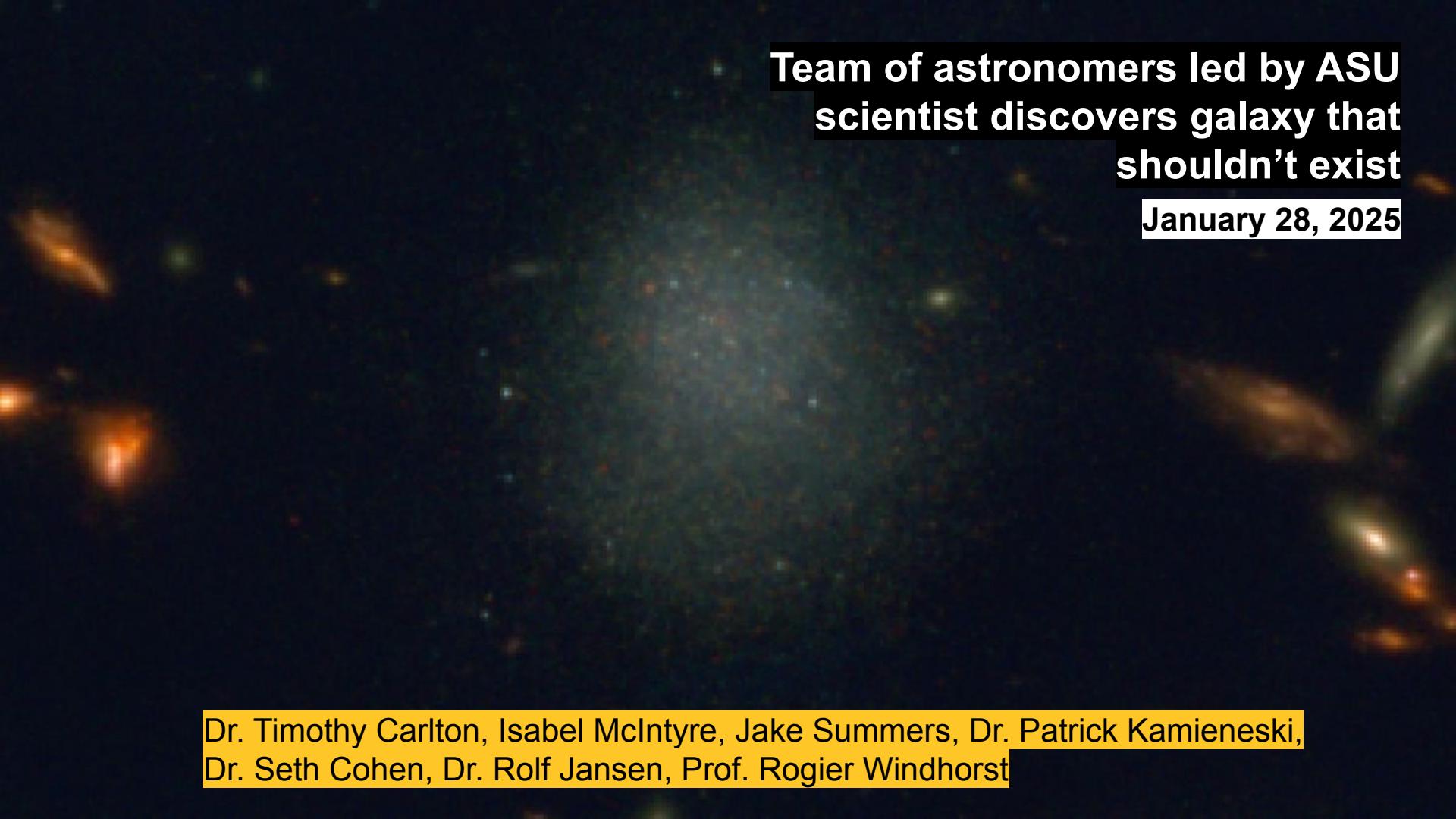


Nick Foo
Dr. Patrick Kamienieski
Dr. Seth Cohen
Prof. Rogier Windhorst

Beyond the 'Dragon Arc': JWST unveils a treasure trove of hidden stars

January 6, 2025

Nicholas Foo
Dr. Seth Cohen
Prof. Rogier Windhorst



Team of astronomers led by ASU scientist discovers galaxy that shouldn't exist

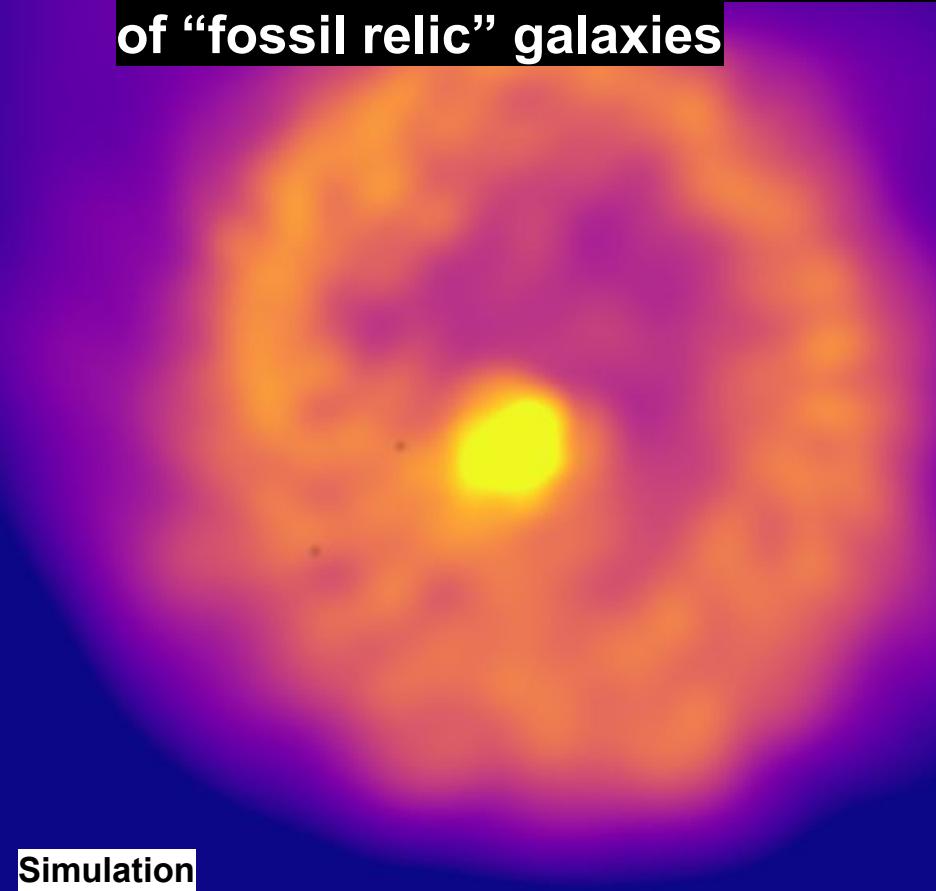
January 28, 2025

Dr. Timothy Carlton, Isabel McIntyre, Jake Summers, Dr. Patrick Kamieneski,
Dr. Seth Cohen, Dr. Rolf Jansen, Prof. Rogier Windhorst

2 kpc

February 26, 2025

JWST inspires scientists to reveal the secret lives of “fossil relic” galaxies



Dr. Jacqueline Monkiewicz
Dr. Timothy Carleton

ORIGINS

Artist's concept

New Studies Dismiss Signs of Life on Distant Planet

In April, astronomers said they had detected a possible signature of life on the exoplanet K2-18b. Now, three independent analyses discount the evidence.

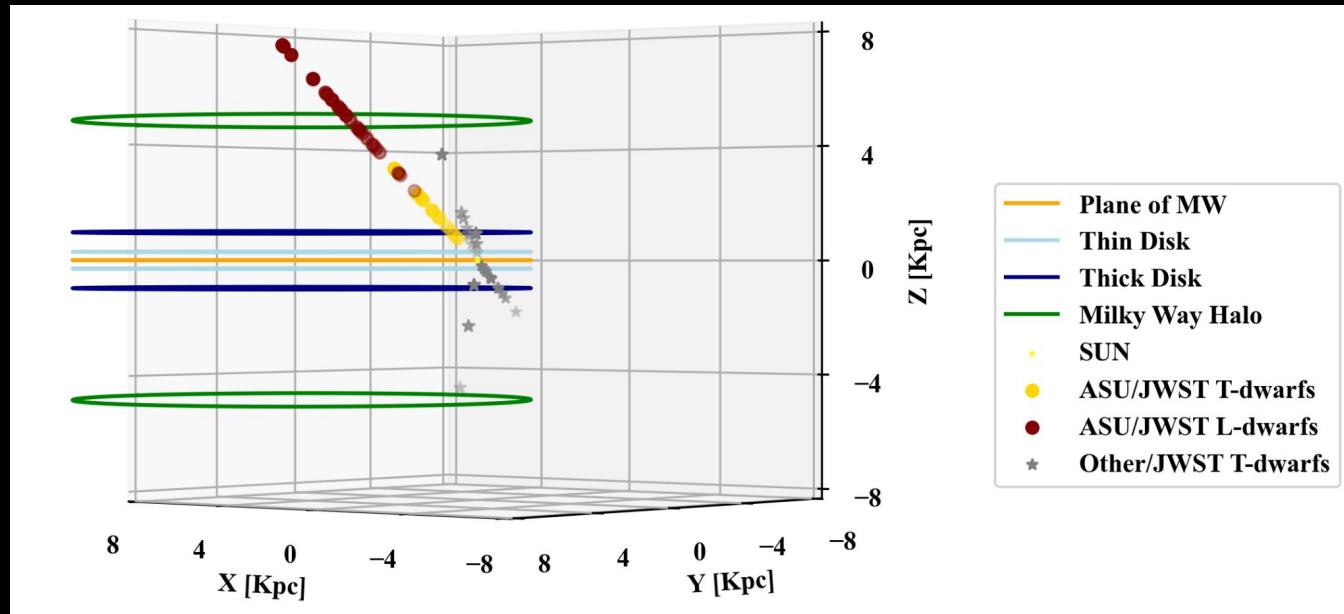
November 23, 2025



Dr. Luis Welbanks

ASU-led JWST observations extend known Brown Dwarfs to new reaches in the Milky Way

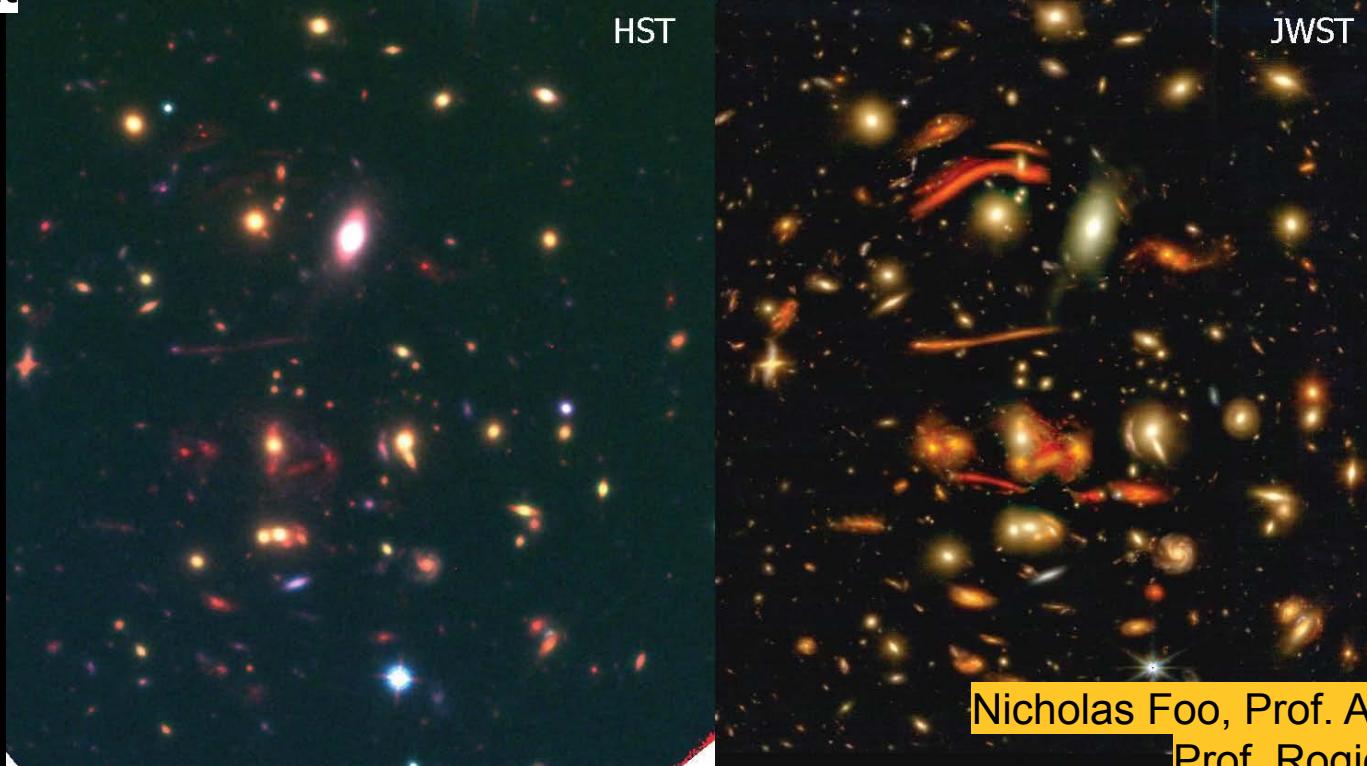
Current



Jorge Sanchez
Prof. Jenny Patience

JWST reveals red, dusty galaxies of lensed protocluster forming over 11 billion ago

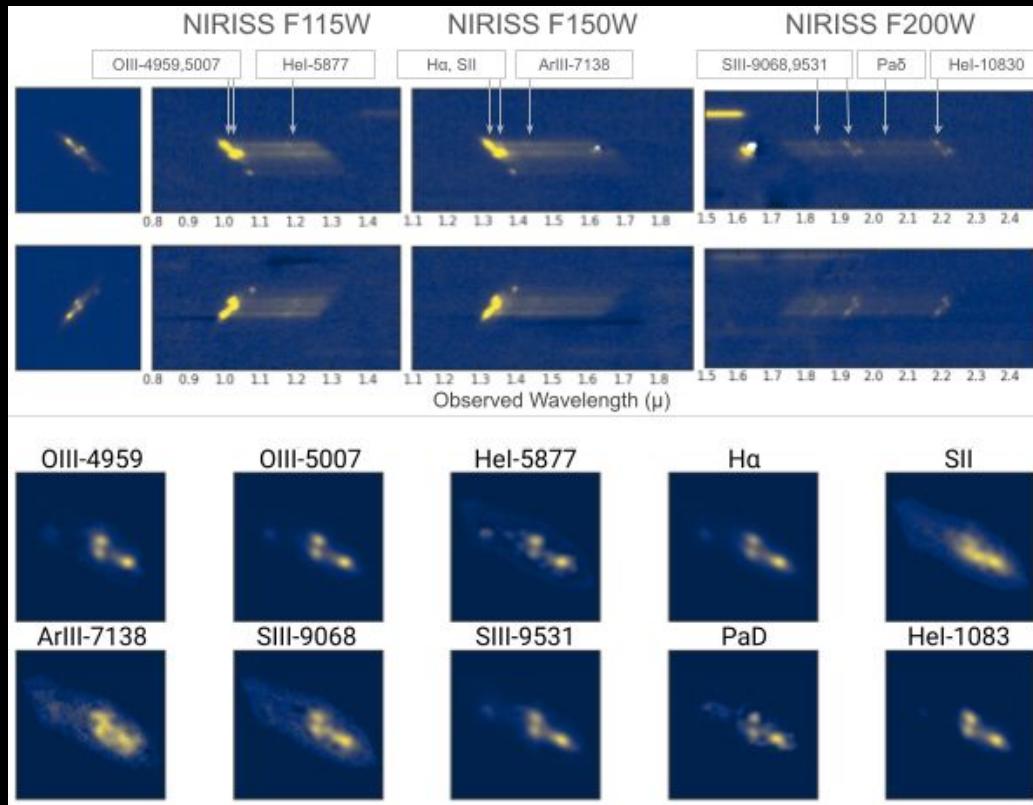
Current



JWST NIRISS Grism spatially resolved spectra used to extract emission line maps and chart location of elements within a galaxy

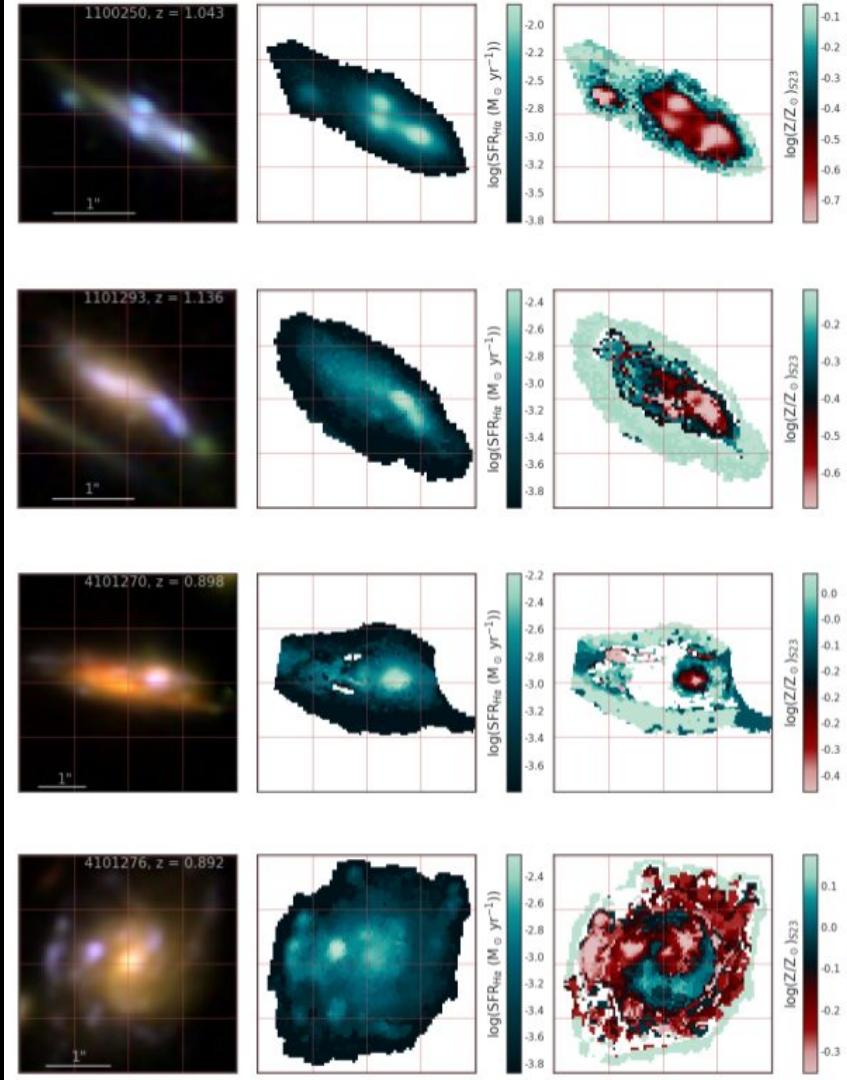
Current

Dr. Vicente Estrada-Carpenter



Bursty star forming regions in four galaxies—likely stemming from the inflow of pristine gas

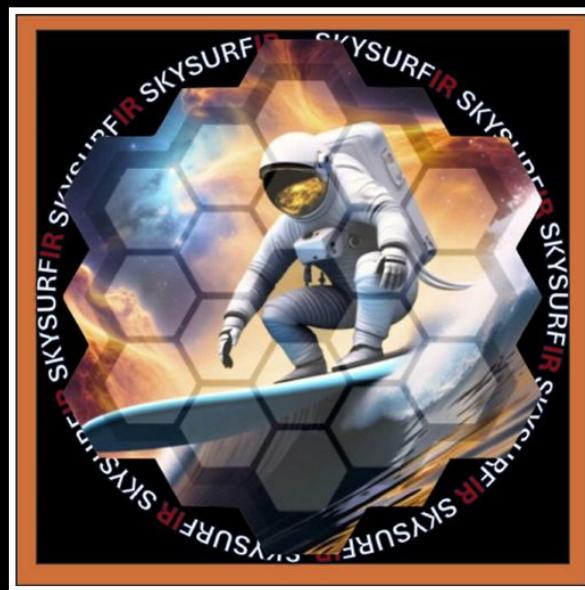
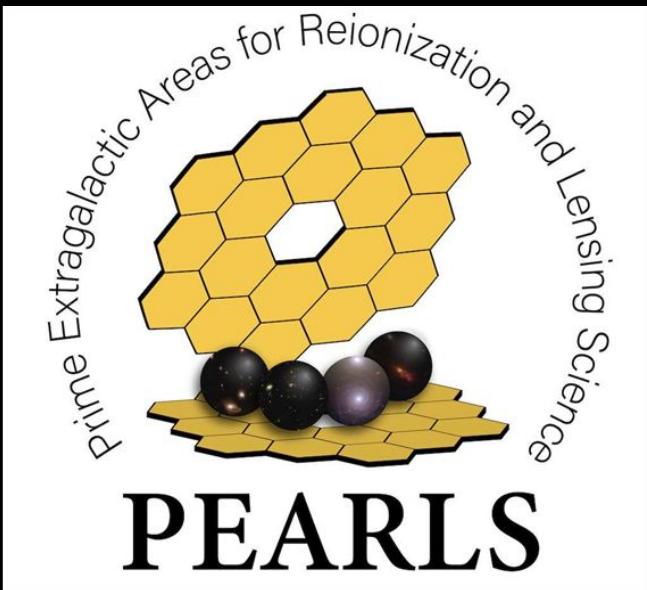
Current



Dr. Vicente Estrada-Carpenter

JWST project logos and patches

Prof. Rogier Windhorst's research group



Jake Summers, Dr. Seth Cohen, Prof. Rogier Windhorst



Members of Prof. Rogier Windhorst's JWST research team



Hangi Andras-Letanovszky



Haylee Archer



Jessica Berkheimer



Alex Blanche



Sarah Caddy



Timothy Carlton



Deiondrae Carter



Seth Cohen



Tzvetelina Dimitrova



Zachary Goisman



Daniel Henningsen



Megan Householder



Rolf Jansen



Darby Kramer



Liam Nolan



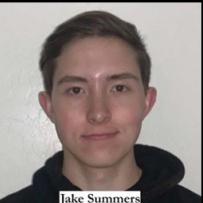
Rosalia O'Brien



Caleb Redshaw



Sydney Scheller



Jake Summers



Andi Swirbul

Students and staff in Prof. Rogier Windhorsrt's
research group work on JWST data

