

Space Shorts 24

Gillian Pickup 8/04/26



The Artemis II Mission

- As everyone already knows, this NASA Mission was launched on the 1st April
- This picture of the moon was taken from the Orion spacecraft on Day 4 of the journey
- The moon is oriented with its South Pole at the top
- The Orientale Basin is on the right



Artemis II mission main flight stages



1 Launch
Kennedy Space Center

2 Main engine cutoff, separation

3 Orion spacecraft separation from propulsion stage

4 High Earth orbit, systems check

5 Lunar flyby

6 Crew module separation

7 Earth atmosphere entry

8 Splashdown in Pacific Ocean

Source: NASA

AFP

The Artemis II Mission

- This image, taken 2 days ago, is now front-page news in a lot of papers
- It shows “Earthset” below the Lunar horizon



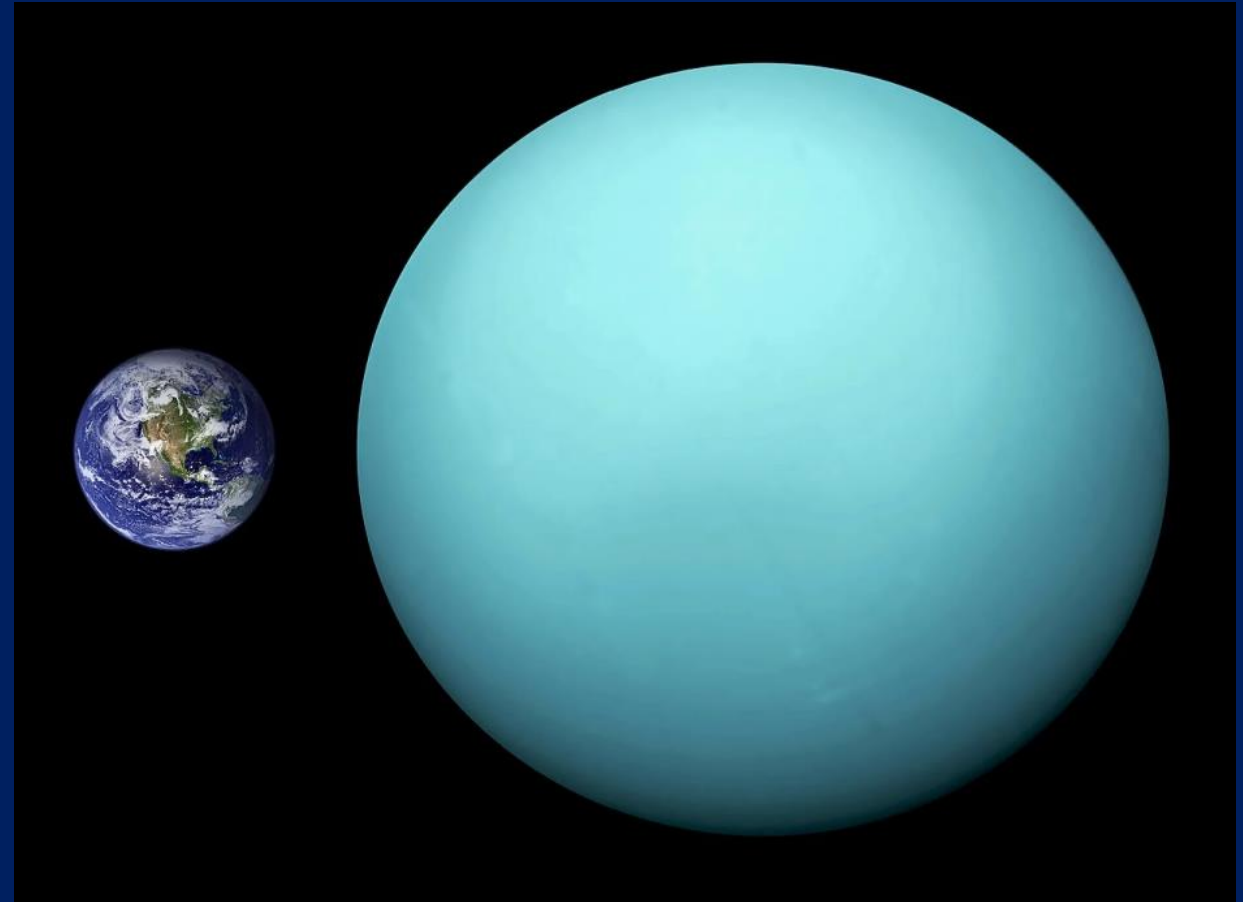
The Artemis II Mission

- Here is a photo of the eastern edge of the South Pole Aitken Basin
- You can see how rugged the terrain is. At 2,500km in diameter, this is the largest and oldest impact basin on the moon



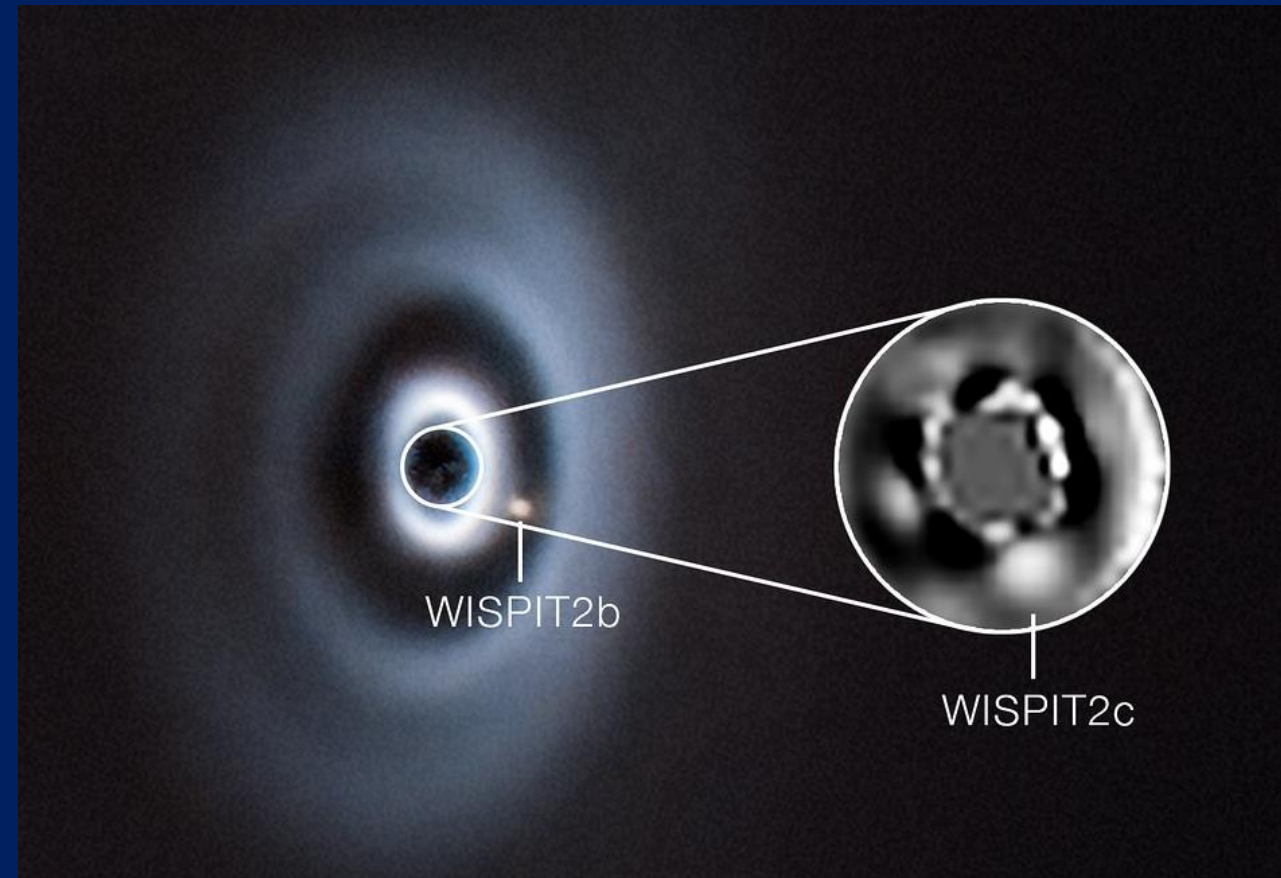
How Long is a Day on Uranus?

- The surface of Uranus is featureless
- Also, Uranus is tilted, so we're sometimes looking at the poles
- Recently scientists have examined images from the Hubble Space Telescope to study aurorae on Uranus
- The new calculation of a day is 17 hrs, 14 mins and 52 secs, and it is 28 secs longer than previously thought!



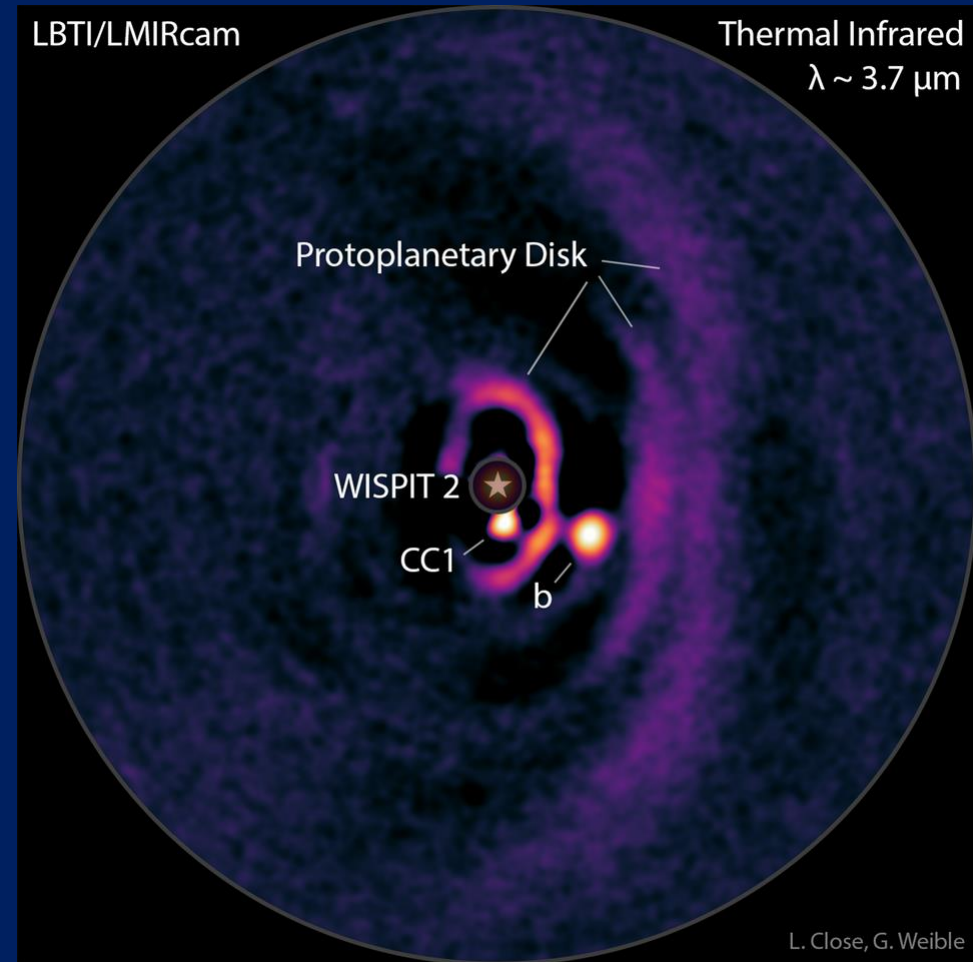
New Image of Stellar Planetary Formation

- This image shows 2 planets forming around a young star called WISPIT 2
 - WISPIT is “**W**ide **S**eparation **P**lanets **I**n **T**ime”
- It was taken at the European Southern Observatory (ESO)
- Note that the new planets have made gaps in the disk ring



New Image of Stellar Planetary Formation

- Here is an infrared image of the same system
- It was taken using the LBT – Large Binocular Telescope in Arizona
- “CC1” is actually WISPIT2c

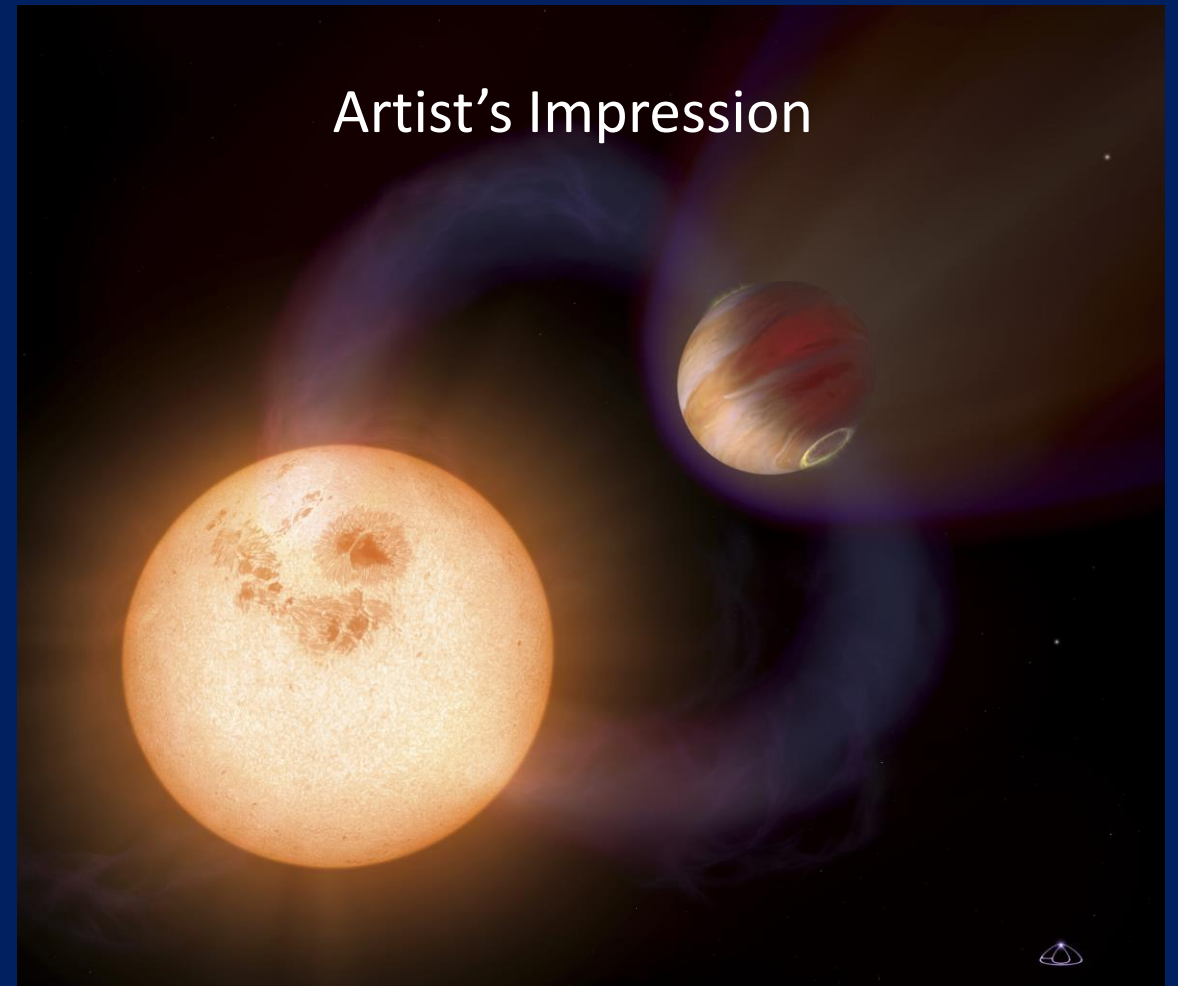


https://en.wikipedia.org/wiki/WISPIT_2#/media/File:WISPIT_2_Annotated_LBTI_Image.png

Image credit: *Laird Close & Gabriel Weible (University of Arizona)*

AI Identifies More Than 100 New Exoplanets

- Artificial Intelligence (AI) has been used to identify more exoplanets
- A team at the University of Warwick used data from the TESS mission (Transiting Exoplanet Survey Satellite)
- TESS searches for tiny dips in a star's brightness, which indicate that there is a planet passing in front of it



<https://astronomynow.com/2026/03/25/artificial-intelligence-uncovers-more-than-100-new-worlds-in-nasa-data/>

Image Credit: NASA, ESA, and A. Schaller
(for STScI)

JWST Spies Once-hidden Starbirth Crèche

- This is an infrared picture taken by MIRI (Mid Infra Red Camera)
- It shows a giant starbirth region, called Westerhout 51 (W51) in our Galaxy
- Swirls of interstellar gas are being lit up by massive young newborn stars
- This detail could not be seen in visible light, which is absorbed by the clouds of gas and dust



<https://www.universetoday.com/articles/jwst-spies-once-hidden-treasures-in-the-w51-starbirth-crche>

Image credit: NASA, ESA, CSA, Yoo & Ginsburg (UF). Image processing: A Pagan (STScI)

Some Galaxies are Missing Their Dark Matter

- Most galaxies are held together by dark matter
- However, some galaxies appear to be missing dark matter!
- This image is the 3rd such galaxy to be found
- It is thought that such galaxies are the result of collisions
- The dark matter in the galaxies does not interact, but the gas clouds do interact, and this triggers a burst of star formation



<https://www.universetoday.com/articles/astronomers-find-a-third-galaxy-missing-its-dark-matter-validating-a-violent-cosmic-collision-theory>

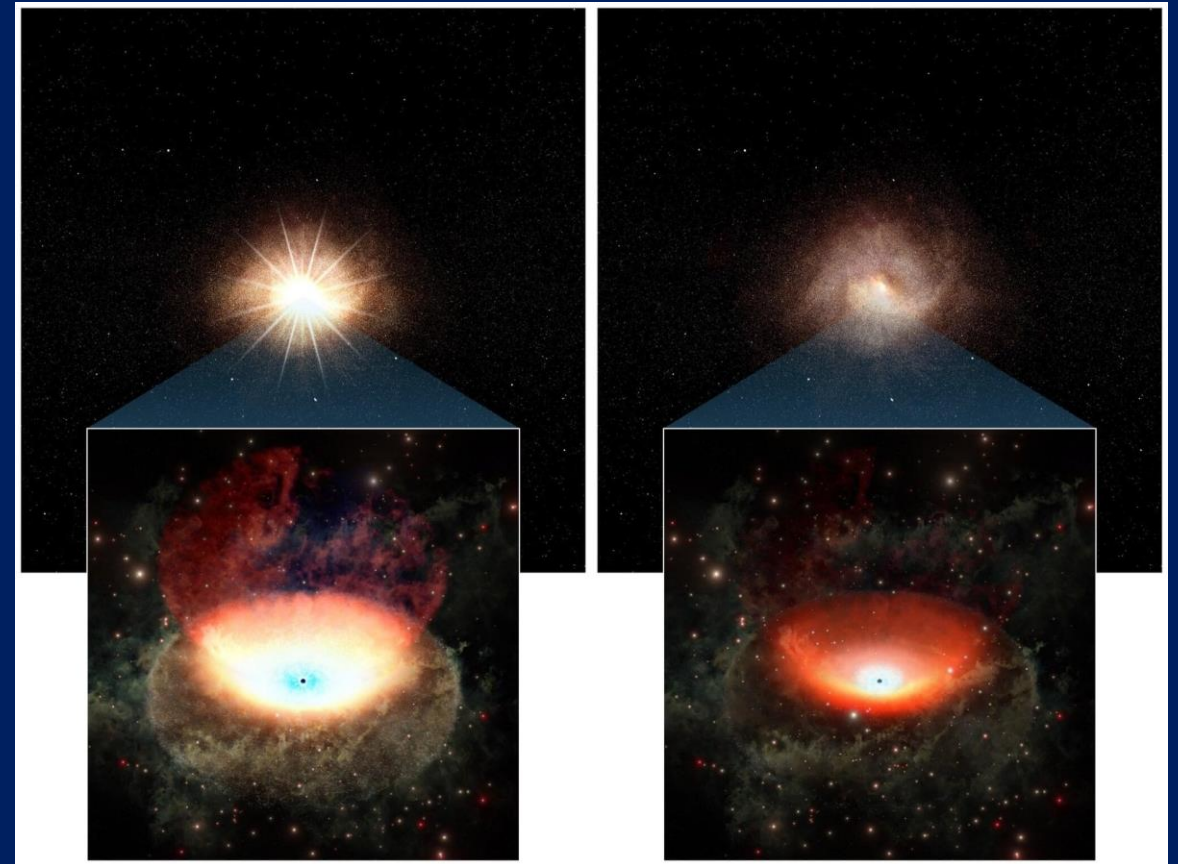
Image credit: Credit - NASA, ESA, and P. van Dokkum (Yale)

Black Hole Runs Out of Gas, Rapidly Dims its Galaxy

- Some galaxies have an active nucleus (AGN)
- This is due to a massive black hole in the centre pulling gas inwards, which gets heated and emits radiation
- Once the material around the galactic nucleus is used up, the accretion disc around the black hole will dim
- This has happened to Galaxy J0218-0036

<https://www.universetoday.com/articles/black-hole-runs-out-of-gas-rapidly-dims-its-galaxy>

Artists Impression



Credit: Chiba Institute of Technology

More Space Shorts Volunteers Needed!

- Offers the opportunity to make short presentations (*ca.* 5-10 minutes)
- Each story has a link so members can follow up on those that interest them
- The full presentation will be emailed to members after the meeting
- Send offers to present to Sandy 1-2 weeks before the meeting
- Let Sandy know if you need help to do the presentation

Resources

space.com	eso.org/public/news	nasa.gov/news/all-news
spacenews.com	phys.org/space-news	astronomynow.co./category/news
universetoday.com	livescience.com/space	bbc.co.uk/news/science_and_environment