# Cosmology/Astrophysics News

James Webb telescope is on its way! December 2021 for Rose City Astronomers SIG

#### Nature – December 2, 2021

- Robotic sample return reveals lunar secrets
  - https://www.nature.com/articles/d41586-021-03547-7
  - https://www.nature.com/articles/s41586-021-04119-5
  - https://www.nature.com/articles/s41586-021-04107-9
  - https://www.nature.com/articles/s41586-021-04100-2

#### Science – December 3, 2021

- GJ 367b: A dense, ultrashort –period sub-Earth planet transiting a nearby red dwarf star
  - https://www.science.org/doi/10.1126/science.aay3253

#### Nature – December 9, 2021

- A planetary system with a peculiarly peaceful past
  - https://www.nature.com/articles/s41550-021-01518-6
- China's Mars rover has amassed reams of geological data
  - https://www.nature.com/articles/d41586-021-03554-8
- Giant planet imaged orbiting two massive stars
  - https://www.nature.com/articles/d41586-021-03607-y
- A wide-orbit giant planet in the high-mass b Centauri binary system
  - https://www.nature.com/articles/s41586-021-04124-8

### Science – December 10, 2021

- X-ray telescope to study how magnetic objects sculpt light
  - https://www.science.org/content/article/nasa-telescope-study-how-extreme-cosmic-objects-sculpt-x-ray-light
- Martian water escape and internal waves
  - https://www.science.org/doi/10.1126/science.abg5893

#### Nature – December 16, 2021

- Sublimation-driven convection in Sputnik Planitia on Pluto
  - https://www.nature.com/articles/s41586-021-04095-w
- Direct limits for scalar field dark matter from a gravitational-wave detector
  - https://www.nature.com/articles/s41586-021-04031-y

# Science – December 17, 2021

- NASA lander uncovers the Red Planet's core
  - https://www.space.com/mars-subsurface-map-from-insight-wind-sound

# Nature – December 23/30, 2021

- Very-high-frequency oscillations in the main peak of a magnetar giant flare
  - https://www.nature.com/articles/s41586-021-04101-1

# Science – December 24, 2021

- With double pulsar, theory of gravity passes toughest test yet
  - https://www.science.org/content/article/double-pulsar-data-helps-einstein-s-theory-gravity-pass-toughest-test-yet

#### Miscellaneous

- Next in-person meeting will be when pandemic is over. Please stay safe!
- In the meantime, I will post this monthly news possibly with zero or more videos and links to watch, as for example, these:
- <a href="https://spectrum.ieee.org/jupiter-auroras-jaxa-nasa">https://spectrum.ieee.org/jupiter-auroras-jaxa-nasa</a>
- https://youtu.be/hm7PSHXBvnw
- https://youtu.be/ZZset72bHLI & https://youtu.be/Vk5bxHetL4s