

# Cosmology/Astrophysics News

Ring Nebula from JWST MidInfraRed Instrument

August 2023 for Rose City Astronomers SIG

<http://101iq.com/RCA>

# Nature – August 3, 2023

- Seeing the galaxy with neutrinos
  - <https://www.nature.com/articles/d41586-023-02427-6>
- A rotating white dwarf shows different compositions on its opposite faces
  - <https://www.nature.com/articles/s41586-023-06171-9>
- A reflective, metal-rich atmosphere for GJ1214b from its JWST phase curve
  - <https://www.nature.com/articles/s41586-023-06159-5>
- Remote detection of a lunar granitic batholith at Compton-Belkovich
  - <https://www.nature.com/articles/s41586-023-06183-5>

# Science – August 4, 2023

- No cosmology/astrophysics this issue

# Nature – August 10, 2023

- A cool runaway greenhouse without surface magma ocean
  - <https://www.nature.com/articles/s41586-023-06258-3>
- A broadband thermal emission spectrum of the ultra-hot Jupiter WASP-18b
  - <https://www.nature.com/articles/s41586-023-06230-1>
- Sustained wet-dry cycling on early Mars
  - <https://www.nature.com/articles/s41586-023-06220-3>
- Martian dunes indicative of wind regime shift in line with end of ice age
  - <https://www.nature.com/articles/s41586-023-06206-1>

# Science – August 11, 2023

- No cosmology/astrophysics this issue

# Nature – August 17, 2023

- Water in the terrestrial planet-forming zone of the PDS70 disk
  - <https://www.nature.com/articles/s41586-023-06317-9>

# Science – August 18, 2023

- After a string of failures, Japan aims to launch x-ray telescope
  - <https://www.science.org/content/article/revolutionary-x-ray-sensor-probe-workings-black-holes-and-supernovae>
- Helium star that will become a magnetar
  - <https://www.science.org/doi/10.1126/science.ade3293>

# Nature – August 24, 2023

- No thick carbon dioxide atmosphere on the rocky exoplanet TRAPPIST-1c
  - <https://www.nature.com/articles/s41586-023-06232-z>



# Science – August 25, 2023

- Giant black hole (40 million solar masses) formed puzzlingly fast at dawn of cosmos
  - <https://www.science.org/content/article/giant-black-hole-formed-puzzlingly-fast-dawn-cosmos>
- Thin jets underlie the solar wind
  - <https://www.science.org/doi/full/10.1126/science.adj8002>
- Picoflare jets power the solar wind emerging from a coronal hole on the Sun
  - <https://www.science.org/doi/full/10.1126/science.ade5801>

# 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:
  - <https://www.youtube.com/watch?v=1eNN9L4rACs>
  - <https://www.youtube.com/watch?v=zUhOL38346Y>
  - <https://www.youtube.com/watch?v=4jtiHhWhpCY>
  - <https://www.youtube.com/watch?v=hpYWK4x5rUA>