

Cosmology/Astrophysics News

Pandora cluster from JWST

February 2023 for Rose City Astronomers SIG

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

Nature – February 2, 2023

- Has Earth's inner core stopped its strange spin?
 - <https://www.nature.com/articles/d41586-023-00167-1>
- A high-mass X-ray binary descended from an ultra-stripped supernova
 - <https://www.nature.com/articles/s41586-022-05618-9>

Science – February 3, 2023

- No cosmology/astrophysics news this issue

Nature – February 9, 2023

- Einstein's theory helps to reveal Jupiter's distant duplicate
 - <https://www.nature.com/articles/d41586-023-00232-9>
- Weird supernova remnant blows scientists' minds
 - <https://www.nature.com/articles/d41586-023-00202-1>
- A planetary ring in a surprising place
 - <https://www.nature.com/articles/d41586-023-00270-3>
- A dense ring of the trans-Neptunian object Quaoar outside its Roche limit
 - <https://www.nature.com/articles/d41586-023-00270-3>

Science – February 10, 2023

- No cosmology/astrophysics news this issue

Nature – February 16, 2023

- Scientists made a new kind of ice that might exist on distant moons
 - <https://www.nature.com/articles/d41586-023-00293-w>
- Spherical symmetry in the kilonova AT2017gfo/GW170817
 - <https://www.nature.com/articles/s41586-022-05616-x>

Science – February 17, 2023

- Chile radio telescope array gains keener vision

- <https://www.science.org/content/article/news-glance-darwin-s-letters-antiracism-science-and-protecting-lgbtq-field-researchers>

- The first dedicated ice giants mission

- <https://www.science.org/doi/10.1126/science.ade8446>

Nature – February 23, 2023

- [JWST opens a window on exoplanet skies](https://www.nature.com/articles/d41586-023-00394-6)
 - <https://www.nature.com/articles/d41586-023-00394-6>
- [Identification of carbon dioxide in an exoplanet atmosphere](https://www.nature.com/articles/s41586-022-05269-w.pdf)
 - <https://www.nature.com/articles/s41586-022-05269-w.pdf>
- [Early Release Science of the exoplanet WASP-39b with JWST NIRCам](https://www.nature.com/articles/s41586-022-05590-4.pdf)
 - <https://www.nature.com/articles/s41586-022-05590-4.pdf>
- [Early Release Science of the exoplanet WASP-39b with JWST NIRSpec PRISM](https://www.nature.com/articles/s41586-022-05677-y.pdf)
 - <https://www.nature.com/articles/s41586-022-05677-y.pdf>
- [Early Release Science of the exoplanet WASP-39b with JWST NIRSpec G395H](https://www.nature.com/articles/s41586-022-05591-3.pdf)
 - <https://www.nature.com/articles/s41586-022-05591-3.pdf>
- [Early Release Science of the exoplanet WASP-39b with JWST NIRISS](https://www.nature.com/articles/s41586-022-05674-1.pdf)
 - <https://www.nature.com/articles/s41586-022-05674-1.pdf>

Science – February 24, 2023

- **Analyzing asteroid Ryugu**
 - <https://www.science.org/doi/abs/10.1126/science.ade4188>
- **Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites**
 - <https://www.science.org/doi/10.1126/science.abn7850>
- **Formation and evolution of carbonaceous asteroid Ryugu: Direct evidence from returned samples**
 - <https://www.science.org/doi/10.1126/science.abn8671>
- **Noble gases and nitrogen in samples of asteroid Ryugu record its volatile sources and recent surface evolution**
 - <https://www.science.org/doi/10.1126/science.abo0431>
- **Soluble organic molecules in samples of the carbonaceous asteroid (162173) Ryugu**
 - <https://www.science.org/doi/10.1126/science.abn9033>
- **Macromolecular organic matter in samples of the asteroid (162173) Ryugu**
 - <https://www.science.org/doi/10.1126/science.abn9057>

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=ubCzcyQfqX4>
 - <https://www.youtube.com/watch?v=SN8nTQiWOYY>
 - <https://www.youtube.com/watch?v=lu4mH3Hmw2o>
 - <https://www.youtube.com/watch?v=3gg1OS435UE>