

Cosmology/Astrophysics News



Test image of NGC6946 "Fireworks Galaxy",
65 30-second exposures stacked.
Magnitude 9.6, 11.5 x 10 arc minutes.



Image from "Jimi Scope" built by Dan Gray &
Sidereal Technology team. 36 inch, F4 Alt/Az.

September 2022 for Rose City Astronomers SIG

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

Nature – September 1, 2022

- First sighting of a planet circling a future supernova
 - <https://www.aanda.org/articles/aa/abs/2022/08/aa43675-22/aa43675-22.html>
- Dark matter signal could be due to analysis error
 - <https://www.nature.com/articles/d41586-022-02222-9>
 - <https://arxiv.org/abs/2208.05158>

Science – September 2, 2022

- Carbon dioxide detected around alien world for first time
 - <https://www.science.org/content/article/carbon-dioxide-detected-around-alien-world-first-time>

Nature – September 8, 2022

- Webb telescope detects carbon dioxide on exoplanet
 - <https://www.nature.com/articles/d41586-022-02350-2>

Science – September 9, 2022

- Webb telescope snaps its first exoplanet
 - <https://blogs.nasa.gov/webb/2022/09/01/nasas-webb-takes-its-first-ever-direct-image-of-distant-world/>
- Three types of planets orbit red dwarfs
 - <https://www.science.org/doi/abs/10.1126/science.add7175?af=R>
- Density, not radius, separates rocky and water-rich small planets orbiting M dwarf stars
 - <https://arxiv.org/pdf/2209.03871.pdf>

Nature – September 15, 2022

- Webb telescope wows with first image of an exoplanet
 - <https://www.nature.com/articles/d41586-022-02807-4>

Science – September 16, 2022

- The Sun's magnetic fluxes might help explain the solar wind's different speeds
 - <https://www.science.org/content/article/whip-cracking-flux-sun-s-magnetic-field-could-explain-slow-solar-wind>
- NASA's asteroid deflection mission takes aim
 - <https://www.science.org/content/article/nasa-s-unprecedented-asteroid-deflection-mission-more-billiards-space-scientists-say>
- How Saturn got its tilt and its rings
 - <https://www.science.org/doi/10.1126/science.abq3184>
 - <https://www.science.org/doi/10.1126/science.abn1234>

Nature – September 22, 2022

- Giant stars turn to theft to snag jumbo planets
 - <https://www.nature.com/articles/d41586-022-02909-z>
- A fast radio burst source at a complex magnetized site in a barred galaxy
 - <https://www.nature.com/articles/s41586-022-05071-8>

Science – September 23, 2022

- Mars rover plan to return first rocks
 - <https://www.science.org/content/article/mars-rover-nears-milestone-ambitious-plan-return-first-rocks-another-planet>
- Searching for rare neutrinoless double-beta decay
 - <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.129.111801>

Nature – September 29, 2022

- NASA's Mars rover makes 'Fantastic' find in search for past life
 - <https://www.nature.com/articles/d41586-022-02968-2>
- Outer regions of galaxy clusters host megahaloes
 - <https://www.nature.com/articles/d41586-022-02972-6>
- Galaxy clusters enveloped by vast volumes of relativistic electrons
 - <https://www.nature.com/articles/s41586-022-05149-3>
- Observations of a Magellanic Corona
 - <https://www.nature.com/articles/s41586-022-05090-5>

Science – September 30, 2022

- Clash of the titans – neutrino detectors
 - <https://www.science.org/content/article/showdown-two-huge-neutrino-detectors-will-vie-probe-matter-s-origins>
- Earth was seasoned by countless blows
 - <https://www.science.org/doi/10.1126/science.add3199>
 - <https://www.science.org/doi/10.1126/science.abq7351>
- Aqueously altered igneous rocks samples on the floor of Jezero crater, Mars
 - <https://www.science.org/doi/10.1126/science.abo2196>
 - <https://www.science.org/doi/10.1126/science.abo2756>

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=D2GOeOSlkw>
 - <https://www.youtube.com/watch?v=z2yLMY6Mpw8>
 - <https://www.youtube.com/watch?v=QHa1vbwVaNU>
 - <https://www.youtube.com/watch?v=ZXbtBrbk3co>