

# Cosmology/Astrophysics News

A large, irregularly shaped asteroid with a highly textured, cratered surface, set against a black background. The surface is covered in numerous small craters and larger, more prominent features, giving it a rugged appearance.

Asteroid 162173  
Ryugu

May 22, 2019 for Rose City Astronomers SIG

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

# Science – April 5, 2019

- A glance into the end of a planetary system around a white dwarf – near-in, small planetesimals evaporating metals in disc around star
  - <https://science.sciencemag.org/content/364/6435/25>
  - <https://science.sciencemag.org/content/364/6435/66>

# Nature – April 11, 2019

- Four telescopes and an exoplanet
  - <https://gizmodo.com/astronomers-get-a-rare-direct-look-at-an-exoplanet-than-1833605924>
- Mars data deepen methane mystery – Trace Gas Orbiter has yet to find methane in first months of operation
  - <https://www.nature.com/articles/s41586-019-1096-4>
- A magnetar-powered X-ray transient as the aftermath of a binary neutron-star merger
  - <https://www.nature.com/articles/s41586-019-1079-5>

# Science – April 12, 2019

- NASA Twins Study
  - <https://www.nasa.gov/twins-study>

# Nature – April 18, 2019

- Picture created by Event Horizon Telescope is one of the strongest confirmations yet of Einstein's general relativity
  - <https://www.nature.com/articles/d41586-019-01155-0>

# Science – April 19, 2019

- Shadowy first image of black hole revealed
  - <https://science.sciencemag.org/content/364/6437/217>
- Traveling to the origins of the Solar System
  - Hayabusa2 mission
    - <https://science.sciencemag.org/content/364/6437/230>
    - <https://science.sciencemag.org/content/364/6437/268>
    - <https://science.sciencemag.org/content/364/6437/272>
    - <https://science.sciencemag.org/content/364/6437/eaaw0422>

# Nature – April 25, 2019

- The new frontier of gravitational waves
  - <https://doi.org/10.1038/s41586-019-1129-z>
- No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations
  - <https://doi.org/10.1038/s41586-019-1096-4>
- Martian dust storm impact on atmospheric H<sub>2</sub>O and D/H observed by ExoMars Trace Gas Orbiter
  - <https://doi.org/10.1038/s41586-019-1097-3>
- Observation of two-neutrino double electron capture in <sup>124</sup>Xe with XENON1T
  - <http://doi.org/10.1038/s41586-019-1124-4>

# Science – April 26, 2019

- First marsquake recorded April 6 by NASA's Mars InSight lander's seismometer
  - <https://mars.nasa.gov/news/8430/nasas-insight-detects-first-likely-quake-on-mars/?site=insight>



# Nature – May 2, 2019

- Nearby neutron-star merger explains the actinide abundances in the early Solar System
  - <https://www.nature.com/articles/s41586-019-1113-7>
- Black hole possibly ate neutron star
  - <https://www.nature.com/articles/d41586-019-01377-2>
  - <https://www.scientificamerican.com/article/gravitational-waves-hint-at-a-black-hole-eating-a-neutron-star/?redirect=1>

# Science – May 3, 2019

- No cosmology/astrophysics this issue

# Nature – May 9, 2019

- Moon's likeness to Earth explained
  - <http://doi.org/c45q>
- Algorithm nets Saturn's secrets – storms
  - <http://doi.org/c49d>

# Science – May 10, 2019

- No cosmology/astrophysics this issue

# Nature – May 16, 2019

- A rapidly changing jet orientation in the stellar-mass black-hole system V404 Cygni
  - <https://doi.org/10.1038/s41586-019-1152-0>
- Chang'E-4 initial spectroscopic identification of lunar far-side mantle-derived materials
  - <https://www.nature.com/articles/s41586-019-1189-0>

# Scientific American – May 2019

- No cosmology/astrophysics this issue

# Miscellaneous

- Next meeting will be June 19 (normal day)
- July meeting will be July 10 (1 week early)
- No meeting August
- September 18 – normal meeting day