

Cosmology/Astrophysics News



Blazar TXS 0506+056

Very high energy
neutrinos and cosmic
rays detected from
Blazar near Orion

July 18, 2018 for Rose City Astronomers SIG

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

Nature – June 14, 2018

- Higgs boson – top-quark interaction measured by LHC consistent with standard model
 - <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.120.231801>
- Stellar populations dominated by massive stars in dusty starburst galaxies across cosmic time
 - <https://www.nature.com/articles/s41586-018-0196-x>

Science – June 15, 2018

- Giant star in Arp299 being ripped apart by gargantuan black hole
 - <http://doi.org/cq2z>

Nature – June 21, 2018

- Organic compounds in dust grains before solar system's planets formed
 - <http://doi.org/cqyg>
- Missing matter found in the cosmic web
 - <https://www.nature.com/articles/d41586-018-05432-2>
 - <https://www.nature.com/articles/s41586-018-0204-1>

Science – June 22, 2018

- ALMA sees gaps in dust around young star HD163296 where planets are likely forming
 - <https://physics.aps.org/featured-article-pdf/10.1103/PhysRevLett.117.251101>
- A precise extragalactic test of general relativity
 - <https://www.eso.org/public/archives/releases/sciencepapers/eso1819/eso1819a.pdf>
- Benzene ice clouds in Titan's atmosphere
 - <http://science.sciencemag.org/content/360/6395/1311.1>
 - <https://arxiv.org/abs/1805.01414>

Nature – June 28, 2018

- Japanese mission reaches unexplored asteroid ryugu
 - <https://www.nature.com/articles/d41586-018-05544-9>
- Rapid formation of Mars
 - <https://www.nature.com/articles/s41586-018-0222-z>

Science – June 29, 2018

- Oumuamua is a comet after all
 - <https://www.space.com/41015-interstellar-visitor-oumuamua-comet-after-all.html>

Nature – July 5, 2018

- Mars's rivers ran with rain
 - <https://news.uchicago.edu/story/rain-or-snow-likely-formed-martian-rivers>
- General relativity passes another test
 - <https://www.nature.com/articles/s41586-018-0265-1>

Science – July 6, 2018

- Optical interferometers sharpen views of the sky – Magdalena Ridge Observatory Interferometer will have resolution equivalent to 347 meter telescope
 - <http://science.sciencemag.org/content/361/6397/12>

Nature – July 12, 2018

- Non-gravitational acceleration in the trajectory of 1I/2017 U1 ('Oumuamua) - may be a comet
 - <https://www.nature.com/articles/s41586-018-0254-4>
 - http://www.spacetelescope.org/static/archives/releases/science_papers/heic1813/heic1813a.pdf

Science – July 13, 2018

- ICE reveals a messenger from a blazing galaxy
 - <http://science.sciencemag.org/content/361/6398/115>
 - <http://science.sciencemag.org/content/361/6398/eaat1378>
 - <http://science.sciencemag.org/content/361/6398/147>

Miscellaneous

- High Energy Neutrinos from Blazar TXS0506+056
 - https://www.youtube.com/watch?v=je_3bLbiGKQ
 - <https://www.sciencealert.com/high-energy-neutrino-cosmic-rays-pinpointed-to-source-blazar-txs-0506-056>
 - <https://www.youtube.com/watch?v=pCA47Fo5Yvk>
 - <https://arxiv.org/pdf/1807.04461.pdf>
 - <https://arxiv.org/pdf/1802.08165.pdf>
- ETA Carinae shooting cosmic rays at Earth:
 - https://www.upi.com/Science_News/2018/07/03/Massive-star-system-Eta-Carinae-is-shooting-cosmic-rays-at-Earth/2571530633911/?utm_source=sec&utm_campaign=si&utm_medium=13
- 12 new minimoons discovered around Jupiter
 - <https://www.cnn.com/2018/07/17/us/jupiter-12-new-moons/index.html>

Scientific American – July 2018

- Crossing the quantum divide

- <https://www.nature.com/scientificamerican/journal/v319/n1/full/scientificamerican0718-28.html>