

# Cosmology/Astrophysics News



Gravitational wave Optical  
Transient Observatory (GOTO)

<https://www2.warwick.ac.uk/fac/sci/physics/research/astro/research/goto/>

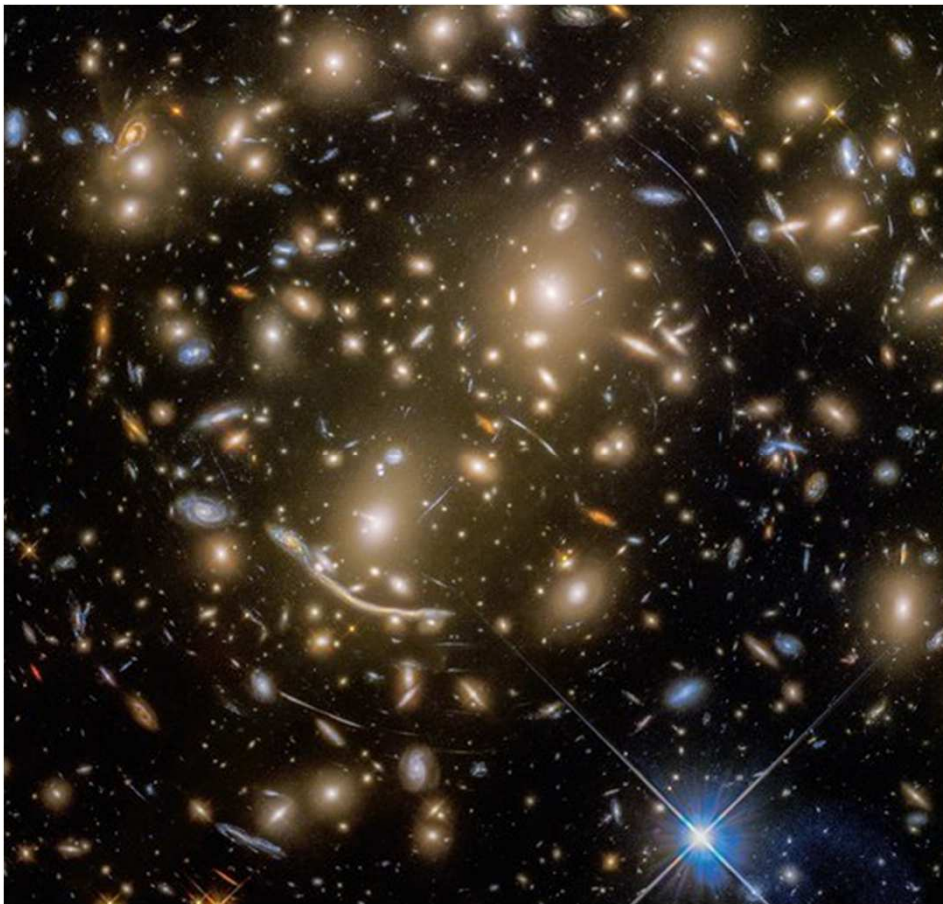
June 21, 2017

for Rose City Astronomers SIG

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

# Science – May 12, 2017

- Peering through a galaxy cluster
  - [http://www.sciencemagazinedigital.org/sciencemagazine/12\\_may\\_2017\\_Main?pg=8#pg8](http://www.sciencemagazinedigital.org/sciencemagazine/12_may_2017_Main?pg=8#pg8)



# Nature – May 18, 2017

- No cosmology news this issue

# Science – May 19, 2017

- Global drainage patterns and the origins of topographic relief on Earth, Mars, and Titan
  - <http://science.sciencemag.org/content/356/6339/727>

# Nature – May 25, 2017

- **Quasars signpost massive galaxies** - The neighborhoods of extremely bright astronomical objects called quasars in the early Universe have been incompletely probed. Observations suggest that these regions harbor some of the most massive known galaxies.
  - <https://www.nature.com/nature/journal/v545/n7655/full/545418a.html>
- **Rapidly star-forming galaxies adjacent to quasars at redshifts exceeding 6**
  - [http://www.nature.com/nature/journal/v545/n7655/full/nature22358.html?WT.feed\\_name=subjects\\_physical-sciences](http://www.nature.com/nature/journal/v545/n7655/full/nature22358.html?WT.feed_name=subjects_physical-sciences)

# Science – May 26, 2017

- Dark matter hunters raise the bar
  - [http://www.sciencemagazinedigital.org/sciencemagazine/26\\_may\\_2017?folio=786&pg=10#pg10](http://www.sciencemagazinedigital.org/sciencemagazine/26_may_2017?folio=786&pg=10#pg10)
- Lofty telescope will survey the cool universe - Cerro Chajnantor Atacama Telescope-prime (CCAT-p)
  - <http://science.sciencemag.org/content/356/6340/789>
- Jupiter's interior and deep atmosphere: The initial pole-to-pole passes with the Juno spacecraft
  - <http://science.sciencemag.org/content/356/6340/821>
- Jupiter's magnetosphere and aurorae observed by the Juno spacecraft during its first polar orbits
  - <http://science.sciencemag.org/content/356/6340/826>

# Nature – June 1, 2017

- **Explosive origins for antimatter** - White dwarf supernovae might be generating positrons
  - <https://www.nature.com/articles/n-12313510>
- **Papers on Jupiter** - A deep ammonia plume and a powerful magnetic field are among the many surprises uncovered by the Juno mission
  - <http://go.nature.com/2r5yrum>
- **Neutron stars to open their heavy hearts** - NASA's Neutron Star Interior Composition Explorer (NICER), a washing-machine-sized box, will use X-rays coming from hotspots at the spinning stars' poles to calculate the size of the stars.
  - [https://www.nature.com/polopoly\\_fs/1.22070.1496164637!/menu/main/topColumns/topLeftColumn/pdf/546018a.pdf?origin=ppub](https://www.nature.com/polopoly_fs/1.22070.1496164637!/menu/main/topColumns/topLeftColumn/pdf/546018a.pdf?origin=ppub)

# Science – June 2, 2017

- LIGO's latest: Space ripples may untangle black hole tango
  - <http://www.sciencemag.org/news/2017/06/ligo-s-latest-space-ripples-may-untangle-black-hole-tango>
- Redox stratification of an ancient lake in Gale crater, Mars
  - <http://science.sciencemag.org/content/356/6341/eaah6849>



# Nature – June 8, 2017

- Mars crater was habitable - Diagenetic silica enrichment and late-stage groundwater activity in Gale crater, Mars
  - <http://doi.org/b7x6>
- Two new moons have been found orbiting Jupiter, bringing the Jovian family count up to 66 natural satellites
  - <http://news.nationalgeographic.com/news/2012/02/120202-new-moons-jupiter-satellites-swarm-space-science/>
- Black hole collision - LIGO found another event and is analyzing 6 other potential events
  - [https://www.nytimes.com/2017/06/01/science/black-holes-collision-ligo-gravitational-waves.html?\\_r=0](https://www.nytimes.com/2017/06/01/science/black-holes-collision-ligo-gravitational-waves.html?_r=0)
- LIGO black hole echoes hint at general-relativity breakdown - Gravitational-wave data show tentative signs of firewalls or other exotic physics. - Physicists have analysed the publicly released data from the Laser Interferometer Gravitational-Wave Observatory (LIGO), and claim to have found “echoes” of the waves that seem to contradict general relativity’s prediction. More data will reveal truth.
  - <http://www.nature.com/news/ligo-black-hole-echoes-hint-at-general-relativity-breakdown-1.21135>

# Science – June 9, 2017

- Far off signs of life ingredient - methyl isocyanate
  - [http://www.sciencemagazinedigital.org/sciencemagazine/09\\_june\\_2017?pg=12#pg12](http://www.sciencemagazinedigital.org/sciencemagazine/09_june_2017?pg=12#pg12)
- An exoplanet hotter than most stars - The planet, KELT-9b, orbits an A-type star with a surface temperature of 10,200 K
  - <http://science.sciencemag.org/content/356/6342/990.full>
- A centennial gift from Einstein - Deflection of a distant star's light provides a solution to the puzzling mass of a nearby white dwarf star.
  - <http://science.sciencemag.org/content/early/2017/06/06/science.aan2996>
  - <http://science.sciencemag.org/content/early/2017/06/06/science.aal2879.full>
- Comets contributed to Earth's atmosphere - Xenon isotopes in 67P/Churyumov-Gerasimenko show that comets contributed to Earth's atmosphere
  - <http://science.sciencemag.org/content/356/6342/1040.5>
  - <http://science.sciencemag.org/content/356/6342/1069>

# Nature – June 15, 2017

- 20% of Earth's Xenon came from comets

# Scientific American – June 2017

- The Quantum Multiverse

- <http://www.nature.com/scientificamerican/journal/v316/n6/full/scientificamerican0617-28.html>
- [http://www.nature.com/scientificamerican/journal/v316/n6/box/scientificamerican0617-28 BX1.html](http://www.nature.com/scientificamerican/journal/v316/n6/box/scientificamerican0617-28_BX1.html)

# Miscellaneous

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