



Prominences:

Cosmology/Astrophysics News

September 20, 2017
for Rose City Astronomers SIG

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

Science – July 14, 2017

- 11 year Solar cycle depends on ratio of inertial and Coriolis forces
 - <http://science.sciencemag.org/content/357/6347/185>

Nature – July 20, 2017

- 3rd gravitational wave signal hints at histories of precursor stars
 - <http://www.nature.com/nature/journal/v547/n7663/full/547284a.html>

Science – July 21, 2017

- Juno craft takes photos of Jupiter's red spot
 - <https://www.nasa.gov/feature/jpl/nasa-s-juno-spacecraft-spots-jupiter-s-great-red-spot>



Nature – July 27, 2017

- Proton is 296 parts per trillion less massive than previously thought..
 - <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.119.033001>
- Square Kilometer Array funding
 - <https://www.nature.com/news/giant-radio-telescope-scaled-back-to-contain-costs-1.22361>
- Earth-sized free-floating planets
 - <http://www.nature.com/nature/journal/v548/n7666/full/nature23276.html>
- Polarization of Gamma Ray Burst 160625B
 - <http://www.nature.com/nature/journal/v548/n7666/full/nature23276.html>

Science – July 28, 2017

- No cosmology news this issue

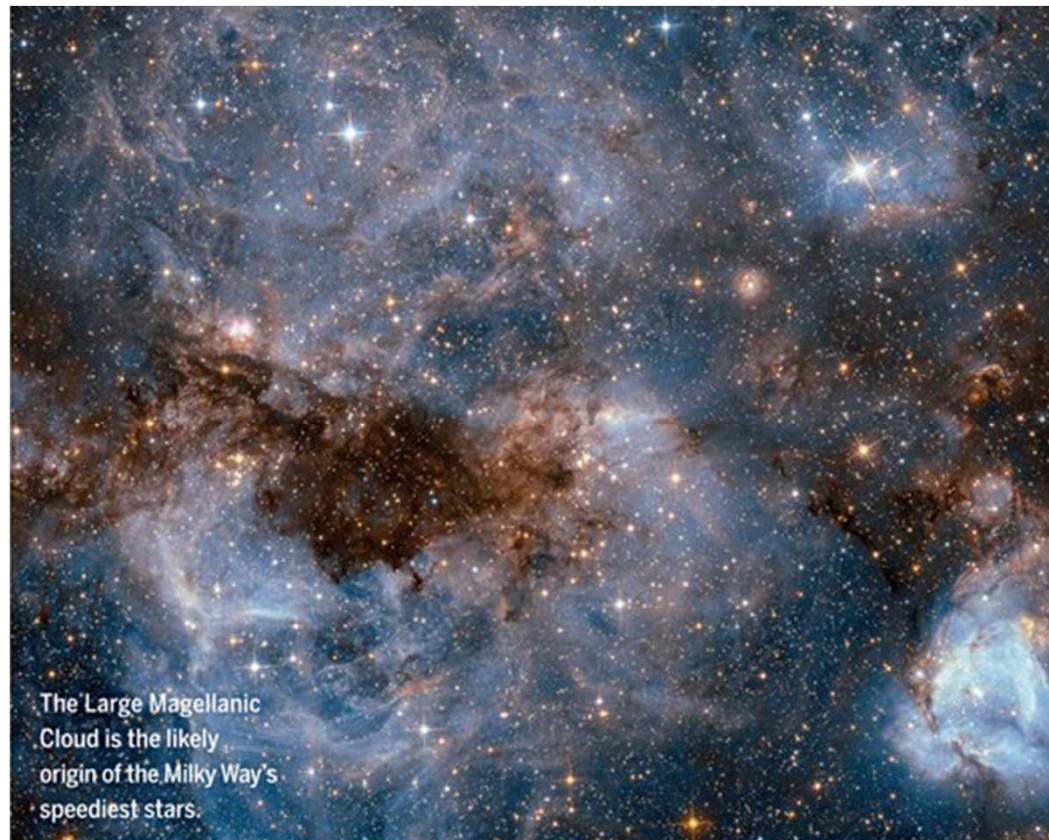
Nature – August 3, 2017

- Half of Milky Way blew in from afar
 - <https://academic.oup.com/mnras/article-abstract/470/4/4698/3871367/The-cosmic-baryon-cycle-and-galaxy-mass-assembly>
- Antimatter Race
 - https://www.nature.com/polopoly_fs/1.22383!/menu/main/topColumns/topLeftColumn/pdf/548020a.pdf?origin=ppub
- Fastest rotating fluid – quark-gluon plasma
 - <http://www.nature.com/nature/journal/v548/n7665/full/548034a.html>
- Ozone-like layer in an exoplanet atmosphere
 - <http://www.nature.com/nature/journal/v548/n7665/full/548038b.html>
- Ultrahot gas-giant exoplanet with a stratosphere
 - <http://www.quantum-enigma.com/2017/08/researchers-detect-exoplanet-with.html>

Science – July 7, 2017

- Runaway star fled nearby galaxy

- http://www.sciencemaginedigital.org/sciencemagazine/07_july_2017?pg=8#pg8



Nature – July 13, 2017

- Puzzling binary star detected – WD1202-024
 - <https://www.nature.com/articles/d41586-017-01165-w>
- Stardust goes organic – complex organic molecules in embryonic star Haro-212
 - <https://www.eso.org/public/usa/news/eso1513/>
- Suppressing quantum noise could make gravitational wave detectors more sensitive
 - <http://www.nature.com/news/tricks-to-mute-quantum-noise-aid-hunt-for-gravitational-waves-1.22286>
- Witness gravity's quantum side in the lab
 - <http://www.nature.com/news/witness-gravity-s-quantum-side-in-the-lab-1.22273>
- Sensing beyond the quantum limit
 - <http://www.nature.com/nature/journal/v547/n7662/full/547164a.html>
 - <http://www.nature.com/nature/journal/v547/n7662/full/nature22980.html>

Science – August 4, 2017

- Virgo joins LIGO's black hole hunt
- Haiku for each element
 - <http://vis.sciencemag.org/chemhaiku/>

Nature – August 10, 2017

- Cosmic map reveals a not-so-lumpy Universe
 - <http://www.nature.com/news/cosmic-map-reveals-a-not-so-lumpy-universe-1.22413>
- Eclipse promises to reveal mysteries of Sun's corona
 - https://www.nature.com/polopoly_fs/1.22434!/menu/main/topColumns/topLeftColumn/pdf/548146a.pdf?origin=ppub
- No large population of unbound or wide-orbit Jupiter-mass planets
 - <http://www.nature.com/nature/journal/v548/n7666/full/nature23276.html>

Science – August 11, 2017

- Survey finds galaxy clumps stirred up by dark energy
 - <http://science.sciencemag.org/content/357/6351/537>

Nature – August 17, 2017

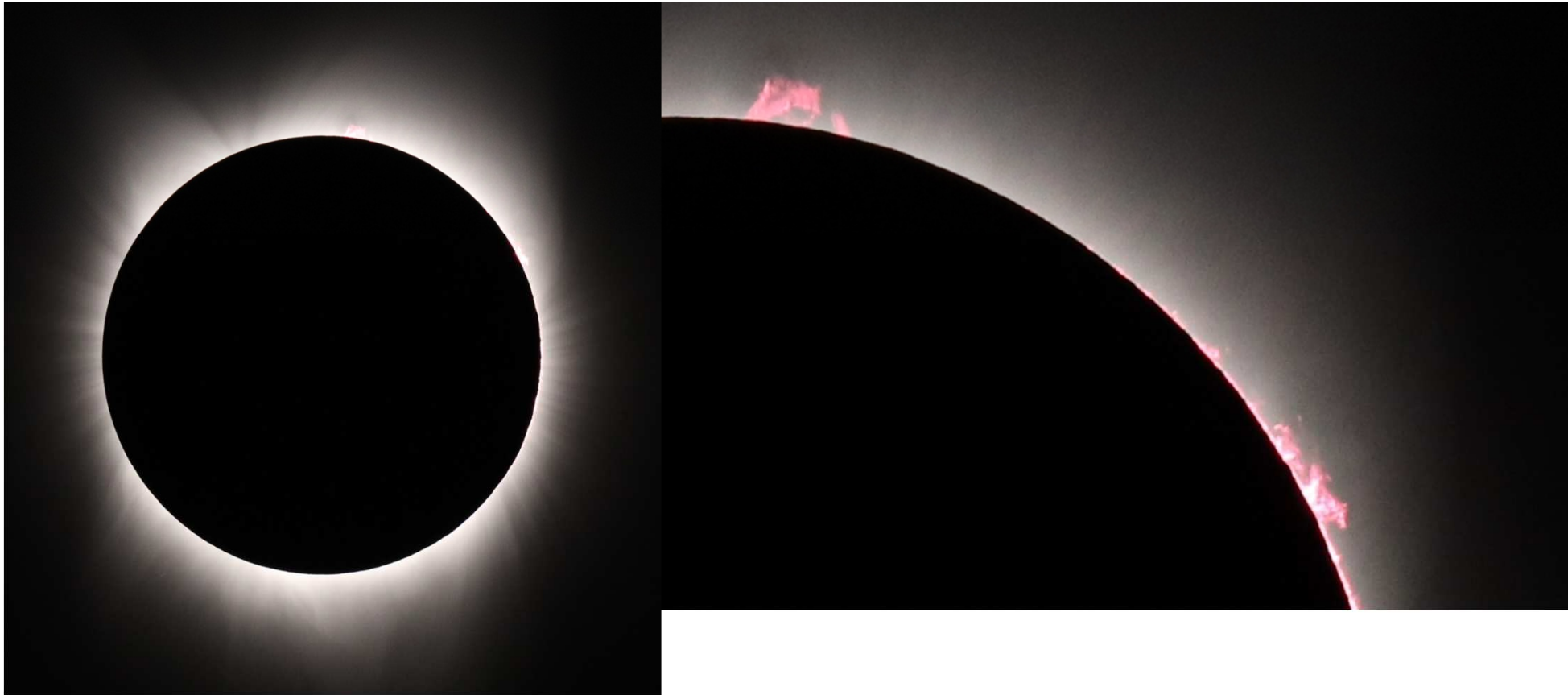
- A turbulent stellar atmosphere in full view
 - <http://www.nature.com/nature/journal/v548/n7667/full/548288a.html>
- Ram-pressure feeding of supermassive black holes
 - <http://www.nature.com/nature/journal/v548/n7667/full/nature23462.html>
 - https://www.eso.org/public/archives/releases/sciencepapers/eso1725/poggianti_final_bis_withfigs.pdf
- Vigorous atmospheric motion in the red supergiant star Antares
 - <http://www.nature.com/nature/journal/v548/n7667/full/nature23445.html>
 - <https://www.eso.org/public/archives/releases/sciencepapers/eso1726/eso1726a.pdf>

Science – August 18, 2017

- Heavy elements are intergalactic travelers
 - <http://science.sciencemag.org/content/357/6352/657.3>
- An unusual white dwarf star may be a surviving remnant of a subluminous Type Ia supernova
 - <http://science.sciencemag.org/content/357/6352/680>
- Zones, spots, and planetary-scale waves beating in brown dwarf atmospheres
 - <http://science.sciencemag.org/content/357/6352/683>

The Eclipse August 21, 2017!

- Video: <https://www.youtube.com/watch?v=1yZzXMh987k>



Nature – August 24, 2017

- Light scatters off light
 - <http://doi.org/cbxn>
 - <http://physicsworld.com/cws/article/news/2017/aug/18/light-is-seen-to-scatter-off-light>
- Standard candles might not be standard
 - <http://arxiv.org/abs/1706.08990>
 - <http://www.nature.com/news/supernova-s-messy-birth-casts-doubt-on-reliability-of-astronomical-yardstick-1.22066>
- History of black holes revealed by their spin
 - <http://www.nature.com/nature/journal/v548/n7668/full/548397a.html>
- Distinguishing spin-aligned and isotropic black hole populations with gravitational waves
 - <http://www.nature.com/nature/journal/v548/n7668/full/nature23453.html>
- Large turbulent reservoirs of cold molecular gas around high-redshift starburst galaxies
 - <http://www.nature.com/nature/journal/v548/n7668/full/nature23298.html>

Science – August 25, 2017

- Day of Darkness (Eclipse)

- http://www.sciencemagazinedigital.org/sciencemagazine/25_august_2017?pg=8#pg8



Nature – August 31, 2017

- How lenticular galaxies emerge
 - <https://www.aanda.org/articles/aa/abs/2017/08/aa28821-16/aa28821-16.html>
- Gravitational waves from NGC4993
 - <http://go.nature.com/2w46ja8>
- 13 Years of Cassini
 - <http://www.nature.com/news/cassini-s-13-years-of-stunning-saturn-science-in-pictures-1.22514>
- Long term effects of novae
 - http://www.nature.com/nature/journal/v548/n7669/full/548526a.html?WT.feed_name=subjects_physics
 - <http://www.nature.com/nature/journal/v548/n7669/full/nature23644.html>
- Fast automated analysis of strong gravitational lenses with convolutional neural network
 - <http://www.nature.com/nature/journal/v548/n7669/full/nature23463.html>

Science – September 1, 2017

- No cosmology news this issue

Nature – September 7, 2017

- Discrete and broadband electron acceleration in Jupiter's powerful aurora
 - <http://www.nature.com/nature/journal/v549/n7670/full/nature23648.html>

Science – September 8, 2017

- Meet the primordial asteroid family
 - <http://science.sciencemag.org/content/357/6355/972>
 - <http://science.sciencemag.org/content/early/2017/08/02/science.aam6036>

Nature – September 14, 2017

- 100,000 solar mass black hole at center of Milky Way
 - <http://doi.org/ccsb>
- Detection of titanium oxide in the atmosphere of a hot Jupiter
 - <http://www.nature.com/nature/journal/v549/n7671/full/nature23651.html>

Scientific American – August 2017

- The great solar eclipse of 2017
 - <https://www.scientificamerican.com/report/the-great-solar-eclipse-of-2017/>
- 1000 years of solar eclipses

Scientific American – September 2017

- No cosmology news this issue