



Cosmology/Astrophysics News

July 23, 2014

for Rose City Astronomers SIG

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

Science – June 13, 2014

- Venus Express spacecraft to aerobrake through Venus atmosphere June 18 – July 11 (page 1209)
- Germany drops out of Square Kilometer Array
 - <http://www.sciencemag.org/content/344/6189/1208.3.summary>
 - (page 1209)

Nature – June 19, 2014

- 4-quark particle confirmed Z(4430) at CERN.
First spotted in Belle detector in Japan.
 - See Phys. Review Letters 112.222022 (2014)

Science – June 20, 2014

- Hubble helps find Kuiper belt objects for New Horizons to observe
 - <http://scim.ag/HorizonsHubble>
- NSF to support only one astronomy proposal per year
 - <http://www.sciencemag.org/content/344/6190/1328.summary>

Nature – June 26, 2014

- Satellites show Earth's magnetic field weakening 5% per century, north pole moving to Siberia
 - <http://www.nature.com/news/seven-days-20-26-june-2014-1.15449>
- A cool way to measure big G
 - <http://www.nature.com/nature/journal/v510/n7506/full/nature13507.html>

Scientific American – July 2014

- A Moonlet is Born – Saturn’s rings appear to have spawned a small satellite
 - <http://www.scientificamerican.com/article/saturn-s-rings-birth-a-new-moon/>
- A Glimpse at the Unseen – Fermi gamma ray telescope might be showing signs of dark matter at galaxy center
 - <http://www.scientificamerican.com/article/the-first-indirect-detection-of-dark-matter/>
- Giant Bubbles of the Milky Way
 - <http://www.scientificamerican.com/article/giant-bubbles-tower-over-the-milky-way/>
 - Fermi Gamma-ray space telescope finds 10,000 light year bubbles of particles and radiation above and below the center of the Milky Way. May have been due to the central black hole’s accretion of something a million years ago.

Science – June 27, 2014

- Blast clears way for telescope
 - Blasted top of Cerro Armazones 3000 peak in Chile for 39-meter European Extremely Large Telescope, first light in 2024.

Nature – July 3, 2014

- Mars landing gear passes first test
 - Saucer shaped low-density supersonic decelerator, uses new parachute and inflatable Kevlar ring
- X-ray space scope
 - Europe to launch biggest X-ray observatory in 2028
- Planets in Chaos
 - Discovery of 1000's of star systems wildly different than ours demolishes planet formation theory, need new theory.
 - <http://www.nature.com/news/astronomy-planets-in-chaos-1.15480>
- A tight duo in a trio of black holes
 - Looking for pairs of black holes emitting gravitational waves
 - <http://www.nature.com/nature/journal/v511/n7507/full/nature13511.html>

Science – July 4, 2014

- No new cosmology news

Scientific American – August 2014

- Rendezvous with a Comet
 - <http://www.scientificamerican.com/article/rendezvous-with-a-comet/>
 - Rosetta spacecraft to orbit comet 67P/Churyumov-Gerasimenko in August 2014, then land a probe on it...
- The Black Hole at the Beginning of Time
 - Universe might have come from black hole spinning in a 4-dimensional space
 - <http://www.scientificamerican.com/article/the-black-hole-that-birtherd-the-big-bang/>

Nature – July 10, 2014

- No cosmology news

Science – July 11, 2014

- A font of cosmic rays
 - Cosmic rays seems to come from certain hot spots
 - <http://scim.ag/rayhotspot>

Nature – July 17, 2014

- Titan's sea is super salty
 - Outer 100km thick outer shell is thickening, below that is water with high concentrations of sulphur, potassium, sodium and other salts
- Russian rocket makes maiden flight – new model “Angara” is new generation
- Wave of the future
 - LIGO gravitational wave observatory is maybe on verge of detecting
 - <http://www.nature.com/news/physics-wave-of-the-future-1.15561>
- Survival of the largest
 - Theory and observations of supernovae creating most of the dust of the cosmos
 - <http://www.nature.com/nature/journal/vaop/ncurrent/full/nature13640.html>
 - <http://www.nature.com/nature/journal/vaop/ncurrent/full/nature13558.html>
- A deep crust –mantle boundary in the asteroid 4 Vesta
 - <http://www.nature.com/nature/journal/v511/n7509/full/nature13499.html>