



# Cosmology/Astrophysics News

March 19, 2014  
for Rose City Astronomers SIG

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

# Science – Feb. 14, 2014

- Sick Space Flies
  - <http://www.sciencemag.org/content/343/6172/710.1.full.pdf>
  - Long term space flight may compromise immune system based on experiments on flies
- India Poised to Join Hunt for Gravitational Waves
  - <http://www.sciencemag.org/content/343/6172/717.summary>
  - India to host third detector: LIGO-India
- CERN to Study Possibility of 100km Atom-Smasher
  - <http://www.sciencemag.org/content/343/6172/714.2.full.pdf>
  - Europe thinking about building pair of colliders 100km circumference

# Nature – Feb. 20, 2014

- Death of a comet
  - <http://www.nature.com/news/astronomy-death-of-a-comet-1.14741>
  - Studying the aftermath of comet ISON

# Science – Feb. 21, 2014

- New Neutrino May Have Heated Baby Universe
  - <http://www.sciencemag.org/content/343/6173/826.summary>
  - A new kind of neutrino (“sterile neutrinos”) may account for discrepancy about deficit in galaxy clusters (and some other puzzles) based on Planck spacecraft data on the Cosmic Background Radiation (CBR)

# Nature – Feb. 27, 2014

- Sao Paulo poised to join megatelescope
  - <http://www.nature.com/news/s%C3%A3o-paulo-poised-to-join-megatelescope-1.14766>
  - Brazil to invest in 25m Giant Magellan Telescope in Chile.
- Dwarf galaxy merger spotted
  - <http://www.nature.com/nature/journal/vaop/ncurrent/full/nature12995.html>
  - Found remnant of merger of two dwarf galaxies for the first time. Andromeda II
- Einstein's lost theory uncovered
  - <http://www.nature.com/news/einstein-s-lost-theory-uncovered-1.14767>
  - Einstein considered and abandoned steady state universe idea 20 years before Fred Hoyle.
- Optical trapping for space mirrors
  - <http://www.nature.com/nature/journal/v506/n7489/full/506437a.html>
  - Might be able to make giant mirrors in space by holding 3 micrometer size beads in place using lasers
- A single low-energy, iron-poor supernova...
  - <http://www.nature.com/nature/journal/v506/n7489/full/nature12990.html>
  - Low energy supernovae were common in early universe and contributed little iron
- High-precision measurement of the atomic mass of the electron
  - <http://www.nature.com/nature/journal/v506/n7489/full/nature13026.html>

# Scientific American – March 2014

- Dwarf Galaxies and the Dark Web
  - <http://www.nature.com/scientificamerican/journal/v310/n3/full/scientificamerican0314-46.html>
  - Dark Matter distribution may explain why groups of galaxies arrange themselves in a plane

# Science – Feb. 28, 2014

- Europe to Launch Hunt for Earth-Like Planets
  - <http://news.sciencemag.org/europe/2014/02/europe-launch-hunt-earth-exoplanets>
- Ordering Cosmic Rays
  - <http://www.sciencemag.org/content/343/6174/947.2.full.pdf>
  - Local stellar conditions play a role in ordering TEV cosmic rays in our cosmic vicinity

# Nature – Mar. 6, 2014

- Physics: Broaden the search for dark matter
  - <http://www.nature.com/news/physics-broaden-the-search-for-dark-matter-1.14795>



# Science – Mar. 7, 2014

- Feedback of the Magnetosphere
  - <http://www.sciencemag.org/content/343/6175/1086.summary>
  - Better understanding of how the magnetosphere and ionosphere fight off the solar wind

# Nature – Mar. 13, 2014

- Asteroid caught in the act of falling apart
  - <http://iopscience.iop.org/2041-8205/784/1/L8/>
  - Hubble space telescope sees asteroid breaking up
- History: A medieval multiverse
  - <http://www.nature.com/news/history-a-medieval-multiverse-1.14837>
  - Exploring scientific thought in the 13<sup>th</sup> century
- Cosmic lens reveals spinning black hole
  - <http://www.nature.com/nature/journal/v507/n7491/full/nature13209.html>
  - <http://www.nature.com/nature/journal/v507/n7491/full/nature13031.html>
- Higgs on the big screen
  - <http://www.nature.com/nature/journal/v507/n7491/full/507168a.html>
  - Movie “Particle Fever” limited cinema release March 5, 2014

# Science & Nature & IEEE March 2014

- Glimpse of the Universe's First Split Second Boosts Inflation Theory
  - <http://news.sciencemag.org/physics/2014/03/glimpse-universes-first-split-second-boosts-inflation-theory>
- Telescope captures view of gravitational waves
  - <http://www.nature.com/news/telescope-captures-view-of-gravitational-waves-1.14876>
- How astronomers saw gravitational waves from the Big Bang
  - <http://www.nature.com/news/how-astronomers-saw-gravitational-waves-from-the-big-bang-1.14885>
- How do you see gravitational waves
  - <http://spectrum.ieee.org/tech-talk/aerospace/astrophysics/how-do-you-see-gravitational-waves>
- All you need to know about gravitational waves
  - <http://www.nature.com/news/all-you-need-to-know-about-gravitational-waves-1.14886>