



Cosmology/Astrophysics News

October 22, 2014
for Rose City Astronomers SIG

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

Science – September 12, 2014

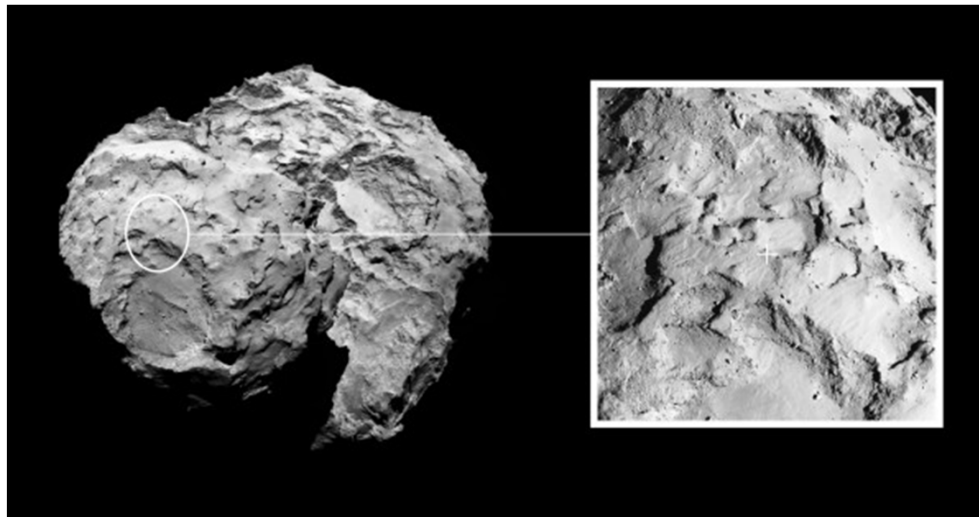
- NASA extends 7 missions: Cassini, Lunar & Mars Reconnaissance Orbiters, Mars Opportunity and Curiosity rovers, Mars Express, Mars Odyssey
 - <http://news.sciencemag.org/funding/2014/09/nasa-extends-seven-planetary-missions>
- Chaotic dynamics of stellar spin in binaries and the production of misaligned hot Jupiters
 - <http://www.sciencemag.org/content/345/6202/1317.abstract>
- Rapid growth of seed black holes in the early universe by supra-exponential accretion
 - <http://arxiv.org/abs/1408.1718>

Nature – September 18, 2014

- Landing site chosen on head of comet 67P/Churyumov-Gerasimenko for Rosetta's probe "Philae"
 - <http://www.nature.com/news/lander-to-aim-for-comet-s-head-1.15936>
- Indian Mars prepares for orbit
 - Due to start orbiting Sept 24
 - <http://www.nature.com/news/indian-mars-craft-prepares-for-orbit-1.15939>
- Giant black hole in a stripped galaxy
 - Suggests the system is the stripped nucleus of a once larger galaxy
 - <http://www.nature.com/nature/journal/v513/n7518/full/513322a.html>
- Section of articles on exoplanets: <http://nature.com/exoplanets>
 - Doppler spectroscopy as a path to the detection of Earth-like planets
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13780.html>
 - Advances in exoplanet science from Kepler
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13781.html>
 - Highlights in the study of exoplanets
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13782.html>
 - The role of space telescopes in the characterization of transiting exoplanets
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13783.html>
 - Instrumentation for the detection and characterization of exoplanets
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13784.html>
- A massive galaxy in its core formation phase three billion years after the big bang
 - <http://www.nature.com/nature/journal/v513/n7518/full/nature13616.html>
- A supermassive black hole in an ultra-compact dwarf galaxy
 - <http://www.nature.com/nature/journal/v513/n7518/abs/nature13762.html>

Science – September 19, 2014

- Rosetta lander aims for site “J”
 - <http://scim.ag/Rosettaland>



- All eyes on shooting stars
 - Cameras used to locate meteorite landing sites
 - http://www.sciencemagazinedigital.org/sciencemagazine/19_september_2014?folio=1434#pg18

Nature – September 25, 2014

- Arrival at Mars – NASA's Maven (Mars Atmospheric and Volatile Evolution) spacecraft entered orbit September 21
 - <http://go.nature.com/px22mw>
- Window on a watery world HAT-P-11b
 - Signs of water on a Neptune sized planet
 - <http://www.nature.com/nature/journal/v513/n7519/full/513493a.html>
 - <http://go.nature.com/RE3C1r>
- Early turbulent mixing as the origin of chemical homogeneity in open star clusters
 - <http://www.nature.com/nature/journal/v513/n7519/full/nature13662.html>

Scientific American – September 2014

- Nothing noteworthy for this issue

Scientific American – October 2014

- Earth's Impending Magnetic Flip

- <http://www.scientificamerican.com/article/earth-s-impending-magnetic-flip/>

- A Beacon from the Big Bang

- <http://www.nature.com/scientificamerican/journal/v311/n4/full/scientificamerican1014-58.html>

- Gravity waves... south pole observation story

Science – September 26, 2014

- Evidence for cosmic inflation wanes
 - Gravity waves – no, dust – yes
 - <http://www.sciencemag.org/content/345/6204/1547.summary>
- NOvA's shining moment
 - Will send neutrinos from Fermilab to NOvA detector in Minnesota
 - <http://www.sciencemag.org/content/345/6204/1555.summary>
- Evidence for global electron transportation in the jovian inner magnetosphere
 - May be responsible for exiting whistler-mode waves
 - <http://www.sciencemag.org/content/345/6204/1581.short>
- Detection of a branched alkyl molecule in the interstellar medium: iso-propyl cyanide
 - May mean that interstellar space also contains amino acids.. Needed for life..
 - <http://www.sciencemag.org/content/345/6204/1584.short>
- The ancient heritage of water ice in the solar system
 - Study suggests water is likely available in all nascent planetary systems
 - <http://www.sciencemag.org/content/345/6204/1590.short>

Nature – October 2, 2014

- NASA's Kepler back to work
 - Steadied by balancing frame against solar wind
- To catch a cosmic ray
 - In 10 years still has not found source
 - <http://www.nature.com/news/astronomy-to-catch-a-cosmic-ray-1.16037>
- Not just a storm in a teacup
 - Titan's south pole cloud is hydrogen cyanide
 - <http://www.nature.com/nature/journal/v514/n7520/full/514040a.html>
 - <http://www.nature.com/nature/journal/v514/n7520/full/nature13789.html>
- The age of the quasars
 - <http://www.nature.com/nature/journal/v514/n7520/full/514043a.html>
- Structure and evolution of the lunar Procellarum region as revealed by GRAIL gravity data
 - <http://www.nature.com/nature/journal/v514/n7520/full/nature13697.html>

Science – October 3, 2014

- Intruder from the Oort cloud will graze Mars
 - <http://news.sciencemag.org/space/2014/10/intruder-oort-cloud-will-graze-mars>

Nature – October 9, 2014

- 12 meter radio telescope on Kitt Peak (Arizona) has begun observations, prototype for Atacama Large Millimeter/Submillimeter Array (ALMA)
- Rivals join forces to nail down Big G
 - Only known to 3 digits for certain... experiments diverge
 - <http://www.nature.com/news/gravity-rivals-join-forces-to-nail-down-big-g-1.16090>
- The big reboot – LHC Large Hadron Collider coming back to life
 - <http://www.nature.com/news/large-hadron-collider-the-big-reboot-1.16095>
- Small field with a large impact
 - Nature of Ultraluminous X-ray sources still unclear
 - <http://www.nature.com/nature/journal/v514/n7521/full/514171a.html>
 - <http://www.nature.com/nature/journal/v514/n7521/full/nature13730.html>
 - <http://www.nature.com/nature/journal/v514/n7521/full/nature13791.html>
- Mass of a top (quark)
 - <http://www.nature.com/nature/journal/v514/n7521/full/514174a.html>

Science – October 9, 2014

- Do young star clusters follow the law?
 - http://www-bcf.usc.edu/~matthedd/PAPERS/dines_science_ec.pdf
- A class of warm Jupiters with mutually inclined, apsidally misaligned close friends
 - <http://www.sciencemag.org/content/346/6206/212.short>
- A local clue to the reionization of the universe
 - <http://www.sciencemag.org/content/346/6206/216.short>

Nature – October 16, 2014

- Space-weather hub
 - <http://go.nature.com/yuiplt>
- How tiny galaxies form stars
 - <http://www.nature.com/nature/journal/v514/n7522/full/514310a.html>
- Inefficient star formation in extremely metal poor galaxies
 - <http://www.nature.com/nature/journal/v514/n7522/full/nature13820.html>
- Binary orbits as the driver of gamma-ray emission and mass ejection in classical novae
 - <http://www.nature.com/nature/journal/v514/n7522/full/nature13773.html>

Science – October 17, 2014

- I don't have it yet