

Cosmology/Astrophysics News

April 22, 2015

for Rose City Astronomers SIG

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

Science – March 13, 2015

- A scaled-back radio array
 - First phase of square kilometer array scaled back to meet funding
 - http://www.sciencemaginedigital.org/sciencemagazine/13_march_2015?pg=14#pg14
- A young multilayered terrane of the northern Mare Imbrium revealed by Chang'E-3 mission
 - Chinese CE-3 craft exploring moon
 - <http://www.sciencemag.org/content/347/6227/1226.abstract>

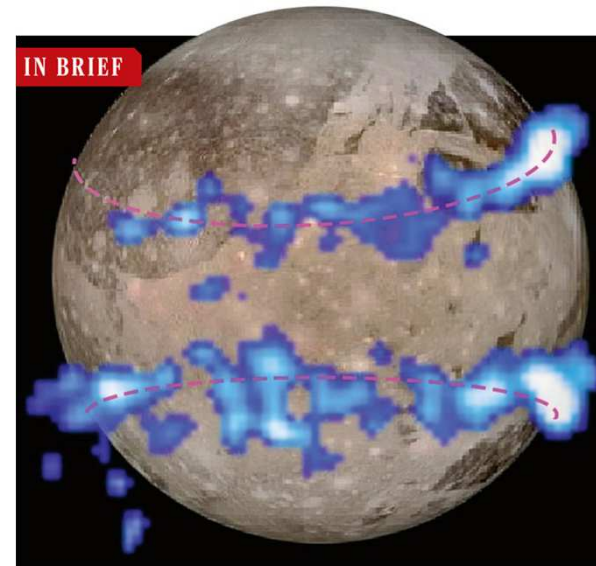
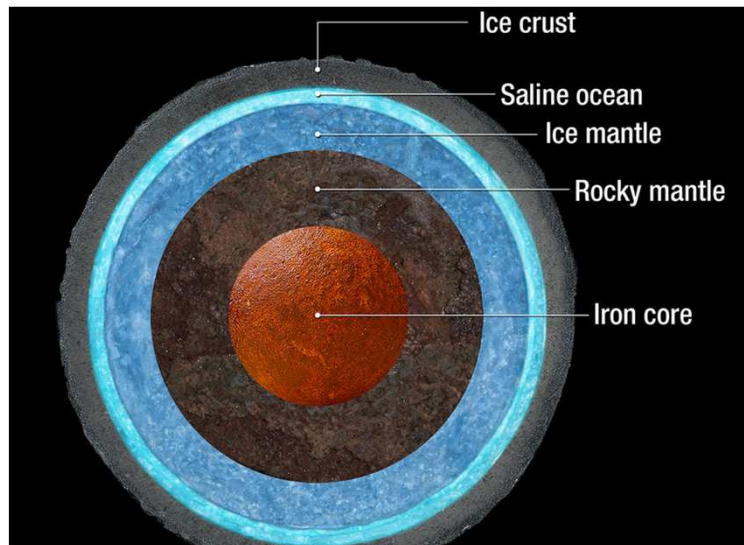
Nature – March 19 , 2015

- Milky Way has corrugated rings – from Sloan Digital Sky Survey, may have been caused by dwarf galaxy passing through.
 - <http://iopscience.iop.org/0004-637X/801/2/105/>
- Ganymede's ocean – characteristics of auroras show evidence for salt water ocean on solar systems largest moon
- NASA Magnetospheric Multiscale mission launched March 13
- Crunch time for Canada's role in mega-telescope (30 meter)
 - <http://www.nature.com/news/crunch-time-for-canada-s-role-in-mega-telescope-1.17130>
- Five Solar System sights NASA should visit
 - <http://www.nature.com/news/five-solar-system-sights-nasa-should-visit-1.17119>
 - Venus, Moon, Martian moons, Asteroids, Planetary volcanoes
- A dusty, normal galaxy in the epoch of reionization
 - <http://www.nature.com/nature/journal/v519/n7543/full/nature14164.html>
- Highly efficient star formation in NGC 5253 possibly from stream-fed accretion
 - http://www.nature.com/nature/journal/v519/n7543/full/nature14218.html?WT.ec_id=NATURE-20150319



Science – March 20, 2015

- The crucial role of surface magnetic fields for the solar dynamo
 - <http://www.sciencemag.org/content/347/6228/1333.abstract>
- Ganymede's hidden ocean
 - <http://www.bbc.com/news/science-environment-31855395>

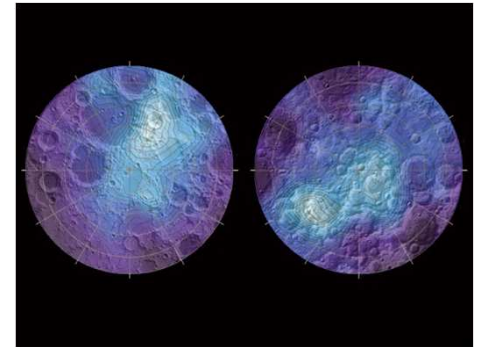


Nature – March 26, 2015

- Wind from the black-hole accretion disk driving a molecular outflow in an active galaxy
 - <http://www.nature.com/nature/journal/v519/n7544/full/nature14261.html>

Science – March 27, 2015

- Lopsided ice points to moon's polar shift
 - <http://scim.ag/lopsidedice>
- Gamma ray observatory opens
 - http://www.sciencemagazinedigital.org/sciencemagazine/27_march_2015?pg=11#pg11
- Mars rover finds long-chain organic compounds
 - <http://www.sciencemag.org/content/347/6229/1402.summary>
- The nongravitational interactions of dark matter in colliding galaxy clusters
 - <http://www.sciencemag.org/content/347/6229/1462>
- Ab initio calculation of the neutron-proton mass difference
 - <http://www.sciencemag.org/content/347/6229/1452.short>



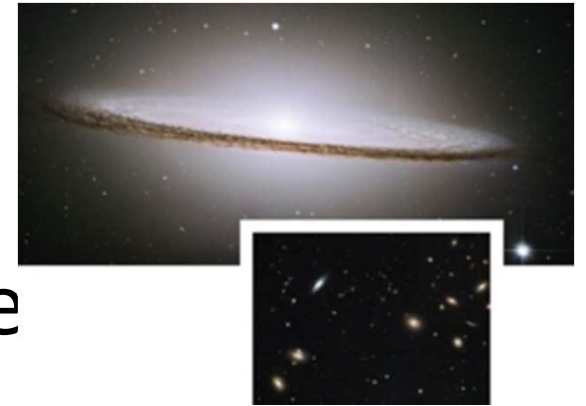
Scientific American – April 2015

- Galactic Ghost

- <http://www.scientificamerican.com/article/ghostly-galaxies-appear-in-the-coma-cluster/>

- Burning Rings of Fire – black hole conundrums

- <http://www.scientificamerican.com/article/firewall-black-hole-firewall-mystery-submit-your-questions-for-physicist-joseph-polchinski/>



Nature – April 2, 2015

- NASA to bring part of an asteroid into Moon orbit by 2025.
- Mexico and Spain being considered for Cherenkov Telescope Array location
- James Webb Space Telescope may be behind schedule for 2018 launch
- Preventing stars from eating their young – found mechanisms that prevent eating up star's planets
 - <http://www.nature.com/nature/journal/v520/n7545/full/520040a.html>
 - <http://www.nature.com/nature/journal/v520/n7545/full/nature14277.html>

Science – April 3, 2015

- How young stars grow and become focused
 - <http://www.sciencemag.org/content/348/6230/44.summary>
 - Observing the onset of outflow collimation in a massive protostar
 - <http://www.sciencemag.org/content/348/6230/114.short>

Nature – April 9, 2015

- Prebiotic chemistry on the rocks
 - Organic nitriles detected around young star could seed life
 - <http://www.nature.com/nature/journal/v520/n7546/full/520161a.html>
 - <http://www.nature.com/nature/journal/v520/n7546/full/nature14276.html>
- An incredible likeness of being
 - Earth may have been hit by similar planet to form moon and current Earth
 - <http://www.nature.com/nature/journal/v520/n7546/full/520169a.html>
 - <http://www.nature.com/nature/journal/v520/n7546/full/nature14333.html>
- Saturn's fast spin determined from its gravitational field and oblateness
 - <http://www.nature.com/nature/journal/v520/n7546/full/nature14278.html>

Science – April 10, 2015

- Strong water isotopic anomalies in the martian atmosphere: Probing current and ancient reservoirs
 - 4.5 billion years ago Mars may have had a water layer 137 meters deep
 - <http://www.sciencemag.org/content/348/6231/218.abstract>

Nature – April 16, 2015

- Neutrinos from a galaxy far away
 - Petaelectron volt energy neutrinos may be from blazars (some very energetic galaxies)
 - <http://www.nature.com/nature/journal/v520/n7547/full/520266b.html>
- Biography of Hubble space telescope (25 years)
 - <http://www.nature.com/news/biography-of-a-space-telescope-voices-of-hubble-1.17310>
 - <http://www.nature.com/news/astronomy-hubble-s-legacy-1.17302>
- A new recipe for Earth formation, U, Nd ratios...
 - <http://www.nature.com/nature/journal/v520/n7547/full/520299a.html>
 - <http://www.nature.com/nature/journal/v520/n7547/full/nature14350.html>
- Nuclear ashes and outflow in the eruptive star Nova Vul 1670
 - <http://www.nature.com/nature/journal/v520/n7547/full/nature14257.html>