18th, two days before equinox, and well after predicted maximum which was about the time of new moon earlier in March. Having left Pisces, will be near M31, M110 galaxies in Andromeda April 2-5, then moves toward Cassiopeia later in the month.

Lyrid meteor shower peak is April 21/22.

Omega Centauri & Centaurus A still high enough to view at Point Pelee, real challenge to find.

Meeting adjourned at 9:45 p.m.

Reported by Matt McCall, RASC Windsor Centre Secretary.



Top: Saturn on February 25, 2013 and April 12, 2012 by Brian Thomas, Bottom Left: Jupiter by Scott Stuckless and Bottom Right: Jupiter and Io by Brian Thomas.



Flyer

Next Meeting

Tuesday, May 21, 2013 7:30 p.m. at Ojibway Park Nature Centre

5200 Matchette Road

Speaker: Dr. Bill Baylis

Topic: "Novae and Supernovae"

Upcoming Events

Lyrid Meteor Shower: Peaks in the predawn hours of April 22.

Earth Day 2013: Once again the RASC Windsor Centre will be celebrating Astronomy Day at the annual Earth Day event on Sunday April 28 from 10:00 a.m. - 3:00 p.m. at Malden Park (4200 Malden Road). <u>http://www.facebook.com/EarthDayWindsorEssex</u>.

Science Rendezvous: Will be held on Saturday May 11, 2013 from 10:00 a.m. - 4:00 p.m. at the University of Windsor CAW Commons. Visit <u>http://www.uwindsor.ca/sciencesociety/science-</u><u>rendezvous</u> for more information.

Open House Night at Hallam: The next open house night at Hallam is on Saturday May 18 at 9:00 p.m..

Monthly Meeting Minutes March 19, 2013

The Royal Astronomical Society of Canada - Windsor Centre, Ojibway Park Nature Centre.

Windsor Centre **President, Rick Marion** chaired the Meeting. Rick called the Meeting to order at 7:40 p.m. and welcomed members and guests to the Ojibway Nature Centre.

Motion to accept the Minutes of the February 19, 2013 meeting moved by Steve Mastellotto, seconded by Paul Pratt. **MOTION CARRIED**.

<u>Main Speaker</u>

Rick introduced the main speaker for the meeting, **Juliana Grigorescu** and her topic "*Keeping Up With The Universe*". Juliana began the evening's talk by explaining how astronomers have to learn how to keep up and understand the baffling torrent of new data from observatories & spacecraft missions, adding that it's not easy, but we can try.

We can see only about 6,000 stars throughout the world with the naked eye, but there are roughly 300 billion stars in the Milky Way galaxy, and over 300 billion known galaxies in the Universe. There is a star catalogue named Tycho -2, listing 2,539,913 stars. Hipparchus catalogued a million of the brightest stars down to about mag. 11. USNO–A1.0 once held the record for world's largest star catalogue with nearly 500 million stars, then updated by USNO-A2.0.

The Kepler space observatory was discussed, with particular mention of the smallest exoplanet yet found around a star, which is actually similar to our own Sun. The planet, Kepler-37b, is located in a system about 210 light years from Earth in the constellation Lyra. A slide showing the Kepler telescope's field of view displayed a very small area of the sky around Cygnus.

Turning to planetary missions; since its launch in 1997, Cassini has traveled more than 3.85 billion miles, sending back 450GB of data containing more than 300,000 images of Saturn. Messenger's one-year primary mission around Mercury ended March 17, 2012, with the extended mission lasting until March 2013.

Only 630 comets have been officially catalogued at the present time. Kuiper Belt has over 30,000 comets bigger than 100 km, with possibly millions undetected within the Solar System. The IRAS asteroid and comet survey is the largest, most uniform and least biased survey ever conducted of those objects. More than 1,100 Open Star Clusters have been found in our galaxy, with over 150 currently known globular clusters. The Andromeda Galaxy may have as many as 500 globular clusters, and some giant elliptical galaxies such as M87, have at least 13,000 globulars.

Juliana continued by mentioning the concept of Cyber Astronomy: In 2000, a terabyte of data was collected from the Macho sky survey, which NASA's National Space Science Data Center could not store in its information banks. This was equivalent to the space administration's 45 years of activity to that time, or 15,000 experiments.

Galaxy Zoo was a project started in 2007, allowing volunteers to classify images of galaxies from SLOAN Digital Sky Survey on their home computers. Galaxy Zoo 2 launched two years later, collecting 60 million classifications from tens of thousands of users in 14 months, and afterwards the Galaxy Zoo project morphed into the larger Zooniverse, which oversees over 380,000 volunteers engaged in a variety of astronomical endeavors. Later she spoke of Virtual Astronomical Observatory; a worldwide effort aimed to link data/ services, allowing astronomers to assemble info from large # of telescopes.

After speaking of the CoSADIE project aimed at organizing a data centre forum, and details on the first 'Astroinformatics' conference, she ended the PowerPoint by showing a letter from George Djorgovski at Caltech announcing a conference on Cyber Infrastructure.

Rick thanked Juliana for her excellent presentation and announced a break.

Break and Fifty-Fifty Draw: Tom Bondy won.

Announcements

- Hallam Observatory Open House is April 13, at 8:00 p.m.
- Next Point Pelee Dark Sky Night is April 7

Director of Observing Report, Matt McCall: After displaying images of **Comet PanSTARRS** taken by Windsor Centre members and around the globe, an enlarged slide of the Hallam Clear Sky Clock showing weather conditions for the following days was shown. Demonstrations of how our group reads and uses the hour-by-hour cloud cover forecast map were made by showing cloud movements over the county.

A photo comparison was made between two images of **Saturn** taken by Brian Thomas over the course of a year, showing the change in ring plane tilt. The planet now rises before midnight this month, brightening as it nears Earth.

Leo is well placed in the sky – look for the **Coma Star Cluster** in the constellation.

Comet PanSTARRS rather unexpectedly reached peak brightness on March