

SKYNEWS



Iris Nebula by Dan Posey

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NEXT MEETING

Wednesday June 10th 7:30pm
A104 Bob Wright Bldg,
University of Victoria
3800 Finnerty Rd

www.victoria.rasc.ca

On the Cover

Iris Nebula (NGC 7023)

by Dan Posey

This is 1h50m of ten minute exposures of the Iris Nebula captured with a QSI583c through a Televue 127is refractor. The region is quite interesting for a variety of reasons, but perhaps the most striking is the wide dynamic range between details in the core of the reflection nebula, and the surrounding dust features. The blue core of the nebula is formed by reflections from the central star (which is of course also blue). The region is about six light years across.

I stacked and processed the image in Pixinsight, and this is a fairly cropped image, as the original has a much larger field of view. I tried to tone down my previous attempt at this to maintain smoother transitions between the various features, and avoid noise. Unfortunately two hours just isn't long enough to really provide the depth on this given our semi-light polluted location.

May Speaker

Dr. Lewis Knee, Radio Astronomy Program Programme, Millimetre Technology Group, NRC Herzberg.

“ALMA, low mass star formation, and the SOLA project”

Abstract: ALMA, the Atacama Large Millimetre/submillimetre Array, has begun science operations after more than a decade of development and construction. Although the observatory has not yet reached its full capability, it is already making important new discoveries. In the area of low mass star formation, ALMA offers very high angular resolution and high sensitivity observations of nearby molecular clouds, the most well-studied of which are in the northern hemisphere. However, it is for studies of the less well-known clouds of the southern sky that ALMA will excel.

One of these molecular cloud complexes lies in the Lupus constellation, and an international consortium of ALMA scientists have begun an effort, the SOLA program, to probe the star formation activity in this region. It turns out that the clouds in Lupus and its star formation has some unique characteristics that make of of great interest for studies of star formation in different environments, particularly for the formation of very low mass stars and brown dwarfs.

Bio: Lewis Knee is a radio astronomer at NRC Herzberg in Victoria. He received his PhD in Radio and Space Science at the Chalmers University of Technology in Sweden in 1991. Since then he has worked in radio astronomy observatories in Europe, Canada, and Chile, most recently six years at ALMA in the Atacama Desert. His main scientific interests are in spectroscopy, star formation, molecular clouds, and the interstellar medium of our Galaxy.

Presidents Report

by Sherry Buttner

Way to go, Victoria Centre! Astronomy Day on April 25th was a great success once again, thanks to the hard work of the organizers and volunteers. We entertained 800 visitors at the Royal BC Museum during the day, and another 177 at the DAO later that evening. That makes a total of 5416 “Galileo Moments”, or individual guests we have informed and entertained over 42 separate events since September 1st. We’re pretty popular!

Our Saturday evening Summer Star Parties at the Dominion Astrophysical Observatory have begun again for the second year, with the support of the DAO/NRC and a great many RASC, FDAO, and UVic volunteers. This year, we have the Centre of the Universe building open as well, with its exhibits, and we even have the planetarium open. The May 2nd evening was a little slow, but I expect things to pick up, as we

get the word out. You can find out more about these great public events on our main page at: www.victoria.rasc.ca. You can help spread the word by telling your friends, co-workers, and so on, and by printing out our poster and putting it up in public places: <http://victoria.rasc.ca/media/2015-ObsHillStarParties.pdf>

I'd like to mention the Friends of the Dominion Astrophysical Observatory (FDAO); a newly-formed partner group to RASC-Victoria, who are working on a long-term plan to keep the DAO open for summer public visits. Their progress will be available at: www.observatoryhill.org. And, don't forget to check our calendar for upcoming RASC events such as observing on the UVic telescope, and Bruce's popular Cattle Point sessions.

Clear skies,



Fairfield Community Centre

1330 Fairfield Rd. Victoria,

7:30pm - 11pm

Contact: Chris Purse for further details

vp2@victoria.rasc.ca

New comers are especially encouraged.



Email Lists

Observer / CU Volunteers / Members

Contact Joe Carr to subscribe

web@victoria.rasc.ca



New Observers Group

Hosted by Sid Sidhu - 1642 Davies Road, Highlands. Call 250.391-0540 for information and directions.

Astronomy Day at the Royal British Columbia Museum



Visit <http://rascvic.zenfolio.com/astroday2015> to see the full album

RASC Victoria Centre at the 2015 Vancouver Island Regional Science Fair



If you have never been to a regional science fair then put next April on your calendar at UVIC. What a treat it is to see so many budding young scientists and talk to students from grades 4 to 12 who have worked so hard to put together their projects and experiments. This year we had quite a few students who ventured into astronomy, space or related sciences for their topics and the RASC Victoria Centre gave away 5 prizes to a total of 8 students.

Our top prize was given to **Janet Dawson** in Grade 8 from Gordon Head Middle School for her outstanding analysis on sunsets. She observed and recorded sunset locations and times from the top of Mt Doug for over 13 months. She is one of 5 students representing Vancouver Island at the Canada Wide Science Fair being held this week (May 11-16) in Fredericton, New Brunswick. We wish her the best of luck. Her prize was a one year Junior Membership in the RASC, an invitation to speak to one of our RASC general meetings, and a copy of Nightwatch by Terence Dickinson.



Two second prizes were given to **Astrid Neilson-Miller** and **Amelia Hogg**, in Grade 6 and 7, respectively, at Central Middle School. Astrid's project was on Black Holes and Amelia studied the phases of the moon. Each of these students received a one year subscription to Skyways magazine.

For Honorable Mentions, **Miriam Heggie & Olivia Stajduhar**, in Grade 4 at Frank Hobbs Elementary School, won for their work on robots and a team from George Bonner Elementary school, **Scott DeGreef, Nolan Philip, and Cohen Clafor** won for their experiments on rockets. These students will have a school visit and presentations given in their classrooms.

Thanks to David Lee, Sherry Buttnor, and Dorothy Paul who were judges this year. Next year, please consider spending part of a day being one of the regular or specialty judges. It is challenging, invigorating and fun for everyone.

Here are some pictures from the Awards Ceremony.

Lauri Roche

RASC Victoria Centre Council 2014 / 2015

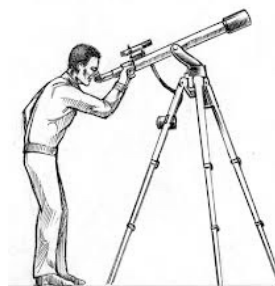
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NRC Liaison	Dr. James Hesser	
NRC Liaison	James di Francesco	
UVic Liaison	Alex Schmid	
Member at Large	David Lee	

Online Resources

Magazines

[SkyNews](#) Our National RASC Newsletter
[Sky & Telescope](#) Magazine
[Astronomy](#) Magazine
[Astronomy Now](#) Astronomy in the UK
[Amateur Astronomy](#) Magazine
[Astrophotography](#) Magazine

Borrowing Telescopes



The centre has telescopes for new and seasoned observers that members can use. Contact Sid Sidhu from the email list above.

The star cluster M41 has a nice variety of star colors.

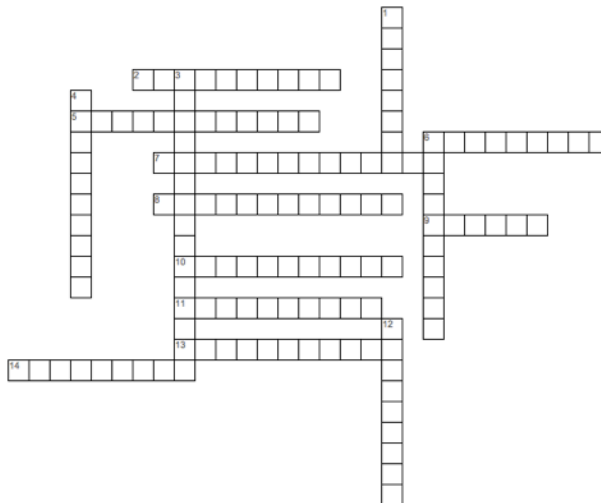
By John McDonald

2015-04-07 in backyard.
 Victoria BC Conditions - clear
 and calm Equipment - WO
 105mm refractor operating at
 f/7 with Canon T3i (modified)
 on HEQ5 mount. Exposure -
 20- 30sec at ISO 3200 with
 10 darks to match.
 Processing in Images Plus
 and Photoshop. To help
 reduce atmospheric refraction
 effects the colors were
 separated, aligned and
 recombined.



An Astronomy related Crossword for you to work on. Answers come next month if needed.

The Life Cycle of a Star



Across

- 2 One of the final stages of a high mass star as a result of no more fuel to burn
- 5 Will become a Neutron Star or a Black Hole; Shortest Lifetime (about 10 million years)
- 6 The result of a supernova if the core survives with a very high mass (about 10 times the sun's mass)
- 7 Will become a White Dwarf; Median Lifetime (about 10 billion years); e.g. The Sun
- 8 The main and longest phase of a stars life
- 9 A large cloud of gas and dust
- 10 The result of a supernova if the core survives with a high mass
- 11 The result of a cooling white dwarf
- 13 Will become a White Dwarf; Longest Lifetime (about 200 billion years)
- 14 A giant explosion that is the result of a supergiant collapsing upon itself

Down

- 1 One of the final stages of a low or median mass star as a result of no more fuel to burn
- 3 One of the results at the end of a low or median mass star's lifetime (Gaseous)
- 4 One of the results at the end of a low or median mass star's lifetime (Core Remains)
- 6 Stars that have too low a mass to start nuclear fusion
- 12 A contracting cloud of gas and dust with enough mass to form a star