

skynews



schedule of events

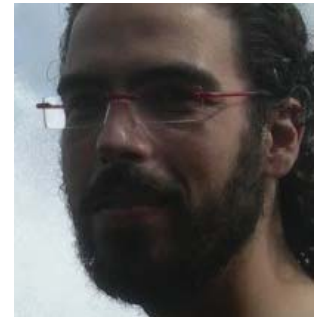
The Bright, Turbulent and Short Life of the Most Massive Stars

Dr. Andre-Nicolas Chene

March 10th, 7:30 PM, Elliott Lecture Theatre, Rm 061, UVic

In spite of their rarity, the most massive stars dominate the luminosity and the dynamic of star-forming galaxies. They contribute large amounts of energy, momentum and matter to the ecology, making them crucial constituent of the universe. I will describe the stages of the life of the most massive stars, from the Main Sequence, i.e. just after their birth, to the Wolf-Rayet stage, i.e. just before their death in supernova. I will also present the theoretical and observational efforts deployed in the last decade and the biggest challenges for the next one.

Bio: I have completed a PhD in Astrophysics at the Universite de Montreal under the supervision of Nicole St-Louis. My thesis about the observational determination of the rotation rate of Wolf-Rayet stars. In November 2007, I moved to Victoria and I started a postdoctoral fellowship with the Canadian Gemini Office at the Herzberg Institute of Astrophysics. I am currently looking for a second postdoctoral position.



March 3-16, 2010 - **GLOBE at Night**

An annual 2-week campaign where people all over the world record the brightness of their night sky by matching its appearance toward the constellation Orion with star maps of progressively fainter stars. They submit their measurements on-line and a few weeks later, organizers release a map of lightpollution levels worldwide. For more information visit <http://www.globeatnight.org/>

March 12-13, 2010 – **Messier Marathon** - Victoria Centre Observatory (VCO) and environs on Observatory Hill. Be sure to sign up for this, our second annual event! Please note: all participants must be members of RASC. For more information see <http://victoria.rasc.ca/events/MessierMarathon/Default.htm>

April 14th, 7:30 PM, Elliott Lecture Theatre, Rm 061, UVic
Lauren MacArthur, HIA - Post Doctorate with Laura Ferrarese: Title to be announced

May 12, 7:30 PM, Elliott Lecture Theatre, Rm 061, UVic
Scott Schnee, HIA- Plaskett Fellow: New Star Formation

on the cover

Horsehead with Ha combined with Color

by Guy Walton

February 17th, 2010

This image was created using my Ha image of February 17, 2010 as a luminance layer and my color image of January 20, 2008 for the RGB layers. I used ImagesPlus 3.50a to align, scale rotate, split LRGB and combine the Luminance (Ha) and RGB channels. Photoshop and Noise Ninja were used to finish the image.

Date: February 17, 2010

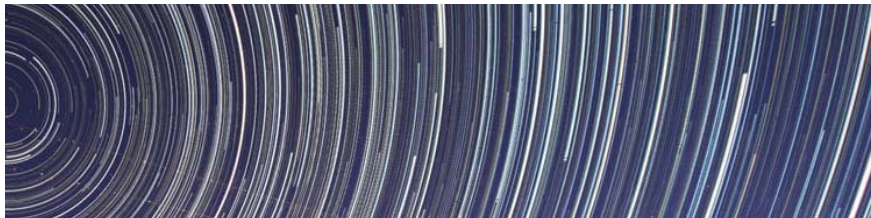
Location: VCO Observatory, Victoria, BC.

Equipment: Televue NP127is Refractor mounted on a Paramount ME, autoguided with an SSAG camera and PHD.

Imaging Camera: Orion SSSPro v1 with 2" filter wheel and an Astronomik 2", 13nm Hydrogen Alpha filter.

Exposures: Ha - 6 X 600sec. Darks - 5 X 600 sec. Bias 25 X .002 sec.

Software: Camera Control: MaximDLE, Processing: Images Plus 3.50a and Photoshop.



Star Trails by John McDonald

contact us on-line

Web Site www.victoria.rasc.ca
New Members newmembers@victoria.rasc.ca
General Inquiries info@victoria.rasc.ca



Reach for the
STARS

A hands-on introduction to stargazing - telescopes provided

Wednesdays, 7 to 9 pm
March 24, 31, April 7

In this three evening course, we'll learn some simple techniques for making sense of the stars and learn what the night sky tells us about our place in the universe. Join us as we learn how to use a telescope, navigate the constellations and find the hidden gems among the stars.

\$60 for sanctuary members
\$80 for non-members

Call 250.479.0211 to register



Swan Lake Christmas Hill Nature Sanctuary, 3873 Swan Lake Rd
Victoria, BC V8X 3W1 250.479.0211 www.swanlake.bc.ca

Messier Marathon 2010

Victoria Centre's Second Annual Messier Marathon will be held at the Victoria Centre Observatory (VCO), and its environs, on West Saanich Road, March 12-13, 2010. Come one, come all, but keep in mind that because of our License to Use Land Agreement with the National Research Council (NRC), all participants must be members of RASC, and participating members must be enrolled on the Active Observers List. This is an all night session. Coffee and donuts will be served.

New members are welcome to attend this "baptism by icy air."

March 12-13, 2010 is the predicted best weekend of the year for a marathon. If the weather doesn't cooperate on that date, we will have another try on March 19-20, 2010.

Notices for practice sessions will be scheduled ahead of time (weather permitting), and will be posted to the Active Observers email list.

Because no single location on Observatory Hill is optimum in terms of being able to see in all directions, we contemplate at least one move during the night. We will start at the site of our VCO observatory, from where we will have a good view of the western horizon and M74 and M77 as they disappear from view, along with the Sun. From the VCO site, we ought to be able to observe for another hour (after all, there are M31, M33, M32, and M110) before moving our gear to the lower parking lot, which affords a grand view to the North (you can see Grouse Mountain in Vancouver), East (you can see the refinery in Anacortes) and South (Port Angeles).

To satisfy our agreement with the NRC (and to buy enough donuts), we will need to know, in advance, who is coming. Sign up now by notifying Nelson Walker (250) 477-4820 Contact Info. Nelson will also ensure you are enrolled on the Active Observers List.

There is lots of information on the Internet about running a Messier Marathon, to say nothing of the information found in most basic observing handbooks. We have looked at a lot of it, and rather than duplicating the fine work done by other observers, we are just going to borrow from

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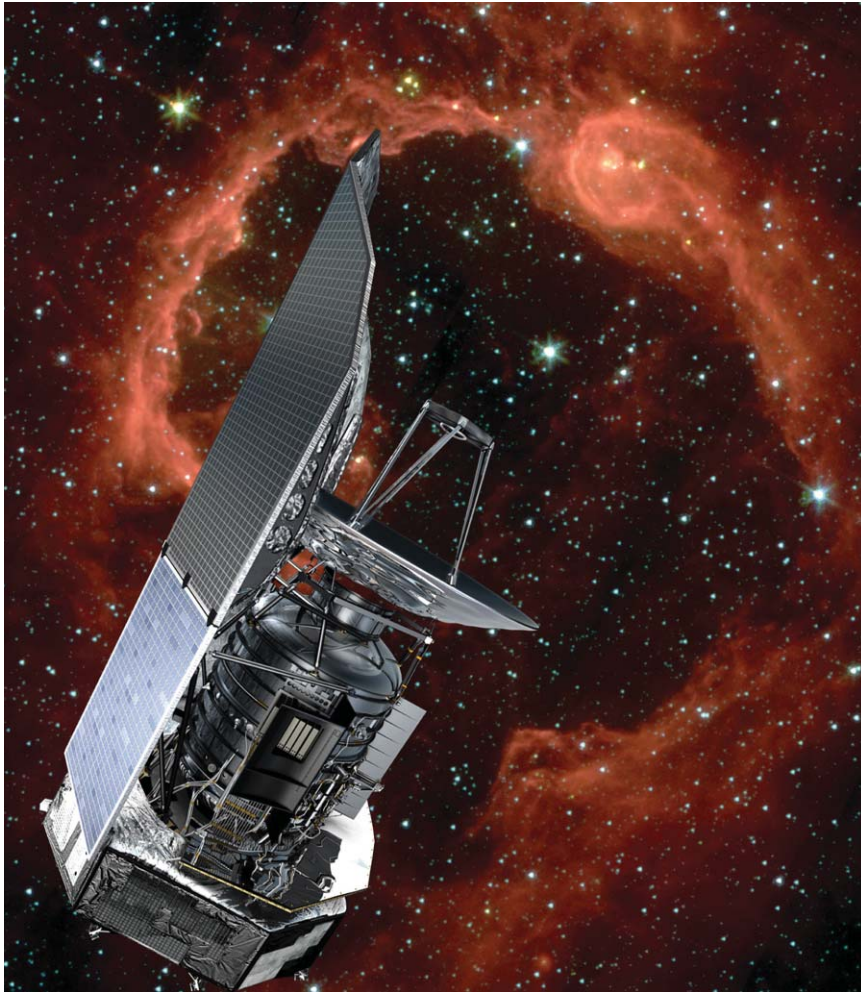
Flipping the Lights on Cosmic Darkness

Exploring the universe is a bit like groping around a dark room. Aside from the occasional pinprick of starlight, most objects lurk in pitch darkness. But with the recent launch of the largest-ever infrared space telescope, it's like someone walked into the room and flipped on the lights. Suddenly, those dark spaces between stars don't appear quite so empty. Reflected in the Herschel Space Observatory's 3.5-meter primary mirror, astronomers can now see colder, darker celestial objects than ever before—from the faint outer arms of distant galaxies to the stealthy "dark asteroids" of our own solar system. Many celestial objects are too cold to emit visible light, but they do shine at much longer infrared wavelengths. And Herschel can observe much longer infrared wavelengths than any space telescope before (up to 672 microns). Herschel also has 16 times the collecting area, and hence 16 times better resolution, than previous infrared space telescopes. That lets it resolve details with unprecedented clarity. Together, these abilities open a new window onto the universe.

"The sky looks much more crowded when you look in infrared wavelengths," says George Helou, director of the NASA Herschel Science Center at Caltech. "We can't observe the infrared universe from the ground because our atmosphere blocks infrared light, and emits infrared itself. Once you get above the atmosphere, all of this goes away and suddenly you can look without obstruction." Herschel launched in May from the Guiana Space Centre in French Guiana aboard a European Space Agency Ariane 5 rocket. Since then, it has expanded the number of distant galaxies observed at far infrared wavelengths from a few hundred to more than 28,000. And with the instrument testing and system check-out phases finally completed, the discoveries are only now beginning. Beyond simply imaging these dark objects, Herschel can identify the presence of chemicals such as carbon monoxide and water based on their spectral fingerprints. "We will be able to decipher the chemistry of what's going on during the beginnings of star formation, in the discs of dust and gas that form planets, and in the lingering aftermath of stellar explosions," Helou says.

And those are just the expected things. Who knows what unexpected discoveries may come from "flipping on the lights?" Helou says "we can't wait to find out."

Herschel is a European Space Agency mission, with science instruments



provided by a consortium of European-led institutes and with important participation by NASA. See the ESA Herschel site at sci.esa.int/science-e/www/area/index.cfm?fareaid=16. Also, see the NASA sites at herschel.jpl.nasa.gov, www.herschel.caltech.edu, and www.nasa.gov/mission_pages/herschel. Kids can learn about infrared light by browsing through the Infrared Photo Album at The Space Place, spaceplace.nasa.gov/en/kids/sirtf1/sirtf_action.shtml.

This article was provided courtesy of the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Presidents Message

March 2010

I have been looking over my log books recently – I am on book 4 now with most of the entries reflecting my learning curve since joining Victoria Centre. Like most people who get into amateur astronomy I needed a lot of help to get started and am grateful to many members of the Centre for pointing me in good directions.



The friendly and helpful spirit is still evident so if you are new to the Centre don't hesitate to ask for help. There are no dumb questions and all of us have been through the learning curve. Astronomy Café is a good place to ask questions and help is always available.

This month if the skies allow Nelson Walker will lead us in another Messier Marathon event. Don't miss it what ever your skill set is. It is challenging for the experienced to get all the objects in one night but anyone can with a bit of help can get quite a few and you will learn a great deal about the sky by participating. See you there.

Finally, a reminder that light pollution abatement is our focus this year and you are welcome to join the LPA group if you are interested in helping. Just send me a message indicating your area of interest.

John

observers group

RASC Victoria Centre and the NRC have signed a License to Use Land Agreement which gives members of Victoria Centre expanded access to NRC property on Observatory Hill.

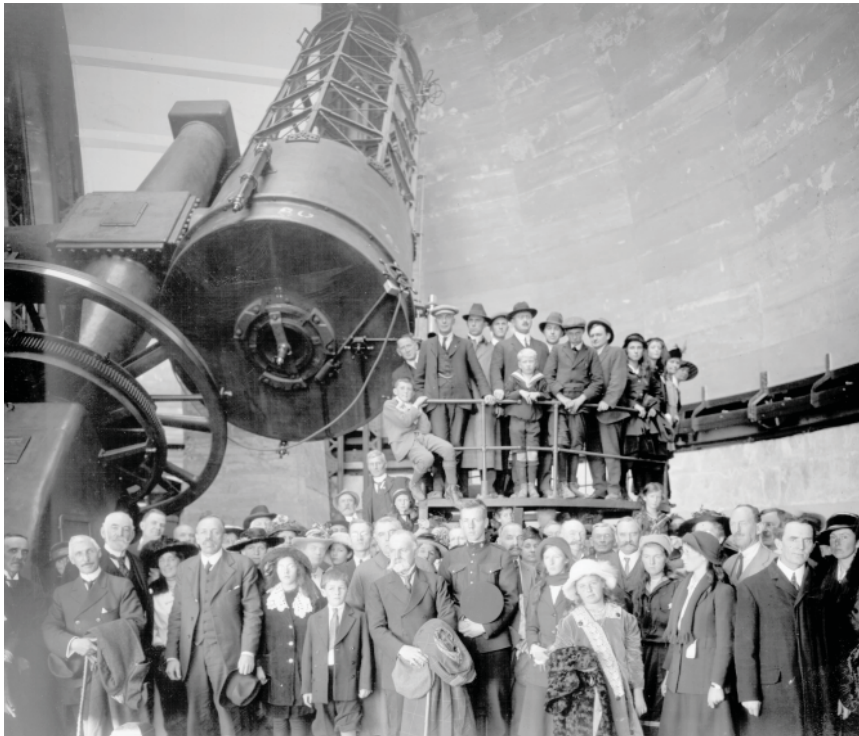
If you are a member in good standing of Victoria Centre RASC, consider yourself an "active observer", and wish to take advantage of this opportunity, please send an email to the 1st or 2nd Vice President. More information on this program see: <http://victoria.rasc.ca>

HIGHLIGHTS FROM OUR EARLY YEARS

By Bill Almond

1917

In 1917 the First World War was taking its toll on the membership. Many were on active service and maintained on the roll as honorary members. With the absence of the President, Vice-President and Secretary meeting attendance was impossible for eight months of the year. In the following year the great worldwide influenza epidemic swept through Victoria and decimated meeting attendance for many months. On January 8 the Geographic Board of Canada changed the official name of Little Saanich Mountain to Observatory Hill, following a suggestion by Dr. Plaskett, and on April 29 Dr. Plaskett announced that the mirror for the 72-in. telescope had been hoisted safely to the observatory's observing floor. After its installation the Lieut-Governor of British Columbia,



After the installation of the 72-in. mirror the Lieut-Governor of British Columbia, Sir Frank Barnard (bottom left, with coat over his arm, next to Dr. Plaskett), opened the observatory officially on June 4, 1918. A great crowd of visitors, among them many Centre members, attended this notable occasion.

Sir Frank Barnard, opened the observatory officially on June 4, 1918. A great crowd of visitors, among them many Centre members, attended this notable occasion at the opening of the largest telescope in the world at that time. Newspapers worldwide carried notices of the event, drawing much favourable publicity to Greater Victoria.

1922

1922 saw a notable visit by Prof. C. A. Chant, an RASC board member, who was directing an expedition to Australia to observe a solar eclipse on September 21. A luncheon in his honor was held at the Empress Hotel, presided over by Centre President, W. E. Harper, during which Prof. Chant gave a talk on the chief object of the expedition, namely, to obtain evidence for or against the Einstein theory of relativity. Dr. R. K. Young, representing the DAO, accompanied the Chant party to Australia and on the return of the expedition, was entrusted by Dr. Chant with the measurement and reduction of the Einstein plates. Images of star shift were found to be approximately the amount predicted by Einstein. At the Annual Meeting on December 15, Dr. Young gave an account of the work of the Canadian Eclipse Expedition organized by Dr. Chant.

1927

In 1927 a speaker of picturesque interest addressed the October meeting. Chief Shelton of the Snohomish Tribe appeared in native dress and spoke to a joint gathering of the RASC, the BC Historical Association and the BC Natural History Society on "Legends and Myths of the Pacific Coast Indians." The Chief's lecture was not concerned with the stars but centered around the totem pole, which, he stated, was the basis of all Indian education on the Pacific coast.

address change? information incorrect

Contact the National Office

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Fax - 416.924.2911

Email - nationaloffice@rasc.ca

Post - RASC, 203 – 4920 Dundas St W, Toronto, ON M9A 1B7

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them shamelessly. We hope that our members who are conducting their marathons elsewhere will use whatever information we have gathered that they find helpful.

We can tell you this

- 1 - Dress warmly, you will freeze to death without a hat!
- 2 - To increase your chances of finding objects, you must plan, must plan, and must plan. See the log sheets and finder charts mentioned below.
- 3 - We will have enough trouble with light as it is, so dark adaptation is crucial insofar as locating at least half of the Messier objects. That means we will have to be careful with our lights. Even a bright red light can destroy dark adaptation.

RASC victoria council

*this month
monday nights*

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president@victoria.rasc.ca

First Vice President

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Second Vice President

Sherry Buttner - vp2@victoria.rasc.ca

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Membership Coordinator

Dirk Yzenbrandt -
membership@victoria.rasc.ca

Members at Large

Bill Almond, Sandy Barta, Dave Bennett, Jim Hesser, David Lee, Steve Pacholk, Colin Scarfe,

Astronomy Cafe

Fairfield Community Centre,
1330 Fairfield, Victoria
7:30-11pm

Call Geoff at 250.592-2264 for directions and information. New comers are especially welcome. Come and enjoy!

**ASTRONOMY
CAFÉ**



second wednesday of the month

Monthly Meeting

7:30 PM, Elliott Lecture Theatre,
Rm 061, UVic.

as sky and interest dictate

New Observers Group

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

**Observer/CU Volunteers/
Members email lists**

Contact Joe Carr to subscribe to these email lists for important, timely, member-related news.

by email

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