



# The Royal Astronomical Society of Canada NATIONAL NEWSLETTER

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## PROFESSOR LISA RANDALL ELECTED AS RASC HONORARY MEMBER

The Royal Astronomical Society of Canada is pleased to welcome its newest honorary member, Dr. Lisa Randall. Born in New York City, Randall attended Stuyvesant High School, where she won the 1980 Westinghouse Science Talent Search. She went on to study at Harvard University, earning a BA in 1983 and a PhD in 1987. She has since acquired numerous honorary degrees. After appointments at the Massachusetts Institute of Technology and Princeton University, Randall returned to Harvard, where she was appointed the Frank B. Baird, Jr., Professor of Science. Her research involves connections between high-energy physics and cosmology, with an emphasis on gravity, dark matter and the possible role of extra dimensions in our universe. Included among her many honours are:

- Alfred P. Sloan Foundation Research Fellowship;
- National Science Foundation Young Investigator Award;
- Department of Energy Outstanding Junior Investigator Award;
- Premio Caterina Tomassoni e Felice Pietro Chisesi Award (University of Rome, La Sapienza);
- Klopsteg Memorial Lecture Award (American Association of Physics Teachers); and
- Julius Edgar Lilienfeld Prize (American Physical Society), for her research and for outreach.

Randall is well known to the public through her lectures, her many radio and television appearances and her writing. She has received recognition as an influential scientist from *Seed* magazine, *Newsweek*, *Time* and *Esquire*. Randall's books for a popular audience include *Warped Passages* (2005), *Knocking on Heaven's Door* (2011), *Higgs Discovery* (2012) and *Dark Matter and the Dinosaurs* (2015).

The RASC Board of Directors confers a lifetime honorary membership in recognition of a person's noteworthy contributions to astronomy. Honorary members receive the publications of the Society and may attend all of the Society's meetings.

The RASC has only 15 honorary members at any one time. The RASC Board of Directors and Nominating Committee elected Randall to fill the vacancy created in the ranks of RASC honorary members when Dr. Stephen Hawking passed away last year.

For more on RASC honorary members, see [www.rasc.ca/honorary-members](http://www.rasc.ca/honorary-members).

— Chris Gainor  
President, RASC



Lisa Randall

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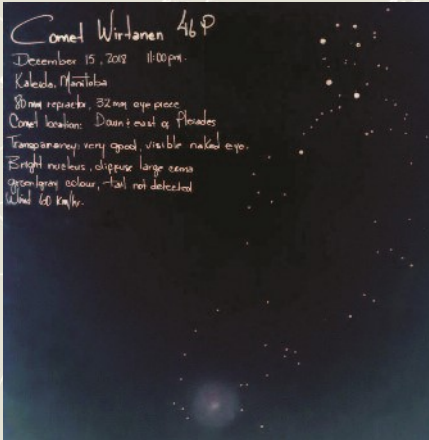
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Executive Director, RASC

### CONTACT US

We invite all Centres to contribute articles about their latest activities. Have you had any public star parties, award ceremonies, special events or observatory activities? Photos are welcome. Please send articles and pictures to [newsletter@rasc.ca](mailto:newsletter@rasc.ca).



Comet Wirtanen 46P

December 15, 2018 11:00pm  
 Kaledo, Manitoba  
 80mm refractor, 32mm eye piece  
 Comet location: Dawn's east of Pleiades  
 Transparency: very good, visible naked eye.  
 Eriqht nucleus, diffuse large coma  
 greenish colour, tail not detected  
 Wind 40 kph.



## RASC 150 IMAGINING THE SKIES CONTEST WINNERS

We are pleased to announce the winners of Imagining the Skies, the astrophotography, sketching and creative arts contest celebrating the RASC's 150th year. Our goal was to encourage amateur astronomers—and anyone captivated by views of otherworldly vistas—to share what they have created from their direct experience of celestial phenomena. This was one of the major programs of RASC 150. The project leads were Lauri Roche and Jim Hesser.

Imagining the Skies was open to novice, intermediate and experienced astrophotographers, astro-sketchers and those working in other creative media. We were gratified by the number, variety and quality of the entries and would like to take this opportunity to thank all the artists and astrophotographers who submitted their work, the audience at large who participated by voting for their favourite pieces and the expert panel of judges. Without them, Imagining the Skies would never have happened.

Winning submissions were selected in two ways, by popular vote through the website and by our experienced panel of judges: Kathleen Houston, a professional artist and longtime sketcher of astronomical phenomena; Robin Kingsburgh, a trained astrophysicist, professional artist and university lecturer; and Murray Paulson, an accomplished planetary observer and astrophotographer.

The winners chosen by public vote are Ryan Fraser (London, Ontario) in the category Astrophotography/Experienced, for *Andromeda M31*; Stephan Hamel (Hanwell, New Brunswick) in the category Astrophotography/Intermediate, for *The Moon Shows Us Its Real Colours*; Josephine Christensen (Toronto) in the category Astrophotography/Novice, for *Eye of the Beholder*; Eileen McGann (Vancouver Island) in the category Creative Works/Experienced, for *Randy's Moon in Uclulet*; Trinley Dorje (Toronto) in the category Creative

Open to novice, intermediate and experienced astrophotographers and artists, our Imagining the Skies Contest brought an amazing variety of artwork, including Janet H. Tulloch's *Twilight of the Gods*, top left; Stephan Hamel's *The Moon Shows Us Its Real Colours*, top right; Sylvia Graca's *In the Neighbourhood*, middle left; Trinley Dorje's *Stellar Jewels*, middle right; and Emile Cormier's sketch *M13, the Hercules Cluster*, above.



Works/Intermediate, for *We Are Stardust 1.0*; and the Vikisnath Family Group (Artash, Arushi, Rati and Vikas; Toronto) in the category Creative Works/Novice, for *Trap-pist-1 Pinball Light and Sound Model: Singing to Survive*.

Those chosen by the panel of judges are Kathy Walker (Kentville, Nova Scotia) in the category Astrophotography/Experienced, for *M13, the Great Hercules Cluster*; Nic Annau (Victoria, British Columbia) in the category Astrophotography/Intermediate, for *Waterfalls*; Adrian Aberdeen (Toronto) in the category Astrophotography/Novice, for *M24 Sagittarius Star Cloud*; Janet H. Tulloch (Burlington, Ontario) in the category Creative Works/Experienced, for *Twilight of the Gods*; Trinley Dorje (Toronto) in the category Creative Works/Intermediate, for *Stellar Jewels*; and Jason Worobec (Saskatoon) in the category Creative Works/Novice, for *A Cool, Cool Full Moon*.

Sylvia Graca (Winnipeg) won the Special Award for Sketching, for *In the Neighbourhood*. In Astrophotography, W. John MacDonald (Victoria, British Columbia) received an Honourable Mention in the Experienced category, for *Sketching at the 25*; Tim Yaworski (Saskatoon) received an Honourable Mention in the Intermediate category, for *Lunar Eclipse Over Borden Bridge*; and Samer Hobeika (Montreal) received an Honourable Mention in the Novice category, for *Had to Stop There for a Photo*. Emile Cormier (Moncton, New Brunswick) received an Honourable Mention in Sketching, for *M13, the Hercules Cluster*.

We congratulate all the winners!

For 150 years, the RASC has been encouraging and enabling people to experience celestial phenomena directly, in the belief that science can enrich our lives. Imagining the Skies continues the legacy of science inspiring art.

The winning submissions, along with all the other entries, can be viewed at [imaginingtheskies.ca](http://imaginingtheskies.ca).

— R.A. Rosenfeld, Jim Hesser  
and Lauri Roche

## CENTRE NEWS

### MISSISSAUGA CENTRE

December 21 marked the 50th anniversary of the Apollo 8 mission—the first spaceflight to take humans to the Moon.

To mark the event, the Mississauga Centre sponsored a special presentation on December 7, 2018, by Apollo historian and author Andrew Chaikin. Chaikin has written several books on spaceflight, including *A Man on the Moon*, which was one of the first major works chronicling the Apollo flights. This book was the basis for the 1998 HBO 12-part miniseries *From the Earth to the Moon*, produced and hosted by Tom Hanks.

In Chaikin's talk, *Stories From Apollo 8*, he described several aspects of the flight, including the decision to send astronauts to the Moon earlier than originally planned. By the summer of 1968, production of the lunar module was behind schedule, so its first flight would have to be delayed. As well, there was CIA intelligence that the Russians were planning to send cosmonauts to the Moon in December. A bold decision was made—send Apollo 8 to the Moon.

A highlight of the talk was a full description of how the iconic Earthrise photo was taken. The first image, which appeared on the cover of the November/December 2018 issue of *SkyNews*, was captured by Bill Anders using black and white film—the film the Apollo astronauts used to shoot lunar features from orbit. Several seconds later, when a colour film magazine was found and attached to the camera, the famous colour Earthrise photos were shot. Apparently, taking these images was never discussed or planned before the flight, and the breathtaking sight was a surprise to the astronauts, who were busy photographing the Moon, their primary target.

— Randy Attwood  
Executive Director, RASC

### HAMILTON CENTRE

The Hamilton Centre has been very active over the past year. Regular observing nights were reinstated as part of the Centre's monthly schedule. Run by board member Roger Hill, these nights allow members of the club and the community to work on their RASC observing certificates. Outreach activities included a variety of events, such as sidewalk astronomy, and some members presented talks at local community centres and institutions. Connecting with curious minds of all ages, our outreach team has done an excellent job.

As wonderful as 2018 was, 2019 promises even more opportunities for outreach and community involvement through the club. The Centre registered three separate events for the International Astronomical Union's 100 Hours of Astronomy in January. Observing nights will continue monthly, with additional nights scheduled sporadically. Armchair astronomy sessions are expected to take place monthly. The Canadian Astrophotography School (CAPS) program is scheduled to take place this May, with a new format and instructor. This will be a major fund-raiser for our Centre. Talks are already being scheduled for the spring, and whispers about sidewalk astronomy echo toward the summer months.

— Abigail Hughes  
Outreach Director, Hamilton Centre

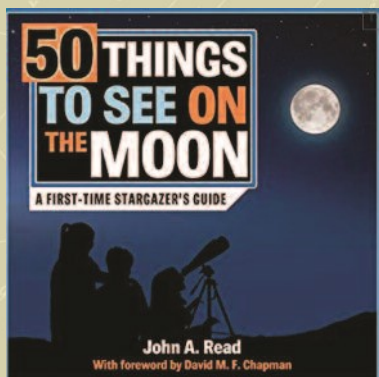
# RASC NEWSLETTER



## OBSERVING NEWS

### NEW MOON BOOK FOR NOVICE OBSERVERS

**H**alifax Centre RASC al John Read, author of the “50 Things” astronomy book series for first-time stargazers, recently released *50 Things to See on the Moon* (Formac Publishing, Halifax). Available in hardcover on bookstore shelves and in hardcover, softcover and Kindle editions on Amazon, the 80-page illustrated book contains a variety of lunar features visible in binoculars and telescopes from your own backyard, plus lots of fascinating facts and tidbits about our nearest neighbour in space. Dave Chapman (RASC *Observer’s Handbook* Emeritus Editor) was technical editor for this book and wrote the foreword.



## 2019 RASC GENERAL ASSEMBLY

**T**he 2019 General Assembly will be held in Toronto at York University from June 13 to 16. The theme is Education, Public Outreach and Citizen Science in Astronomy. It is being held jointly with members of the American Association of Variable Star Observers (AAVSO).

Here are a few of the highlights of this year’s General Assembly:

- Two days of paper sessions by invited speakers and RASC and AAVSO members.
- A half day of workshops for members to discuss various outreach and astronomy activities: Education; Public Outreach; Citizen Science; Light-Pollution Abatement; Member Retention; Running a Centre; and more.
- The Ruth Northcott lecture will be given by **James Hansen**, author of the book *First Man: The Life of Neil A. Armstrong* (2005). It is a biography of the first man to walk on the Moon. A movie based on the book was released in 2018.
- Longtime RASC member David Levy’s autobiography, *A Nightwatchman’s Journey*, will be introduced.



- During the weekend, a program will be offered to members of the public. Families will be invited to attend hands-on astronomy activities and introductory lectures as part of a Father’s Day Weekend Astronomy Adventure.
- Evening observing at York University’s Allan I. Carswell Observatory.
- After the General Assembly, there will be tours to local sites, such as the David Dunlap Observatory.

Recently, two subway stations were opened at the north and south ends of the York University campus, making it accessible from all over the city. This also means that downtown Toronto is a short subway ride from the campus.

Accommodation will be available in student residences on campus and at a hotel off-site on the Toronto subway line.

Look for registration information on the 2019 General Assembly website: <https://rasc.ca/ga2019>

See you in Toronto in June!

— Randy Attwood  
Executive Director, RASC

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