

contributed heavily towards the cost of the telescope and equipment used by Clyde Tombaugh used in discovering Pluto at Flagstaff 75 years ago on February 18th. A reminder to members, Clyde once visited RASC Windsor Centre!

Steve Mastellotto thanked Milica for her well done and well illustrated presentation.

**Coffee Break and 50/50 draw:** The draw was won by Art Rae.

**Main Speaker:** Dr. Pierre Boulos from the Physics Department of the University of Windsor - The 100th anniversary of Albert Einstein's "Miracle Year". Steve introduced Pierre as our new first Vice President and mentioned his annual talks are becoming a tradition. Pierre's talks have been primarily on the history of those who have made major contributions to science.

Pierre used a photo of a very human Einstein riding a bicycle as a backdrop for his power point presentation. Using a variety of photographs neatly layered onto the backdrop Pierre outlined Einstein's remarkable career and many major accomplishments in physics.

Born in 1879, Albert Einstein was fascinated at first by a magnetic compass as a boy and later by everything he could read on science. His education was rapid and thorough as was his work. At age 26 in 1905 he received his doctorate in physics and had produced his paper on "The electrodynamics of moving bodies". This led to our much later common understanding of the equation "Energy equals mass times the square of the speed of light".

By 1915 he had completed his general theory of relativity. It was proven correct in 1919 when a British eclipse of the Sun expedition observed and measured the bending of light as it passed by the mass of the sun. Their measurements confirmed Einstein's predictions and he became as famous as Newton was in his time.

In 1921 he won a Nobel Prize for his theories on the Photoelectric Effect. In 1928 he began his work on the Unified Field Theory. At the height of his fame in 1932 he wisely moved out of Nazi Germany feeling he might be persecuted as a Jew. In 1933 he became a professor at Princeton University in the United States.

In the late thirties he warned President Roosevelt of the genuine possibility an atomic bomb could be built and change the course of history forever. He followed this by joining the Manhattan project to build the first atomic bomb.

He also made a major contribution to the war effort in a very unusual way by producing a hand written copy of his original key work from 1905. It was auctioned for six million dollars in 1944.

A very unusual individual, Einstein had a brain a little different in visible structure but wonderfully different in capability. He was always influential and popular with the public.

After writing his last letter urging all nations to give up nuclear weapons he died of heart failure in 1955.

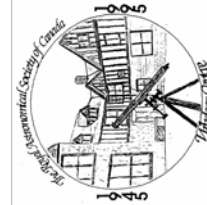
Steve thanked Pierre for his well researched and illustrated presentation.

**David J. Panton,**  
Recording Secretary

**Dr. W. Bayliss' Abstract:** Einstein introduced his cosmological constant to ensure the existence of static solutions to his gravitational field equation. However, about a dozen years later, the expansion of the universe was discovered and the cosmological constant seemed superfluous. It has now been resurrected to explain recent observations of distant supernovae, but its physical origin is not well understood. [This talk complements Dr. Bayliss' free public lecture on 'Einstein's "Biggest Blunder" and the Big Bang' on Thursday, April 14, at 3:30 p.m. in room 109 Memorial Hall at the University of Windsor. The emphasis at the RASC-Windsor meeting will be more on astronomical and cosmological aspects. The talks can be heard either together or independently.]



# AURORA



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## Flyer

### Next Meeting

Tuesday, April 19, 2005  
8:00 p.m.  
at  
Maidstone K of C Hall  
10720 County Road 34  
(Old Talbot Road)

**Speaker:** Dr. W. Bayliss

### Topic:

*The Cosmological Importance of Einstein's  
"Biggest Blunder"*

**Abstract and Additional Information:**  
*See the last page*

### Upcoming Events

**Hallam Observatory Open House:**  
April 16, 2005 8:30 p.m.  
May 14, 2005 9:30 p.m.

**Celestial Events:**  
Mar 26th—Jupiter/Moon Occultation  
Apr 21st—Lyrid Meteor Shower

**Other Events:** World Year of Physics events at the University of Windsor. The events are free and open to the public. Please go to <http://www.uwindsor.ca/physics/wyp2005> for more information and dates.

# General Meeting Minutes

## February 15, 2005

**President, Steve Mastellotto:** Steve asked members to read the minutes from the January meeting. A motion to accept the minutes from the January meeting was made by Pierre Boulos, seconded by Randy Groundwater and carried.

### Reports

**Correspondence Secretary, C. Joady Ulrich:** Joady was unable to attend the meeting.

**Treasurer, Ken Garber:** Ken indicated our bank account currently holds \$7,071 and we have 121 paid up members. Ken has all the latest membership cards available for pickup. The rest will be mailed.

**Librarian, Milica Rakic:** Milica brought the latest Sky and Telescope magazine issues to the meeting. She has also subscribed to both Astronomy and Amateur Astronomy magazine. All are available on loan.

Steve asked members who may have any club materials or publications on loan to return them to Milica so we have all materials at one central location.

**Newsletter Editor, Ken Garber:** The March issue distributed at the meeting was Ken's first as new editor and his first experience working with the editing software. The very credible result testifies to Ken's expertise. Ken asked for member's e-mail addresses so it can be distributed electronically. Only 18 members do not have e-mail and their issues will be mailed. The latest membership list has been e-mailed by Steve Mastellotto.

As Editor, Ken asked for articles, notes, reports etc. from members. He will also undertake to write a "Question and Answer" column to answer astronomy questions from members.

**Public Education, Randy Groundwater:** Poor weather forced cancellation of some group trips to the Hallam Observatory. Randy's astronomy course at the Centre for Learning in Retirement is being given to twelve keen students.

**Public Relations, Peter Bondy:** Peter has just taken on the position and had nothing to report.

**National Council Representative, Tim Bennett:** Tim was on vacation but will be attending the National Council meeting at the end of the month.

**Observatory Director, Peter Bondy:** This new position was created at the February Council meeting after the observatory committee was disbanded having completed their task. Peter has already convened an ad hoc meeting at which the group produced a whole list of ideas for further improvements at the observatory. Motorizing the dome was a big item. Others included a second observatory with a new dome or a rolling roof observatory building large enough to accommodate several telescopes sheltered from the wind. Peter has a project to produce a name plate casting for the observatory with the Hallam name, observatory logo and latitude and longitude.

Being located on rented land has some limitations. Should a move ever become necessary movable assets are an advantage.

Tom Sobocan added a comment regarding 2 inch eyepiece filters he has purchased for trial use at the observatory.

**Membership Chairperson, First Vice President Pierre Boulos:** This new position was created at the February Council meeting. The idea is to make new members welcome and to help retain members year to year by contacting those who have not renewed.

**Director of Observing, Steve Pellarin:** Steve provided a map from [skymaps.com](http://skymaps.com) showing the night sky for March and on the reverse side, listings of all the objects of most interest. Comet Machholz is now circumpolar and can be seen all night. Although it is now fading it is still visible in binoculars. David Williams reported he has seen it on every clear night to date. Comets are very good introductory objects for those new to astronomy. Steve mentioned how often people are surprised to find they are almost stationary in spite of their (usually) long tail.

The SOHO solar observatory spacecraft shot some stunning images of the latest patch of sun spots. Further, via x-ray observation revealed coronal holes where material has been ejected. In turn we should expect a display of Northern Lights in about three days.

Saturn is high in the sky and is close for excellent views of ring and planetary detail as well as some of its moons. Jupiter rises later can be seen best in the early morning hours.

The explanation for Zodiacal light was made clear by Steve. The dust particle in the plane of Earth can be seen about two hours before sunrise from a dark site in the Spring and Fall.

Steve listed a wide variety of objects to search for over the next month, all visible from our area even though some will be a bit of a challenge.

For those with inexpensive webcams, Steve displayed some remarkable photographs taken by amateurs with computer programs capable of stacking and processing images to tease out the very best possible resolution. Ed Grafton in the U.S. has even managed to obtain images of cloud banks on the surface of Uranus and its narrow ring.

Variable stars are also interesting targets for amateurs. Many useful scientific contributions have been made via their dedication to observing and recording brightness as it changes over time. Sometimes it changes in periods as short as hours.

### Business

The Pelee Island Winery "Stargazing" event is all set for March 19th. Steve described the event and how we fit in and how we can benefit. The ticket cost for the entire affair, Winery Tour, wine tasting, goodies and bus trip to the Hallam observatory from the Winery costs \$55. Of that \$20 will be for the benefit of RASC Windsor Centre. Tickets and the information flyer were available at the meeting.

Astronomy Day has been combined with Earth Day at Ojibway Park. Steve noted the date of April 16th is officially Astronomy Day but we will mark it by setting up our usual display at the Earth Day event on April 24th.

**Short Talk:** Milica Rakic – Lowell Observatory. While on vacation to see the Grand Canyon Milica stayed in Flagstaff, Arizona and visited the Percival Lowell observatory. Lowell was a wealthy business man turned astronomer at the end of the 1800's. His interest was primarily in Mars and to this day he is known as the man who theorized there were canals on Mars built by a population living on a planet with a shrinking water supply.

Her numerous photographs showed details of his large Clark refractor telescope mounted in an observatory built from local Ponderosa Pine. Numerous other pieces of well built equipment such as measuring engines and blink comparators of the day were included in her shots. Even his mausoleum was featured, a more substantial monument than his many curious Mars observations.

Even Percival's original observing chair was displayed set up high on an adjustable platform to follow the telescope's eyepiece position. Its function reminded one of a Mike Pataky "Beer Chair" (recently featured in Astronomy magazine).

This writer was not familiar with the Pluto discovery connection to the Lowells. His brother