



Southampton
Astronomical Society
Founded 1924

Newsletter

March 2009

www.southampton-astronomical-society.org.uk

NEXT MEETING Thursday 9th April
Alan Drummond "The Andromeda Galaxy"

Programme of Events

March 26th	Mike Hobbs	Telescope Evening
April 9th	Alan Drummond	"The Andromeda Galaxy"
April 23rd	Ian Gore	
May 14th	Tom Maccarone (Univ of Soton.)	"Stellar collisions and near misses"
May 28th	Gerard O'mara	
June 11th	Dr. Robert Smith (Sussex)	"End in fire: the ultimate fate of the Earth?"
June 25th	Tim Stretton	
July 9th	Talks Given by Members	
July 23rd	Stephen Cole	

Venues for Monthly Meetings

All Meetings start promptly at 7.30 pm.

Club Evenings and Observing Meets:

Maps to venues are available at the Monthly Meetings. Alternatively, please E-mail:

Stephen Cole (gabbs@fatcontroller.org.uk)

for a map.

Meetings on the 2nd Thursday of each month are held at:

Edmund Kell
Unitarian Church Hall,
Bellevue Road,
Southampton,
SO15 2AY.

Parking Arrangements: On-street parking is usually available in Bellevue Road. There is a car park in King's Park Road nearby. From the car park there is pedestrian access to Asylum Road. Please ensure that your car is securely locked.

Please note that our venue is accessible by Disabled Visitors

Contact Details:

President:
Dr. Lilian Hobbs
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Minutes for Meeting - Thurs 12th February

Searching for Spirals. How to look at a million galaxies

[BY KAREN MASTERS](#)

[Karen Masters' background](#)

Karen grew up in the small town of Coleshill in Warwickshire and got interested in astronomy at an early age. Later, Karen went to the United States to continue with her studies in astronomy. She told us of her observational adventures along the way.

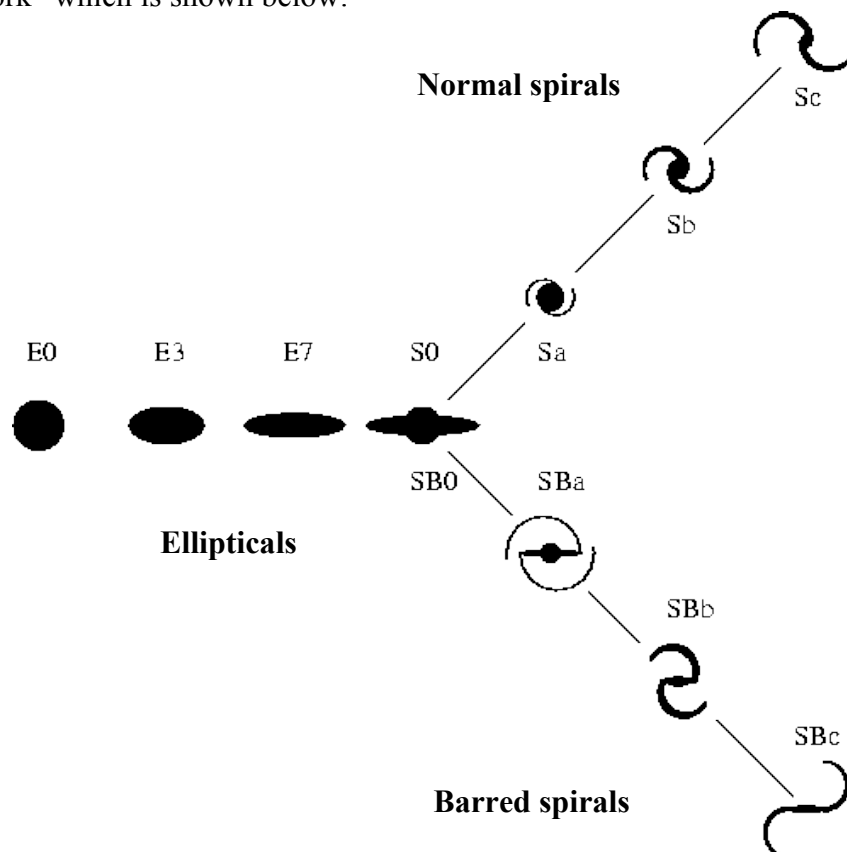
[Galaxies](#)

[MILKY WAY GALAXY](#)

Karen told us about our galaxy, the Milky Way Galaxy, and where our Solar System is located. She described the spiral arms as “densities” and showed that these spiral arms are areas where concentration of stars are greater than the areas between the spiral arms.

[GALAXY TYPES](#)

Karen told us of four main types of galaxy; spiral, elliptical, barred spiral, and irregular. She also showed that there are galaxies that merge. To put the main galaxy types into a diagram, Karen showed us Edwin Hubble's “tuning fork” which is shown below:



During her studies, Karen looks up the NASA extragalactic database. There she can look up millions of galaxies and many other objects in the night sky.

DIGITAL REVOLUTION

Here, Karen showed us the digital age of photography and imaging. During her time, she has seen the use of the Closed Coupled Device (C.C.D.) type of digital camera and the use of SDSS for imaging and spectra. Karen showed us the advancement of the digital age by the use of software that can zoom in and out extensively. She gave an example of this by showing the Whirlpool Galaxy, M51, and from the typical photograph of it, she zoomed out five times until there was a 3 dimensional image of all the known galaxies in the universe.

GALAXY CLASSIFICATION

Finally, Karen talked about the galaxy classification. With this, she would ask a series of standard questions such as:

1. Has the galaxy got spirals?
2. Are those spirals “clockwise” or “anti-clockwise”?
3. Has the galaxy got a bar? etc.

Astronomical Histories by Geoffrey Salt

Willhelm Friederick [1738-- 1822]

Hanoverian born musician and astronomer, he took up prestigious post of Organist at Bath's fashionable Octagon Chapel in 1776. His interest in the mathematical harmonics of music aroused his curiosity in the mathematical basis of light and astronomy, and this led directly to making metal speculae for his own telescopes. He proved to be a gifted optician, creating mirrors up to 1.1 metre in diameter, much sought after in Europe.

Herschels main claim to fame rested on his discovery of Uranus in 1781, and subsequently two of its moons, the first of a planet in recorded history. He did much more than this however, noting more than 2000 new nebulae and clusters, and realising that the Milky Way is a plane of view through the Galaxy, though this term and concept were not then understood.

The mind bending science of cosmology was being born; the Herschels, and Lord Rosse [1800-67] having much to do with its conception.

Karoline Lucretia Herschel [1750-1848]

In 1772, Herschel brought his sister to England, away from her life as family drudge, to be his companion and assistant. She was to become far more than this however, and in her long life discovered many deep-sky objects, and seven comets. She lived to the great age of 98, unusual for those times- even for a drudge!

John Frederick William Herschel [1792-1871]

Son of Willhelm out of his marriage to Mary Pitt [1778]. Became his fathers protege, discovering several hundred nebulae and clusters in England. In 1840, went to Cape of Good Hope in Africa, and from there discovered 2900 new nebulae and clusters.

He compiled the General Catalogue of Nebulae and Clusters, [GCNC] used by Dryer in his New General Catalogue [NGC] Cosmology was on its way.

Thomas Harriot [1560-1621]

English mathematician astronomer and surveyor. Believed to be first to have used a telescope to observe astronomical bodies. He observed the Moon, Jupiter's satellites, and studied sunspots, thus deriving its rotation. His work was contemporaneous with that of Galileo, but though he published no results, his moon maps are convincing to any 'Lunartik'

There is an interesting article in BAA. Journal no. 118, of a lecture delivered by Alan Chapman, about this, the oldest known telescopic astronomer. Harriot probably made use of the the 'Dutch Trunkes' then on sale in Europe in 1609, as did Galileo in Italy at this time. Recommended read.

Personal notes on the text: The mathematical connection between the harmonics of music and light are evident in some astronomers, some of whom were also musicians Noted British composer.

Robert Simpson [1921-97]

A member of the BAA. And RAS. His 6th. Symphony had as its dedicatee prof. Ian Craft, a pioneer of IVF. treatment in this country, who at one time crewed aboard my sail boat 'Nyvaig'. My own composing efforts terminated at age 16.

Uranus. I could not get a view of this planet in smoky Midland skies, and this had to await the clear skies of Egypt, some years after WW2. There, after a bleak spell guarding German POWs. in 1948, I was sent to deliver dispatches throughout the Western Desert, where I did thousands of miles on my old wartime BSA 500 cc. sidevalve, camping out with a gas cape, under brilliant desert skies.

There were no magazines for amateurs in those far off days, though there were two in the States at that time; one called 'The Telescope,' the other, 'The Sky'. I didn't know of these of course, and couldn't have afforded the Import Licence necessary to import them into post war Britain at that time What I did have was a dog-eared copy of the Nautical Almanac of 1944, and with this was able to compute the planets position, and finding it with my own edition of Harriots 'Dutch Trunke'.

How things have changed!

GMS.

International Year of Astronomy Event

Open Night at the School of Physics and Astronomy

Wednesday 1st April 2009 7-9pm

School of Physics and Astronomy, University of Southampton, Building 46, Highfield Campus.

A night with the stars

The School of Physics and Astronomy will be hosting an Open night to celebrate the International Year of Astronomy. The evening will include tour of the observatory at the School, an Astrophotography talk by Professor Greg Parker, a course in how to take photographs of the stars, and a live link to UK astronomers doing research in observatories at the University of La Laguna in Tenerife.

Astrophotography - a talk by Professor Greg Parker

Astrophotographer Greg Parker (Professor in Photonics at the University of Southampton) will give a talk on his photographic work. Greg is interested in deep sky astrophotography.

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July 23rd	Stephen Cole	
August	N/A	
Aug 27th	Michael Hobbs	BBQ
September 10th	Ian Gore	SAS AGM + John Thompson Memorial lecture.
September 24th	To Be Arranged	
October 8th	Jerry Workman	The Apollo Missions.
October 22nd	To Be Arranged	
November 12th	To be Announced.	