



### Why are we here? An astronomer's guide to the Universe

A small group of GFAS members attended the above talk by Prof. Martin Hendry at the Kirkcudbright Dark Space Planetarium on 27<sup>th</sup> February. He took them from the incredibly small scale of quantum mechanics to the unbelievably large scale of dark energy and the accelerating expansion of the universe. Mind-bending stuff!

### Girvan Academy Science Fair

Four GFAS volunteers took our inflatable planetarium to Girvan Academy on March 11<sup>th</sup> and delivered five presentations to third year and sixth year students during the day. Our presentations were based on the "Parade of the Planets" planetary alignment earlier in March, with some information about constellations - how people first invented them, how they can be used as a guide to the night sky and so on.

We set up in the games hall this year which gave us lots of space for the dome as shown in the photo, taken while waiting for our first group of students to arrive. The event was well received by the youngsters and hopefully sparked in some of them an interest in astronomy. Many thanks to the school staff for their help and support during the day.



### Partial Solar Eclipse 29<sup>th</sup> March

We had a good turnout of GFAS members in the hope of recording the eclipse on the morning of Saturday 29<sup>th</sup>, with a small group of solar-equipped telescopes and a large collection of solar spectacles to hand out to visitors.

Sadly, though, south-west Scotland was under a sheet of cloud all morning, and although the sun was there in a ghostly form from time to time, no observation of the eclipse could be done.

We did get to speak to a few visitors and to hand out a few free pairs of Solar Specs, so the day wasn't entirely wasted. Thanks to the Belted Galloway Visitor Centre for letting us use their car park once again.

### What's next this spring

- \* **NEW** \* **Thursday April 10<sup>th</sup> 6:30 pm:** Andy Sawers FRAS - *Twenty Amazing Things About Space* - see Page 2 for details!
- \* **Thursday April 24<sup>th</sup> 7:30 pm** Newton Stewart Golf Club: Astronomer Brendan Owens on "Our Fascination with Mars". Also an observing session if weather permits - note sunset about 8:40pm
- \* **Friday May 9<sup>th</sup> 7.30pm** Newton Stewart Hut: astronomer Mary McIntyre on "Constellations: From Mythology to Modern Day"
- \* **Saturday May 24<sup>th</sup> 10:30 am** Belted Galloway Visitor Centre, Newton Stewart - Solar Observing Session
- \* **Saturday June 21<sup>st</sup> 3:30 pm** MacMillan Hall, Newton Stewart (TBC) - Planetarium Dome display for Summer Solstice

**GFAS Membership:** We always welcome new and returning members, especially juniors who join for free. Subs remain at £15.00 Adult, £25.00 Family, £0.00 Juniors or Students in full-time education. Just email [members@gf-astro.org](mailto:members@gf-astro.org) for a form or download a form from the website.



## Galloway Forest Astronomical Society

Registered Scottish Charity SC035033.

Chairman: Antony Berretti Secretary: Jayne Davis

W: [www.gf-astro.org](http://www.gf-astro.org) E: [members@gf-astro.org](mailto:members@gf-astro.org)

Fb page: [@GallowayForestAstronomicalSociety](https://www.facebook.com/GallowayForestAstronomicalSociety) / Fb Group: [@gfas chat](https://www.facebook.com/gfas_chat)

**Supported by Kilgallioch Community Fund**

**with funding from ScottishPower Renewables' Kilgallioch Wind Farm**





## Twenty Amazing Things About Space

This is the title of a talk by Andy Sawers FRAS, a GFAS Committee member, at **6.30pm on Thursday 10th April** at the **Kirkcudbright Dark Space Planetarium**. This enlightening and entertaining event is ticketed (adults £8.00, under-16s £4.00) - visit <https://www.darkspaceplanetarium.org/events/> to book a place.

What would the night sky be like if we could actually see galaxies? Is a cheap watch a better timekeeper than the Sun? What's the extraordinary coincidence that gives us solar eclipses? And how did the discovery of Uranus lead directly to the discovery of Neptune? Andy highlights twenty things about astronomy and space exploration that he thinks are simply amazing. What things do you think should be on the list?



## The Whirlpool Galaxy

Dane Carty got his SeeStar telescope out in his garden in Newton Stewart last week. He locked it onto the Whirlpool Galaxy and spent about 40 minutes imaging it, sandwiched between the night actually getting dark enough and the clouds rolling in. Here's the resulting image.

The lower object in the picture is the Whirlpool Galaxy (M51a) and the smaller object above it is NGC 5195 (M51b). They are interacting galaxies, both located in the constellation of Canes Venatici.

M51 can be located by finding the easternmost star of the Great Bear, Alkaid, and going  $3.5^\circ$  southwest. Its declination is  $+47^\circ$ , making it circumpolar (never setting) for observers above the 43rd parallel north. You can see M51 through binoculars under dark sky conditions, and it can be resolved in detail with modern amateur telescopes.

Amazingly, the Whirlpool Galaxy is between 23 to 31 *million* light-years from Earth, so what you can see here is what it looked like about 25 million years ago! It has a diameter of 76,900 light-years. Overall the galaxy is about 88% the size of the Milky Way and its mass is estimated to be 160 billion solar masses, or around 10.3% of the mass of the Milky Way.

## The Iris Nebula NGC 7023, LBN 487 & LDN 1174

GFAS member Alistair Scobie recorded this fascinating image during March. 21 hours of integration allowed him to drizzle the data x3 and create a detailed crop of the central section of the nebula, showing the bright nebula LBN 487, the central reflection nebula NGC 7023 and LDN 1174 cloud complex.

The Iris Nebula (NGC 7023) is a bright reflection nebula in the constellation Cepheus. NGC 7023 refers to the open cluster within the larger reflection nebula designated LBN 487. The nebula, magnitude +6.8, is 1,300 light-years away and six light-years across.

LDN 1174 is a dark nebula, a type of interstellar cloud, that obscures the visible wavelengths of light from objects behind it, such as background stars and emission or reflection nebulae.



## Newsletter Articles

Please send us your astro news! We are happy to consider all contributions to our newsletters and we will always acknowledge the source of anything we use. Just email us any original astronomy-related items for consideration.

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