

Cleveland and Darlington Astronomical Society
Minutes of Ordinary Meeting Held on Friday, December 9th, 2011 at 1930
in Wynyard Woodland Park Planetarium

1. Chairman, Barry Hetherington, opened the meeting at 1930.

2. Notices

i) Ed Restall reminded members about the BBC Education programme on astronomy, with Prof Brian Cox and others, being a repeat of the successful edition held at about the same date last year. There were also other events around the county, which can be found on the Planetarium web site.

ii) From Neil Haggath -- There had been a change in the lecture programme for the meeting on January 13th, 2012, owing to Dr Pete Edwards of Durham University being unavailable. However, Dr Edwards had arranged a replacement, Prof. Carlton Baugh of Durham University talking on "Building the Universe".

-- The meeting after that will be the AGM and Members' Night, on Friday, February 10th, 2012. Any member who has a presentation to make, please contact Neil well before the meeting.

-- Four new members were presented with the CaDAS Information Pack.

3. Lecture for the Evening, "What We Still Don't Know", by Dr John McCue

After an introduction by Neil, reminding members that Dr McCue was an old friend of his, who had been instrumental in founding the Society and having the Planetarium built, John was invited to give his talk.

John asked that members treat this as a discussion, rather than a formal talk, with questions and comments welcome at any time throughout. He gave the latest news from theoretical physicists and astronomers on the following topics.

Holographic Principle. Are we all a hologram projected on the surface of the Universe?

Faster than Light Neutrinos. The recent measurements suggesting that neutrinos possibly travel faster than light has brought Einstein's Theory of Relativity into question and is being pursued by several research teams to try to corroborate or contradict the findings of the Italian Gran Sasso researchers.

Origin of the Big Bang and the Multiverse. This topic is always of intense interest and the implications of the Multiverse suggested by quantum theory stretch the mind considerably. As one member commented, it implies there are an infinite number of Earths somewhere!

Dark Matter and Dark Energy. The continuing search for an explanation for the movements of Galaxies and Groups of Galaxies and also for the accelerating expansion of our Universe continues. None of the postulated explanations have yet been verified experimentally.

Dark Flow. A recent observation that large groups of galaxies seem to be moving in similar directions may indicate an attractor outside our own Universe.

Life outside the Earth. Always a fascinating topic, and the famous probability equation indicates there may be quite a large number of places outside Earth that may support some sort of life. A new NASA "Rover" probe will be sent to Mars soon, with instruments dedicated to searching for the possibility or remnants of past life on the planet.

4. Vote of Thanks and Closure of the Meeting

The Chairman thanked John for his talk and raising these fascinating topics for us to think about. He closed the meeting at 2055.

15/12/2011
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