X Astronomy Education and Outreach

Time: **Friday 7th April, 11.00**
Location: **Bennett 3**
Chair: **Paul Roche**

X.1 Introduction: astronomy and space science education in the UK

Dr Paul Roche (Cardiff University/Faulkes Telescope Project) - Oral presentation

X.2 Bringing Space Into School Science

Prof Martin Barstow (University of Leicester) - Oral presentation
The title of this talk is that of a report commissioned by the BNSC partnership as part of a National Space Education Initiative and which was prepared by the speaker under contract to BNSC. The talk will discuss the context for the study, outline the various consultations undertaken, discuss the key findings and present the final recommendations for further action.

X.3 The Barstow Report: a PPARC View

Mr Andrew Morrison (PPARC) - Oral presentation

X.4 Motivate Videoconferencing, widening participation

Dr Lisa Jardine-Wright (Cavendish Laboratory & National Maritime Museum) - Oral presentation
J. Gage [1], A. Cullum-Hanshaw[2], ((1 & 2) Centre for Mathematical Sciences, University of Cambridge)
Cambridge Motivate Videoconferencing project connects schools and children all over the world with practising scientist and mathematicians who work in a wide range of fields. I will describe the opportunities on offer from this project and its aims and methodology whilst showcasing some of the work and achievements of the schools involved.

X.5 The Armagh Observatory Human Orrery

Prof Mark Bailey (Armagh Observatory) - Oral presentation
The Armagh Human Orrery is a dynamic model of the solar system in which *people* play the role of the moving planets. The users' interactions with the model lead to greater awareness of their place in space and understanding of our planet's changing position with time. It is an innovative concept, the first in the world to show with precision the elliptical orbits and changing positions of the main bodies in the solar system. It is simple to use, and draws people into mathematics and science in a fun and entertaining way, introducing key concepts in astronomy and space science. For more information, see http://star.arm.ac.uk/orrery/.

X.6 Horizon Astronomy in the Ruhr Area

Mr Daniel Brown (Astrophysics Research Institute JMU) - Poster presentation
D. Brown (Astrophysics Research Institute JMU)

Mankind has always been aware and showed great interest in the paths of sun, moon and the stars, trying to understand and predict them. For several thousand years he has been using the horizon as an instrument for these astronomical observations. One of the most prominent structures used for horizon astronomy are stone, wood and earth circles, e.g. Stone Henge. Due to increasing housing development and light pollution we have forgotten many of these basic astronomical facts, peaking in the common statement, that the sun always rises in the east and sets in the west.

This has inspired us, the private initiative 'Inita Horae', to establish an Astronomical Theme Park including a one hundred meter diameter Horizon Observatory on top of one of the highest slag heaps in the Ruhr Area, Germany. Its aim is to revive ancient observing techniques, naked eye observations and convey basic astronomical knowledge to the broader public.

Here we present the project and its different attractions, including a giant sun dial consisting of an eight meter high stainless steel obelisk, that has been already completed. The sundial will serve as an example of how this project can increase the awareness of astronomy in every day life as well as its use in public education.