Research Theme: Culture

Case Study

Bringing Astronomy to the Forefront of Welsh Cultural Life

RESEARCHERS

Professor Eleri Pryse
Professor Huw Morgan

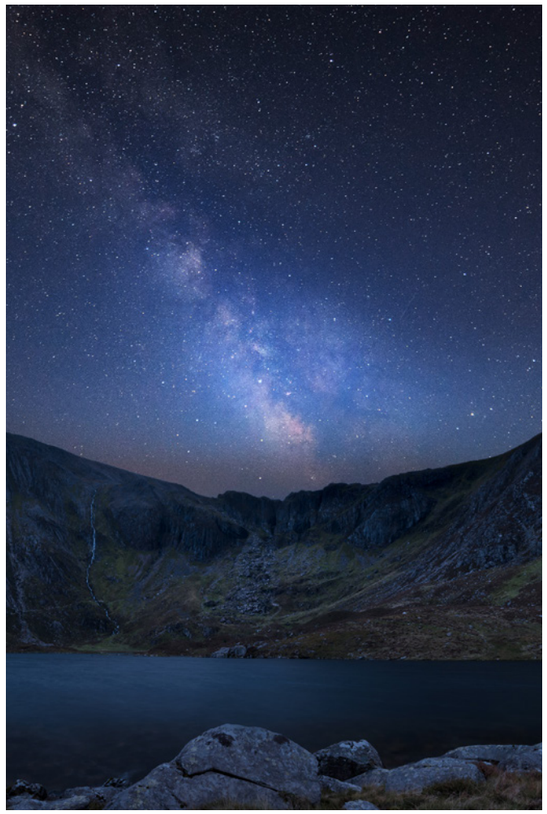
THE OVERVIEW

The Solar System Physics group (SSP) at Aberystwyth University (AU) studies the chain of events leading from the Sun, through the solar wind, to the atmospheres and surfaces of the planets. The solar atmospheric physics, space weather, and planetary ionospheric physics research conducted by the SSP group is of international standard, specifically the solar atmospheric physics, space weather, and planetary ionospheric physics. This helped secure funding from the Royal Astronomical Society, through their RAS200 Sky & Earth outreach and engagement fund, to introduce astronomy to schools and cultural events throughout Wales.

THE RESEARCH

The SSP embarked on an ambitious project to use Welsh cultural events as a vehicle to deliver scientific themes to a wider audience, through leading the prestigious **'Astronomy and Geophysics through the traditional culture of Wales'** RAS200 project. It introduced astronomy to schools and cultural events through numerous workshops, competitions and creative events, reaching thousands of active participants and an audience of tens of thousands. This reach continues beyond the project lifetime, leaving a legacy of scientific-themed artistic publications including music, artwork and published books.

> **"Collaboration with Aberystwyth astronomers… has given my creative work a new impetus, leading directly to *Lloerganiadau*. In addition, Huw Morgan has given me detailed scientific guidance on a number of aspects. This gives me confidence to present the science accurately and credibly."**
>
> **FFLUR DAFYDD, MUSICIAN, PLAYWRIGHT & NOVELIST**



THE IMPACT

IMPACT ON PROFESSIONAL ARTISTS

The project has commissioned many creative works based on astronomical themes: installation art, music concerts, and poetry. New works by leading musicians, dancers and poets, based principally on themes developed in discussion with the Department of Physics at AU, have reached large audiences. The project culminated with the main theatrical musical concert of a National Eisteddfod *Lloergan* (Moonsong), blending the cultural and scientific richness of Wales. Director Fflur Dafydd (musician, playwright and novelist) noted that astronomical and scientific discovery became central to the creative process and that discussions with AU scientists were crucial to the project. Musical director Griff Lynch (singer, composer and TV producer) acknowledged the input of AU scientists as crucial in creating the framework for the show's musical vision.

IMPACT ON LEARNERS

Themed workshops were held in schools, led by artists, musicians or poets, with underlying science support from project members. Eight different workshops, held in 26 schools for more than 1,000 children, produced creative works for performance or exhibitions at the Eisteddfodau, with significant media attention. The workshops captured the imaginations of the children. The project also provided on-line resources for HE students via Coleg Cymraeg Cenedlaethol.

IMPACT ON ORGANISATIONS

The National Eisteddfod's Science Pavilion has grown to become a Science Village with activities bringing a fresh and new dimension to this cultural festival. Scientists have become prominent within the organisation, with Professor Eleri Pryse and Professor Andrew Evans members of the National Eisteddfod's Central Committee. The growth of scientific events and themes on the Urdd's youth Eisteddfod Maes have been important in attracting a new audience. Astronomy has become central to many Urdd Eisteddfod performances and Craft, Design & Technology competitions as a direct result of this project. Approximately 25,000 children and adults have taken part in scientific activities and the participants involved have gained "pride, empowerment and confidence".