

COLLABORATION BETWEEN PROFESSIONAL INSTITUTIONS IN RAISING THE PROFILE OF ASTRONOMY RESEARCH

SHANE HENGST & SHAILA AKHTER

School of Physics, UNSW Australia, NSW 2052, Australia

E-mail: s.hengst@unsw.edu.au

(Received November 30, 2014; Revised May 31, 2015; Accepted June 30, 2015)

ABSTRACT

The Physics Outreach Unit at UNSW Australia contributes to the goals of the IAU's Commission 55 by collaborating with established institutions to improve public engagement with science. We aim to not only increase public awareness of astronomy but also ensure the benefits to society of our scientific endeavours are understood. We have found collaborating with like-minded institutions who are working in similar spaces allows both parties to make a larger impact than working alone. For example, our long-term collaboration with the Australian Museum provides the opportunity to engage urban and rural communities with science, audiences to which we do not normally have easy access. To increase our national presence we are exploring new relationships with other institutions, in particular the Astronomical Society of Australia (ASA), in hosting events such as public talks with eminent astronomers, star parties and astronomical workshops. These partnerships help build firm foundations for planning future events, in particular during the International Year of Light 2015.

Key words: Outreach, Physics, Astronomy, Collaboration

1. INTRODUCTION

An outreach unit based within a research institution can help professional astronomers (or indeed all scientists) engage the public with science. Rather than operating independently, collaborating with other institutions enables a greater engagement with the community and assist in the realisation of Commission 55 (Christensen & Russo (2007)). The Physics Outreach Unit operates within the School of Physics at the University of New South Wales (UNSW) located in Sydney, Australia. To date, the Unit has collaborated with different types of institutions broadening its impact. We would like to use the International Year of Light 2015 as an opportunity to expand current relationships and to engage with new strategic partners. This paper is to help promote the UNSW Physics Outreach Unit to like-minded institutions whom are interested in collaboration.

2. PHYSICS OUTREACH UNIT

A dedicated astronomy outreach group was established in 2008 within the School of Physics with the aim of promoting UNSW astrophysics during the 'International Year of Astronomy 2009' and beyond. Postgraduate students coordinated the group, supported by an academic. A small initial budget and cost recovery format provided the opportunity to hire casual postgraduate and undergraduate students to staff events and activities. The co-

ordinators provided training and support to the casual staff as required.

In 2011, the astronomy outreach program transformed into the Physics Outreach Unit with the support from the Head of School. Activity content was, and continues to be, developed to promote research conducted within the School of Physics. The Unit is managed part-time, supported by two casual coordinators. The Unit continues to cost recover off-campus events and now receives financial support from the School of Physics in the form of salaries for the manager, coordinators and student presenters.

To ensure the Unit is aware of best practice in national and international outreach, Unit staff participate in meetings and conferences. For example, showcasing the Unit's collaboration with the Nepalese community at the 'Communicating Astronomy with the Public Conference' in Warsaw, Poland 2013.

The Unit has been delivering a variety of activities to engage with the public. For the local community, the Unit has held public events such as science talks and telescope viewing sessions. For schools, the Unit has delivered interactive presentations and hands-on workshops. In addition, the Unit also engages communities and schools via the UNSW Physics YouTube Channel, Facebook and Twitter accounts.

The Unit's goals are to:

- raise the public awareness of physics and astronomy

- increase the number of students majoring in physics at UNSW Australia
- extend our reach through strategic partnerships with relevant institutions
- evaluate the effectiveness of the Unit's activities in achieving the above goals.

3. STRATEGIC PARTNERS

The Unit has found collaborating with institutions that have similar goals allows both parties to make a greater impact on the community.

For example, the Unit's long-term collaboration with the Australian Museum increases its engagement with primary and secondary schools and communities in urban and rural areas. The Unit actively works with the Australian Museum for their annual city and rural events. The Australian Museum benefits by having more activities to offer school groups at their Science Festival. This also boosts the profile of the Australian Museum by having active researchers from outside the museum to help promote science.

The Unit's collaboration with Matrix Education, an after school tuition college, allows direct engagement with year 12 students. The students attend a day of experiments related to their HSC studies at UNSW Australia three days a year. The Unit benefits by having bright and enthusiastic students from a broad range of schools going into the School of Physics' laboratory facilities with the hope of encourage to study Physics at UNSW Australia. Matrix Education is now able to provide their students a unique opportunity compared to other competing after school tuition services. The student also benefit as they are given an opportunity to sharpen their experimental skills, which constitutes half of their internal assessment at their respected schools.

4. INTERNATIONAL YEAR OF LIGHT

The Unit intends to increase its engagement with its current strategic partners and to find like-minded institutions to make a greater impact with the public. In gearing up for the International Year of Light, the Unit aims to showcase a number of workshops and presentations that are "light" themed with the community alongside our partners.

5. CONCLUSION

Participating in the Asia-Pacific Regional International Astronomical Union Meeting in Daejeon, Korea, July 2014, in particular the OAD (Office of Astronomy of Development) meeting, and this paper are the first steps towards engaging new partners to raise the importance of astronomical research and capturing the public's imagination. If you wish to collaborate with the UNSW Physics Outreach Unit, please contact the primary author of this paper, we would love to hear from you!

REFERENCES

- Lindberg Christensen, L. & Russo, P., 2007, *Communication Astronomy with the Public, Future Professional Communication in Astronomy*, 199