

Sparking physics events around the country



The Einstein International Year of Physics 2005 seed grant scheme

One of the Australian Institute of Physics' experiments for Einstein Year was a seed grant program. \$37,115 seeded sixteen initiatives across Australia.

Some recipients were individuals like ANU PhD student Melanie O'Byrne – her *flowvis* exhibition toured nationally and was seen by 100,000 people. Some grants helped our major research organisations reach new audiences – CSIRO ran a physics short film competition that was screened in 70 venues and reached 10,000 people.

Science in Public's Duncan Byrne reports on some of the achievements of the grants program.

Over the Einstein Year, the Australian Institute of Physics, with support from the Department of Education, Science and Training, offered two series of seed grants for individuals and organisations running events that celebrated the Einstein International Year of Physics.

Sixteen projects across Australia were awarded grant money. Each explored physics in unique and compelling ways from drama and art exhibitions to public forums.

Damian Harris and Graeme Cook from James Cook University used their grant to host *Moonlight and Movies at the Strand*, a public astronomy event held in Townsville, Queensland. Over 700 avid stargazers participated in the two nights at the beach. Professional commentary and multimedia presentations accompanied the hands-on activities to create, in the words of Damien and Graeme, a successful event 'with a great vibe'.

Another major public event was hosted in Sydney by the Sydney Observatory and the Powerhouse Museum. Despite gale force winds, over a thousand people braved the elements to learn about Einstein's discoveries with dramatic performances and practical demonstrations at Sydney Observatory. This was organised by Toner Stevenson.

Helen Gardiner, a freelance science communicator, used her grant to stage a live music event with a scientific edge. Over a thousand families went a bit tribal with physics at *Dijeridu – Triumph of Mind Over Matter*, a show that toured the Northern Territory and Victoria throughout National Science Week. Djeridu player Geoff Shores and harmonic singer Dean Frenkel amazed the audience while physicist Lloyd Hollenburg pulled apart the physics behind the music. The audience were encouraged to 'BYO Didj', but those without were given the next best thing – cardboard tubing.

Chris Kennedy from CSIRO Land and Water used a grant to promote physics in SCINEMA, a science film festival that toured 70 locations across the country. Ten thousand people attended screenings and participated in voting for a Short Physics Film competition. The grant allowed Chris to publicising the physics film competition nationally to schools and the films from the 13 finalists were curated into a 90 minute program which was screened nationally.

One of the most successful Einstein Year events was *flowvis: the art of fluid dynamics*. Run by Melanie O'Byrne from Australian National University, this travelling exhibition has been to almost every state allowing an estimated 100,000 people to experience the natural art hiding away in our labs. There was extensive media coverage, including ABC

TV news and there is even talk of merchandising the images – expect *flowvis* calendars to become the must have lab ornament for the discerning physicist.

Other successful public events made possible by this scheme included a bus tour of physics related heritage sites in Brisbane, a physics exhibit at a rural show in Koondrook, New South Wales and a live astronomy show and lecture at the University of Southern Queensland.

A number of projects focussed on students. Wade Shiell and Sean Manning from the AIP SA branch presented a physics show to eight primary schools in Pt Pirie and got on local television. They are now planning to take their physics show to other rural areas in South Australia. Dan O’Keefe from the AIP education branch created *Playground Physics*, an physics resource for teachers that uses school play equipment as the locus of physics exploration.

Over in Western Australia, Dianne Tompkins from Murdoch University designed and collated resources for high schools that explore hydrogen fuel cells and eco-friendly transport.

Craig Savage from the Australian National University created and distributed another teaching resource titled *Through Einstein’s Eyes*. This multimedia presentation CD for schools discusses relativity, and has been distributed to over 2,000 schools, with a further 1,000 to be circulated over coming months.

Exeter High School in Tasmania hosted a 14 day Energy Exploration fair where year 9/10 students presented science shows to local primary students. Over 250 primary students witnessed demonstrations of plasma balls, hydrogen fuel and static electricity. Jane Hall-Dadson, the organiser of the fair, has since created a fair manual to assist others interested in running a science fair.

The Physics Demo Troupe from the University of Queensland created a stage show for schools covering the ‘physics of everything’. The troupe, consisting of physics students Jenny Riesz and Joel Gilmore, took the show to 600 students in outback Queensland and the Torres Strait Islands.

Also touring regional Queensland was the Queensland University of Technology Smart Train with local ABC radio as a partner. At each stop through twenty four rural towns, an estimated 21,000 visitors jumped onboard to take part in the displays and watch the ‘Funky Physics Show’ performed on the Physics platform. Melissa Falla, the coordinator booked 152 schools in to see the show.

Through the seed grant scheme, thousands of Australians were exposed to a world so often sealed behind laboratory doors. And many project managers have expressed interest in continuing their initiatives into 2006

The seed grant scheme achieved its goal of sparking off physics events around the country which stimulated the natural curiosity of students, teachers and members of the community in the world around them.

The AIP thanks the Commonwealth Department of Education, Science and Training for their support of Einstein Year.

More information:

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