Demonstrating at the BT Young Scientist and Technology Exhibition, running physics teachers’ conferences, an all-Ireland lecture programme, the Spring Weekend, meeting government ministers, “busking for physics” at the Gourmet Garden Festival in Belfast and advertising physics on the buses – just a glimpse of the range of activities in which the Institute of Physics in Ireland has been involved in this past year.
Annual activities and outreach

**Physics on the buses** was an adaptation from a Nexus student campaign. Four eye-catching yet challenging physics multiple-choice questions, to which answers could be sent by text on a mobile phone, were placed on public transport last November. Numerous buses in Dublin, Cork, Limerick, Galway, Waterford and Louth were included in the campaign and all 132 carriages on the DART. Over 700 text responses and 600 hits to the web page have been recorded – not accounting for the tens of thousands who would have been engaged by the physics teaser questions while travelling.

Staying with the advertising theme, the IOP in Ireland has created an advert promoting membership of the Institute that can easily be inserted into conference abstract books or posted on noticeboards. The advert points to the professional advantages of membership that includes a free copy of *Physics World*, receiving Chartered status, participation in the physics community and influencing physics policy on these islands. The *Optics and Photonics student conference* in NUI Galway, the *Association of Physical Scientists in Medicine AGM* and the *Irish Meteorological Society* have each used the advert in conference publications this year. The IOP black bags that were printed have also proved an extremely popular way of sponsoring conferences and events.

The activity on [www.iopireland.org](http://www.iopireland.org) has been analysed in some detail since last September in order to help focus our resources and plans for the future. It is salutary to note that in 162 days the website had 7436 visits from 115 countries with a total of 18 440 page views. The top content (most visited pages) are the homepage, “Day in the life” careers, Transition Year Physics, Spring Weekend and the physics question cards (described above and see advert below).

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**Would the candle...**

...not light at all?

...burn dimly for a while?

...briefly burn very brightly, then go out?

Text unit, dim or bright to 087 938 2257 to find out if you’re right...

...and for the full story visit [www.iopireland.org/questioncards](http://www.iopireland.org/questioncards)
The IOPI has been active on both sides of the border this year, raising issues and promoting physics throughout the island.

On the northern front, the Institute has been actively engaging with the Assembly through a series of meetings with education minister, Caitriona Ruane, minister for employment and learning, Reg Empey and a joint meeting of the three committees for Enterprise, Education, and Employment and Learning as well as with bodies such as the CBI and the Institute of Directors. The recurring theme throughout has been the long-awaited report of the NI Science, Technology, Engineering and Maths (STEM) Review, which was finally published in October 2009. It sets a blueprint for increased uptake of science at all levels. The IOPI has contributed to it, particularly calling for the appointment of a government chief scientist for NI as a first step towards implementing the STEM agenda.

As part of its response to STEM issues the NI Department of Education has provided funding to the Institute of Physics for the employment of two additional Teacher Network co-ordinators who took up position in December 2009.

Meanwhile in the Republic, in the face of an increasingly bleak economic picture, the Institute has made a strong case for maintaining government funding for science at all levels. Using comparisons from around the globe it is clear that investment in science and technology is vital to the country’s economic recovery.

Meetings and representations on these issues have been made with Batt O’Keeffe, minister for education, Conor Lenihan, minister for science, technology, innovation and resources, senior civil servants in both departments and with the Office of the Chief Science Adviser to the Government. The annual Heads of Physics meeting in May continued this theme with Fionn Murtagh, Science Foundation Ireland’s director for information, communications and emergent technologies speaking to the group.

An annual online survey has been established for third-level physics students in their first year that looks at the motivating factors behind their decision to study physics. For many it was clear that the student’s previous experience of the subject was a very strong determining issue and particularly the influence of their physics teacher. However, probably the most important aspect has been the student’s own inherent interest in the subject with many citing areas such as the “big” questions in cosmology and particle physics as being strong drivers, together with the emerging new technologies.

The students also highlighted, though, that accurate information on courses and careers was critical in helping them to decide to take physics further. For this reason, the IOPI is delighted to have obtained €4000 from Discover Science and Engineering to support the enhancement of its careers materials, “Day in the life”.

External relations and policy
For the future

In a revision of the operational structure of nations and branches IOPI now has direct representation on all of council’s boards and committees: Science, Education, Business and Innovation, Membership and Qualifications and External Engagement. This puts IOPI in an ideal position to retain the essential strength and backbone of the Institute of Physics as well as increasing its impact and influence in Ireland placing physics at the heart of education and the smart economy.

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Education

Physics in Action was the title of this year’s Tyndall Lecture from Dr Cathal Flynn from Dublin Institute of Technology. Seven venues hosted nine lectures around Ireland and students were treated to a selection of spectacular demonstrations to show physics in action. Those placed first in physics examinations in A-level in NI and in the Leaving Certificate were all honoured with Institute of Physics silver medals, which were presented locally. The Earnshaw Prize for the best final-year undergraduate physics project in Ireland was presented to Raymond McQuaid from Queen’s University Belfast and the Rosse medal was received by UL postgraduate student Joey Enfield. Dr Catherine Donnelly from Ballymena Academy in Co Antrim received an IOP Teachers of Physics Award at the Annual IOP Awards ceremony in London.

The IOPI Teacher Network co-coordinators in the Republic of Ireland have been actively running workshops, which include The Virtual Physics Laboratory, Rocket Launchers and Differentiated Physics in conjunction with The Special Education Support Service. Collaborations with Irish Science Teachers Association, Second Level Support Service and the National Centre for Excellence in Mathematics Science Teaching and Learning continue. Two new Teacher Network co-ordinators have been appointed in NI bringing the total to five co-ordinators in Ireland. Overall, more than 100 teachers attended the one-day conferences – Frontiers in Physics, held in Waterford Institute of Technology and Physics in Practice, held in QUB. These meetings provided a day of reinvigoration, information and feedback opportunities for teachers, including feedback on the Leaving Certificate physics examinations that was sent to the State Examinations Commission.