

## Obituary – Dónal Flavin

The death of the noted Irish physicist, Dónal Flavin, occurred on 9 November 2005. A native of Inch, Co. Cork, Dónal spent most of his academic career at Waterford Institute of Technology (WIT). His untimely demise represents a great loss to his colleagues and students at WIT.

Dónal graduated from UCC in 1973 with a BSc (Hons) in experimental physics and joined Waterford Regional Technical College as a physics lecturer a year later. From his earliest time there, he threw himself into the teaching of his beloved subject, becoming an inspirational lecturer to students and colleagues. Dónal also became actively involved with the Institute of Physics, making considerable contributions to the advancement of physics in Ireland and organizing the popular Tyndall lectures at WIT.

Dónal was one of the earliest researchers in the RTC sector, specializing in the field of optical interferometry. He completed an MSc in laser physics at Heriot-Watt University (Edinburgh) in 1992 and subsequently established the Optics Research Group at WIT. This research group soon attracted significant research funding, earning national and international acclaim and establishing ongoing collaborations with related groups at Heriot-Watt University, Aston University (Birmingham) and the National Institute for Standards and Technology (Boulder, Colorado).

Dónal's research at Heriot-Watt led to a lifelong interest in interferometric optical fibre sensors. By 1992, such devices were highly developed, notably as hydrophones, but with many other applications such as in the measurement of temperature or strain. The basic transduction mechanism is the change in optical path length with the applied stimulus, usually measured by means of laser interferometry. Dónal had the insight to realize that much richer information was available by interrogating the fibre with a broad-band optical source. He contributed greatly in developing dispersive Fourier

transform spectroscopy specifically for characterizing optical fibres, to measure not just optical phase (and hence path length) but also its dispersion and the higher-order derivatives of phase with respect to optical frequency. He demonstrated, for example, that different stimuli, such as temperature and strain, could be separately identified by their effect on phase and dispersion. His techniques allowed high-resolution measurement using samples very much shorter than with conventional methods. Thus, he extended his ideas to the characterization of other optical materials, with strikingly good effect in the cases of in-fibre Bragg gratings and micro-structured "photonic crystal" fibres (PCFs).

Dónal was a highly respected figure on the international optical fibre scene, especially well known for his regular contributions to the International Conference on Optical Fibre Sensors. His last contribution was a paper presented at the International Conference on Optical Fibre Sensors in Bruges in Belgium in May 2005, demonstrating how the unusual and designable dispersion characteristics of PCFs give them unique advantages in sensor applications.

Dónal served as committee member of the Institute of Physics in Ireland in 1980–1983 and 1998–1999.

In the last year of his life, Dónal was delighted to witness the first intake of students onto the newly established BSc in physics with computing at WIT. Taken in conjunction with his outstanding research achievements, this initiative signalled the culmination of his career.

Dónal's death, after a short illness, was untimely and unexpected. His demise represents a profound loss to the physics community, to his beloved wife Carmelita and daughter Julie, and all of the Flavin family.

**Claire Keary** Waterford Institute of Technology

**Prof. Julian Jones** Heriot-Watt University

## London is venue for WiPG event



Back to front, left to right: Kate Arthurs, Natasha Ivers, Alice Mooney, Sinead Connolly and Eilish Byrne from NUI Maynooth attending the women's conference held in London at the Institute of Physics.

On Wednesday 8 March, International Women's Day, the Women in Physics Group (WiPG) held a conference at the Institute of Physics' headquarters in London. This event was aimed at female students, to promote women in physics and to provide career and educational information and advice.

Five first-year physics students, Eilish Byrne, Sinead Connolly, Natasha Ivers, Alice Mooney and Kate Arthurs from the National University of Ireland in Maynooth, attended the event, which provided an opportunity to meet with other physicists and discuss the career options available to them. The conference was also attended by students from all over the UK, from first year to PhD level.

The promotion of women in physics is a particularly relevant issue, as women are traditionally under-represented in the profession. In 2002, the first international conference was held on this issue in Paris, and 65 countries were represented. A second conference was held in Rio de Janeiro in 2005.

Currently, the Institute of Physics has approximately

35 000 members, including 7700 students, and just 16% of members are women. However, while women represent 25% of the student membership, only 3% of fellows are female. Events such as this help to promote awareness of the issues facing women in physics today.

WiPG chair, Anne Marks, coordinated the meeting, and a wide range of speakers included individuals from a variety of professional and academic backgrounds. Among these speakers were Dr Katharine Hollinshead, diversity programme officer for the Institute of Physics, Dr Joanne Baker from *Science Magazine* and Dr Dimitra Darambara, head of research and development in the Joint Department of Physics at Royal Marsden Foundation Trust and Institute of Cancer Research. Others included Dr Helen Brindley from Imperial College London, who discussed the pros and cons of an academic career and the skills required. Prof. Gillian Gehring from the University of Sheffield shared her experience of becoming the second female professor of physics in Britain and Ireland.