

# einstein<sup>TM</sup> year



Explore, Discover, Invent - Physics

## Einstein Year

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- **Aims and challenges**
- Evaluation and initial statistics
- Highlights of Einstein Year
- Legacy

## Einstein Year = Explore, Discover, Invent

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- **UK and Ireland physicists celebrating physics as part of International Year of Physics**
- **With specific, measurable aims:**
  - To take physics to new, previously uninterested audiences as well as traditional audiences
  - To enthuse, inspire and engage young people with physics
  - To increase the quantity and quality of outreach activities delivered by physicists

## Einstein Year = Planning

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- **Early planning identified:**
  - Specific target audiences for activities
    - Young people not interested in physics
    - Physicists
  - Need to engage whole physics community to deliver activities
    - Physicists as event organisers
    - Organisations as sponsors, funders and organisers
  - Need to develop sustainable activities and resources
    - Ongoing support for physicists
    - Increase long-term capacity for effective outreach
    - Ongoing activities with lasting impact

## Einstein Year = Challenges

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- **Challenges for success included:**

- Involving whole of UK and Ireland physics community
  - Encouraging physicists to do outreach through training, resources, networks
- Reaching target audiences directly and effectively
  - Presenting physics as accessible and entertaining
  - Using appropriate media outlets for audiences such as websites, youth magazines, television
  - Working with professional public relations agencies
  - Experimenting with new types of activities such as viral marketing

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## Einstein Year = Formal Evaluation

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- **Robust evaluation is vital to measure effectiveness and impact of initiative**
  - Independent (Institute of Education)
  - Comprehensive
  - Dependent on clear aims and early planning
  - Significant investment (~10% of total cost)
  - Will inform future activities
  
- **Final results will be published in April 2006**
  - Three-stage longitudinal study of attitudes of 11-14 year olds
  - Exit questionnaires and focus group interviews at events
  - Event organiser interviews

## Einstein Year = Initial Statistics

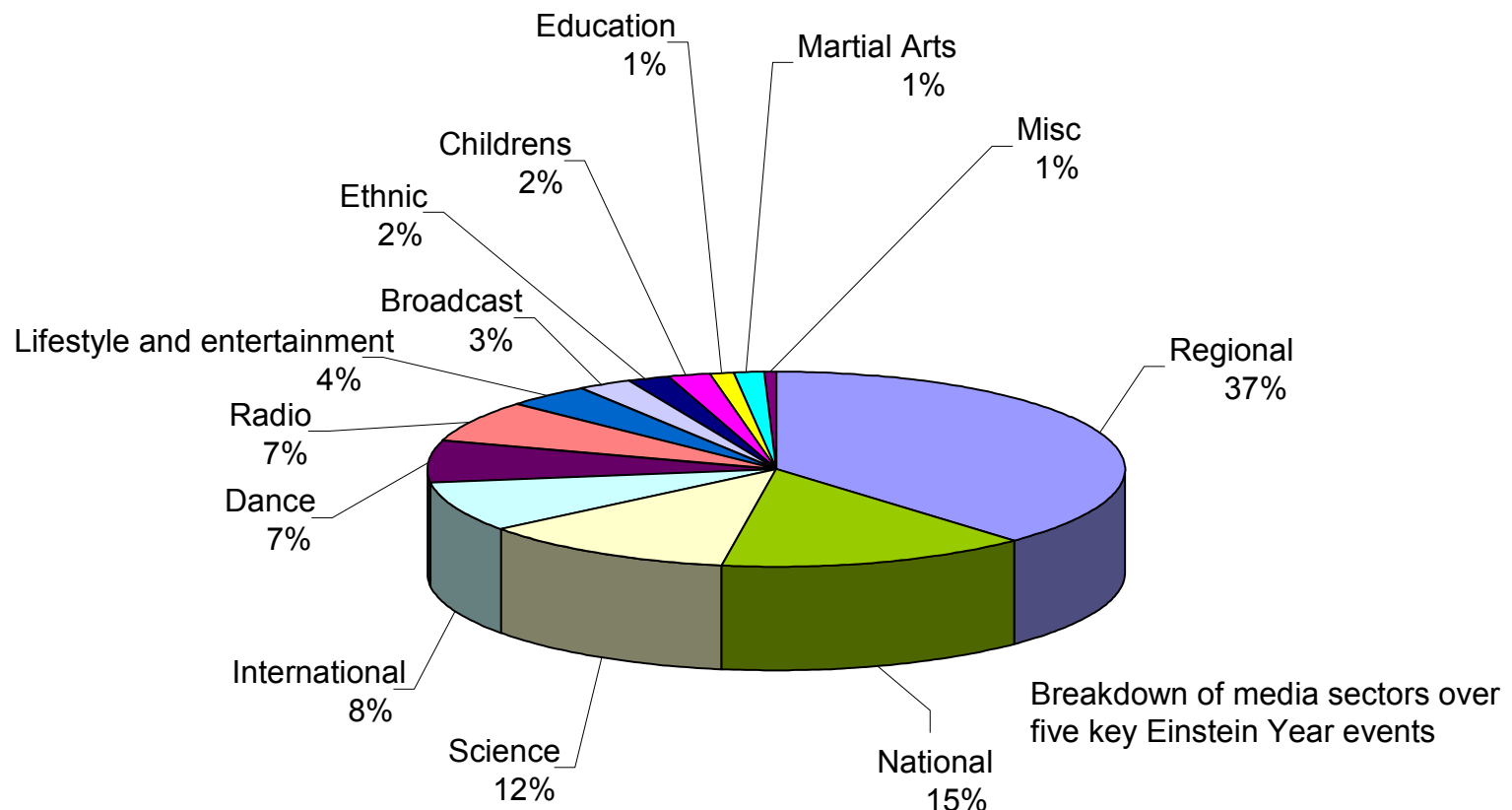
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- **Over 500,000 people attended more than 500 Einstein Year activities that we know about.**
- **48 Einstein Year grants awarded (from 148 applications) for physics-based outreach activities during 2005.**
- **Average of 4,000 visits to [einsteinyear.org](http://einsteinyear.org) per week (peaking at 6,000 per day) and a 40% visitor return rate.**
- **Time Twins, the Einstein Year game, was downloaded over 20,000 times in the first six months after being marketed virally among target audience.**



## Einstein Year = Media Coverage

**Over 400 articles in the press (from *the Times* to *Nuts*) and more than 50 TV and radio broadcasts (from *Newsnight* to *Blue Peter*) generating well over £1.5m advertising equivalent value.**



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## Physics = The Einstein Flip



Launch on 5 January 2005 was a great success generating record press coverage and web visits.

## Physics = Hands On



Move Over Einstein is visiting museums and shopping centres and has so far reached over 180,000 people. The tour continues during 2006.

## Physics = Lab in a Lorry

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Lab in a Lorry takes real science experiments to children throughout the UK and Ireland.

Since launching in May 2005 the fleet of three lorries has visited over 200 schools and more than 40 other events.

250 volunteers have supervised over 30,000 visitors

Independent evaluation by Durham University showed that project is valued by students and teachers alike.

## Physics = Dance



Constant Speed by the Rambert Dance Company premiered at Sadler's Wells in May to critical acclaim and has been seen by over 8000 people so far.



# Physics = Festivals and Girlguiding

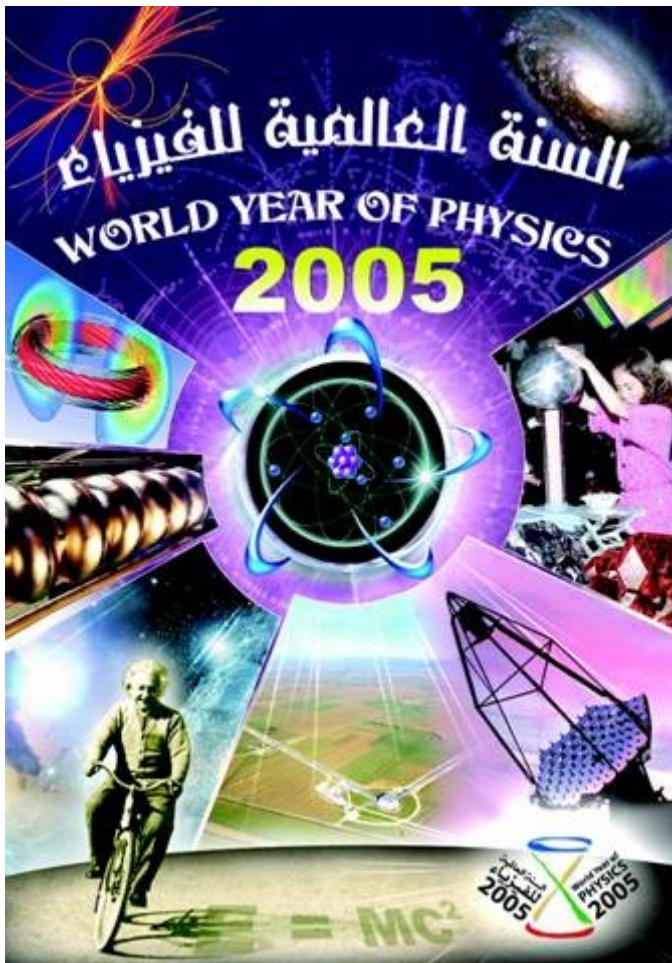


Over 2000 people braved the mud at the Glastonbury Festival to take part in the Physics to Go challenge

Girlguiding UK developed their first science-based award 'Go For It! Experiment' and 15,000 girls have already taken part.



## Physics = Posters



Physics Across the World attracted 1942 entries from 34 countries.

Winners can be seen at [www.einsteinyear.org/events/posters](http://www.einsteinyear.org/events/posters)





# Physics = Kung Fu



www.kungfuscience.org has attracted over 160,000 visits since it launched in July and has featured in *Combat*, *Nuts* and *Toxic* magazines.



## Physics = Experiment

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### **Moon Watch**

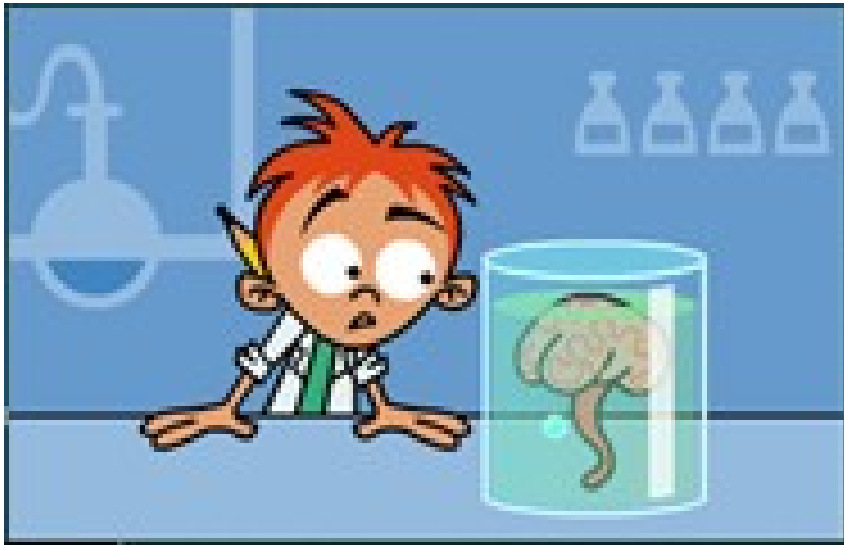
**[www.crescentmoonwatch.org](http://www.crescentmoonwatch.org)**

Ongoing mass participation experiment to improve the data used to predict the sighting of the new crescent moon each month.

Register on the website for monthly email reminders to get out and observe!



## Physics = Medicine and Debates



Developed with the MRC, Inside Story explores how physics helps to save lives.

[www.insidestory.iop.org](http://www.insidestory.iop.org)

Over two days, students at six venues investigated the issues of nuclear energy before submitting evidence to the official CoRWM consultation on nuclear waste.



## Physics = Humour

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[www.thegreatrelativityshow.com](http://www.thegreatrelativityshow.com) won the award for the most humorous entry in the Pirelli Relativity Challenge to create an interactive, multimedia explanation of special relativity.

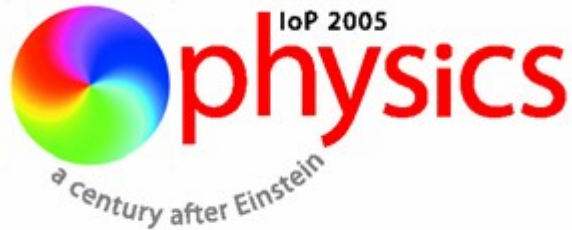
## Physics = Beauty

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Visualise – the beauty of science was a celebration of Einstein Year which highlighted the spectacular nature of physics.



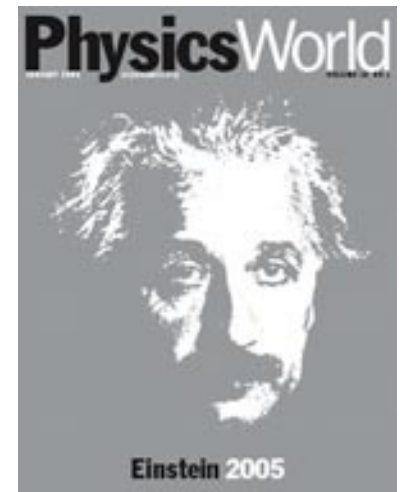
## Physics = Physicists celebrating physics



The Physics – A Century After Einstein conference featured presentations on emerging physics that cut across traditional disciplines and attracted 650 attendees.

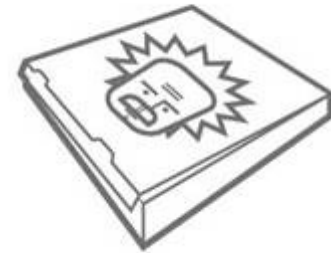
To celebrate Einstein's birthday a concert starring internationally acclaimed musicians Jack Liebeck and Piers Lane was held at the Institute.

Special issues of journals including Physics World, Nature and Metrologia were produced. Articles explored how the links between Einstein's work and contemporary physics.

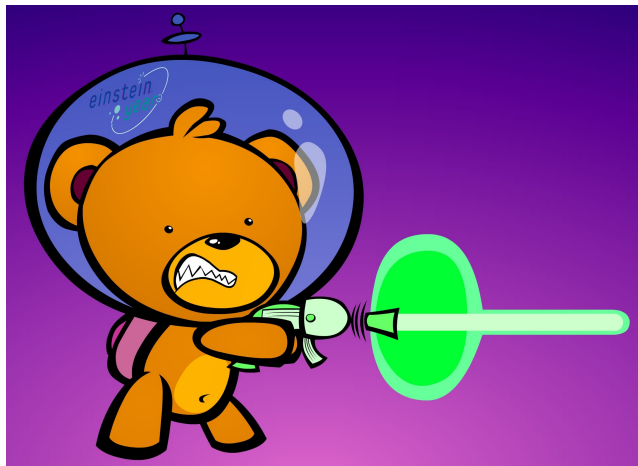


Physics = [www.einsteinyear.org](http://www.einsteinyear.org)

All activities throughout the year were supported by resources on [www.einsteinyear.org](http://www.einsteinyear.org) including the Physics to Go pack of 'tricks', evaluation packs, funding information, games and links to feed aroused curiosity.



physics to go



Details of more Einstein Year activities can be found at:

[www.einsteinyear.org/eyinpictures](http://www.einsteinyear.org/eyinpictures)

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## Einstein Year = Legacy

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- **Einstein Year leaves a valuable legacy**
  - Kick-started physics outreach activities
  - Established a core infrastructure of resources and networks
  - Evaluation will be invaluable in shaping future activities
  - Long-term commitment to outreach activities
  
- **Outreach & engagement now form a core part of Institute strategy**
  - Inspiring the next generation
  - Engaging members
  - Promoting the benefits of physics
  - Communicating physics

## Einstein Year = Physics in Society

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- **Coherent ongoing programme encompassing:**
  - Outreach activities for young people focussing on widening participation
  - Engagement activities with adults focussing on enabling participation in debates
  - Practical and financial support for physicists
  
- **Continued use of different delivery mechanisms**
  - Blogs and interactive games
  - Debates and discussions
  - Viral marketing
  - Appropriate media for audience
  - Non-traditional venues and audiences

## Physics in Society

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