Appendix 4: Outreach Activities

1 Oct 2008 - 30 Sep 2009

[http://www.physics.ox.ac.uk/univnet/universenet_outreach.htm]

Public talks:

CERN, Geneva, Switzerland, September 2009 Julien Lesgourgues and Pierre Binetruy organised a public meeting on *"Cosmology and the LHC"*.

Royal Society Summer Science Exhibition, London, UK, July 2009 Roberto Trotta exhibited at this event.

Oxford University Summer School for Adults, 11-18 July 2009 Roberto Trotta gave a lecture entitled "*The Big Bang - the Facts, the Science, and some Fiction*".

Lancaster University, UK, April 2009, 17 June 2009 Rose Lerner gave a talk for A-level physics students titled "Supernovae: Shedding light on the mysteries of the Universe".

Imperial College, London, UK, June 2009 Roberto Trotta lectured at the *"Science for Fiction Workshop"* for writers.

Bialystok, Poland, June 2009 Marek Demianski gave a lecture on "*Learning about the Universe*" for secondary school pupils.

Daresbury Laboratory, Warrington, UK, 15 May 2009 Roberto Trotta gave a lecture entitled "*Does the Universe need Mankind*?"

Kassel High School, Germany, May 2009 Roberto Trotta gave two lectures entitled "The visible Universe" and "The invisible Universe".

Institut for Advanced Studies, **Valdivai, Chile**, April 2009 Marek Demianski gave a lecture titled *"The Dark side of the Universe"*.

XIII Ciclo de Conferencias Humanidades, Ingenieria y Arquitectura, Madrid, Spain, 11 March 2009 Carlos Munoz gave a talk titled *"What is the Universe made of?"*

Green Templeton College, Oxford, UK, 3 March 2009 Subir Sarkar gave an International Year of Astronomy Lecture on "<u>Seeing the Edge of the Universe</u>".

Association of Science Students, Siglio XXI, Univ. Autonoma Madrid, Spain, 18 February 2009 Carlos Munoz gave a talk titled "What is the Universe made of?"

National Science Days, Helsinki, Finland, 7-8 January 2009 Kari Enqvist gave two talks at this major event that takes place every alternate year with total attendance of over 10,000 people.

Homi Bhabha Centre for Science Education, Mumbai, India, 22 December 2008 Subir Sarkar gave a lecture at the InfoSys International Physics Olympiad Awards.

Red de Arte Joven de la Comunidad Autonoma de Madrid, Spain, 24 November2008

David Cerdeno gave a talk titled *"En busca del bos' on de Higgs y otros misterios del Universo"* for a general audience at the Cafe el Despertar.

Politechnika Warszawska, Poland, 21 November 2008

Zygmunt Lalak and Bohdan Grzadkowski gave public talks on "LHC - How does it work?" at this event and exhibition.

Stockholm University, Sweden, 7-8 October 2008

Michael Gustafsson (ER at INFN) gave a public lecture on *"Universums mörka hemlighe"* as a part of the annual 'Forskardagarna'.

Williams College, USA, October 2008 Marek Demianski gave a lecture on "The Planck Mission".

Popular articles:

<u>Scintillations: the journal of IRFU</u> . <u>No. 79</u>, June 2009 Article by Chiara Caprini on *"L'espace et le temps en cosmologie"*.

Eleftherotypia (Ελευθεροτυπία) - "Evolution, a cosmic perspective", 16 April 2009 An article by Gerasimos Rigopoulos (ER at Helsinki) on the double celebration of 2009 as the International Year of Astronomy as well as Darwin Year appeared in this Athens Newspaper.

<u>"Is dark energy getting weaker?</u>" **New Scientist**, 11 April 2009, by Rachel Courtland. Featuring a paper (arXiv:0903.5141) by Arman Shafieloo (ER at Oxford) which examines a newly released catalogue of supernova explosions, including a number of relatively recent blasts nearby.

Les Dossiers de la Recherche - "<u>Neutrinos: temoins invisibles du Big Bang</u>", May 2009 Article by Julien Lesgourgues in a special issue.

m i +d – "<u>Imperfect symmetries and broken symmetries</u>", November 2008. Article by , Alberto Casas about the 2008 Nobel Prizes in Physics

Ciel et Espace, France, October 2008 *"Dark Matter: the elixir of long life for stars"* by Fabio Locco.

Sky & Telescope "Dark Stars" by Fabio Locco.

Clefs du CEA "Theory of Dark Matter" by Marco Cirelli and C. Bonvin.

El Pais – *"The asymmetries of Nature"*, , October 2008 Article about 2008 Nobel Prize Awards in Physics by Belen Gavela.

The Australian – 'Particle surge lights up dark matter' features the work of Marco Cirelli, September 2008.

The Times Online – 'Pamela the space smartypants thinks she's found dark matter' features the work of Marco Cirelli, September 2008.

Blogosphere:

Dmitry Podolsky maintains a popular physics blog: <u>www.nonequilibrium.net</u> which currently belongs to top 200000 list of the internet. The regular readership includes more than 400 postdoctoral researchers, undergraduate and graduate students.

Dmitry Podolsky also publishes Twitter feed <u>http://www.twitter.com/dpodolsky</u>, mainly devoted to discussion of recent news in theoretical physics. The feed is currently the 4th most popular feed in Finland with an audience exceeding 3000.

Interviews:

Oxford Science Blog - <u>"What did PAMELA see?</u>", 25 August 2009 Philipp Mertsch (ESR) and Subir Sarkar were interviewed about <u>their paper in Physical Review</u> <u>Letters</u> which proposes a test to distinguish between astrophysical and new physics models.

Plus Magazine - <u>"Lambda marks the spot — the biggest problem in theoretical physics"</u> Subir Sarkar was interviewed by Rachel Thomas from the Cambridge based `Millenium Mathematics Project' for this article in June 2009.

Scientific American interviewed Marco Cirelli for their article "<u>Does Dark Matter Encircle Earth?</u>", January 2009.

ScienceNews (USA) interviewed Marco Cirelli in their article "<u>PAMELA may have spotted the dark</u> <u>stuff</u>", September 2008.

Cosmos Magazine interviewed Marco Cirelli in their article "<u>Are scientists about to explain dark</u> <u>matter?</u>", September 2008.

Nature interviewed Marco Cirelli for their article "<u>Physicists aflutter about data photographed at</u> <u>conference</u>", September 2008

Performances:

A physics show performed by students for kids: From mechanics to elementary particle physics

Herbi Dreiner, ePrint: physics/0701344

As described in this article, a fascinating set of physics demonstrations for children have been put together by 2nd year undergraduates at Bonn University under Prof Dreiner's guidance. These have proved to be a huge success with the public. Every year a new two-hour show is presented, with six performances in a full (550 seat) auditorium. Several trailers can be seen on <u>YouTube</u> (e.g. http://www.youtube.com/watch?v=vtj6Th6wb8g). Herbi Dreiner, together with Michael Kortmann, was awarded the "High Energy Particle Physics Outreach Award" of the European Physical Society in July 2009 for this show.

Subir Sarkar participated in a <u>public debate on "*The Fate of the Universe: Does dark energy*</u> <u>exist?"</u> at Imperial College, London, 22 Jul 2009

Books:

El LHC y la frontera de la Física

By Alberto Casas (Catarata & CSIC Editors ISBN 978-84-00-08819-4. 136 pp.)