



## Report of WYP2005 activities in Belgium

Brussels, January 20, 2006

### Summary of the activities

More than 20 activities per month were organized everywhere in Belgium by Belgian Universities, scientific institutions and also some public organizations. The calendar of the activities organized in Belgium during the year 2005 is described on the website [www.wyp2005.be](http://www.wyp2005.be).

Please find here a list of the organizers of WYP2005 activities in Belgium and the main activities they organized.

#### Universities and scientific institutions :

- **FUNDP (Facultés Universitaires Notre-Dame de la Paix of Namur)** organized large audience **evenings on physics** and physicists that draw big changes in the description of the universe and/or gave rise to important technology advances. They presented also the **exhibition** entitled "The century of Albert Einstein" in the building of the Science department. Students in Physics of FUNDP presented their experiments in an exhibition during the Printemps des sciences. **Open days** were also organized. The large audience evenings (especially those about "La construction des pyramides ou quand la physique se mêle d'archéologie" and "Nanophysique contre le cancer" were very successful with more than 400 participants. The exhibition about Einstein attracted a little bit less than 100 visitors per day, which corresponds to what was expected.

- **KULeuven (Katholieke Universiteit Leuven)** organized an **exhibition on "Einstein 1905-2005"** in the **science library of KUL (Campus Arenberg, Heverlee)**, during **6 weeks**. This exhibition was repeated in **Kortrijk (K.U.Leuven campus)**. At the time of the exhibition, lectures and cultural activities were organized to promote public awareness. **KULeuven** organized also large public activities in **Leuven** like "a tourist science walk" collaboration with the tourism office of Leuven. They organized also a LERU-kids-university in the framework of the **European science week** for 10-12 year old kids (100 students) in **Fall 2005 in Leuven**.

- **UMH (Université Mons-Hainaut)** organized **during the year Conferences on Physics and Astronomy** and **seminars on Physics history** entitled "From Galilée to Einstein". In **March**, a **Foucault pendule** was installed in the **Cathédrale Ste Waudru (Mons)** with an exhibition on Earth rotation. An **exhibition "Histoire d'ondes"** was also organized with experiments on waves and an exhibition about Jules Vernes at the Mundaneum. In the

castle of Seneffe, a week of scientific activities was organized: Physics and astronomy: Europe and Physics at the XVIIIe century and today.

- **UGent (University of Gent)** organized Saturdays of Physics with activities for student and general public. [Some Saturday mornings \(spread during the year from February to autumn\)](#), lectures were given, combined with demonstration from the past:

[12-3- 2005 Physics show](#)

[2-4-2005 Quantum mechanics](#)

[23-4- 2005 Medical Physics](#)

[21-5- 2005 Physics of bicycles](#)

[8-10- 2005 Astronautics and cosmology](#)

[29-10- 2005 Physics and economy](#)

[19-11- 2005 Energy](#)

[10-12- 2005 Relativity theory, from quarks to cosmos](#)

The [exhibition "Einstein in the low-countries"](#) at [het Museum voor de Geschiedenis van de Wetenschappen van de Universiteit Gent](#) showed objects and documents in relation with Einstein in the Netherlands and in Belgium

- **ULB (Université Libre de Bruxelles) and VUB (Vrije Universiteit Brussels)** organized a Solvay Conference in December with one day open to the large public with prestigious guests such as David Gross, Nobel Prize in Physics 2004. A big Einstein exhibition in Tour and Taxi in Brussels was launched in December and is still presented up to May 2006. Large public lectures and an exhibition at the Experimentarium were organized at the Centre de culture scientifique in Couillet.

- **ULg (Université de Liège)** organized on [18 January 2005](#) a special day with conferences and animations about the [solar system](#). A [calendar World Year of Physics](#) was also edited. From [4 to 7 July 2005](#), an international [conference on Astronomy](#) was organized with several activities for astronomers, the large public and journalists. [In October-November 2005](#), an exhibition was organized: "[Les sciences: c'est magique](#)". ["Pendule de Foucault"](#) was installed in the Church St André in Liège with an exhibition for schools and the large public. A [contest](#) was organized during the "Printemps des sciences". ULg proposed [practical works](#) to the students of 5 and 6<sup>th</sup> secondary school on [Wednesday afternoons](#) in the framework of "Scientifiques en herbe". Summer schools for children 5-8 year old were also organized by Réjouissances.

- **UA, (University of Antwerp)** organized the "[Bridge project](#)" ("brugproject"): school students of 4, 5 or 6<sup>th</sup> secondary (group of 10 on reservation) came to the RUCA laboratories on Wednesday afternoon or Saturday morning, to work on all kinds of fascinating physics experiments.

- **LUC (Limburgs University Center, Hasselt)**: on November 9, the Physics Department of LUC (in [Diepenbeek](#)) organized the natural sciences [contest 'Superteam'](#). Superteam was a meeting of 45 teams of secondary school students from different institutes competing for the honorary title of Superteam. More than 400 students participated.

- **UCL (Université Catholique de Louvain)** organized **workshops and open days** on climate changes for the large public and specific activities for primary and secondary schools. A series of conferences were also organized at the Georges Lemaître House in Charleroi, which have met with great and very great success, meaning a total of some 200-250 high school students attended these afternoon conferences, and some 250 publ attended the general public conference dedicated to Georges Lemaître. At UCL the WY event was closed with the formal dedication of an Auditoire Georges Lemaître and a series of banners celebrating his Big Bang contributions, on December 20th. These shall be followed up by the realization of the "Espace Lemaître" (exhibition) at the Faculty of Sciences in the course of 2006.

- **IASB-BIRA (Belgian Institute for Space Aeronomy), IRM-KMI (Royal Meteorolog Institute), ORB-KMS (Royal Observatory of Belgium) and Planetarium** organized a **Space expo starting in May 2005** in the **Planetarium of Brussels** on the occasion of the 175<sup>th</sup> anniversary of Belgium. Open days in the three scientific institutes of Uccle were also organized on 17 and 18 September. Around 10.000 visitors came during this week end.

- **EPOG (European Particle Physics Outreach Group)** organized **Masterclasses for high school kids** in particle physics with video link with different classes on an international scale. Participating Belgian Universities: **UA, VUB, ULB, UMH, UCL**, from **March 7 to March 18, 2005**. The Masterclasses have been a great success, so much so that they will be repeated all over Europe once again in March 2006.

- **SCK-CEN (Belgian Nuclear Research Centrum)** in Mol organized a contest for schools (5 and 6 secondary) for the best website on the theme: "E=mc<sup>2</sup>: Impact on the society". The prize is 1000 euro for the best one. Only 4 schools participated.

## Schools

- **L'ISIB (Institut Supérieur Industriel de Bruxelles)** proposed activities (**labo, talks and experiments**) for secondary school students and teachers on the theme "La physique, et s'applique".

- **VeLeWe (Vereniging Leraars Wetenschappen) and ABPCP (Association Belge des Professeurs de Physique et Chimie)** presented the calendar of WYP activities in their journals and organized a meeting for school professors. They also participated in the Science on Stage Festival in the Netherlands.

- **Athénée Léon Lepage** (Brussels) organized an exhibition "Le Vide et l'Infini".

## Associations

- **BPS (Belgian Physical Society)** diffused the information about the activities on the website and in Physicalia Info. It published also a special Einstein issue in Physicalia Magazine. It organized a press conference for the launch of the World Year of Physics. The scientific meeting of the BPS was merged with that of the Société Française de Physique in 2005 on the WYP occasion.

- **Technopolis** (in Mechelen) organized a science feast, presented during the year nice exhibitions, physical experiences, shows and demonstrations for the large public and organized an electronic rally on classical physics. KULeuven worked with Technopolis for stands and demonstrations about modern physics. Four conferences were also organized in Technopolis about Einstein 1905-2005, with Davidsfonds. A truck with physical experiments called EXPERION was open in 2005.

- The **Comité National de Physique-Nationaal Comité voor Natuurkunde** organized a conference on future energy, ITER and fusion on Saturday March 5, 2005 at the Academy Palace in Brussels, for more than 150 participants.

- **Scientastic** in Brussels (next to Grand Place) proposed to explore 90 funny experiments on physics and illusions. Einstein was honored in 2005 with a specific experiment to understand relativity and the possibility to have one's picture taken with Albert Einstein.

- **The Euro Space Center** (Transinne) organized the exhibition "A New Space Odyssey to follow the evolution of space exploration from the very beginning to future projects.

- **La Société Royale Belge d'Astronomie et de Météorologie et de Physique du Globe (SRBA)** organized lectures on geo and astrophysics and a contest for young students with astronomy instruments for prizes.

- **Les Jeunesses Scientifiques** and **Jeugd, Cultuur en Fysica** organized from 28 to 3 April in Heysel Palace in Brussels an Expo Science with a scientific contest for school students (French speaking). The winners of these contests participated to the European Union contest for young scientists (EUCYS) held in Moscow in 2005.

## Structures and funding

For the WYP2005, a national working group has been created. The members of the working group were representative persons of the Belgian Universities and other Associations participating in the organization of WYP events. The coordinator was Viviane Pierrard, President of the Belgian Physical Society. A preliminary meeting has been organized in February 2004 to inform universities and associations about the WYP2005 and to prepare and describe the activities.

The funding for the activities was directly associated to the organizing institutions. Some asked for additional private sponsors. The most important budget is certainly for the Einstein exhibition in Brussels organized by ULB and VUB. Five Belgian institutions received also funding from the European Commission for the organization of their activities.

### Impact of the WYP

Most of the activities were very successful thanks to the local advertisement. The media were contacted to inform them about the World Year of Physics and the activities

organized on this occasion. Some important Belgian radios (La Première, Contact...) and large public newspapers (Le Soir, La Libre Belgique, Knack, Vers l'Avenir, Het Belang van Limburg...) talked about the World Year of Physics and the events organized on this occasion. The WYP2005 gave a nice opportunity to discuss physics in media reaching a large public not often exposed to the possibility. Belgian scientific journals were also interested and wrote papers about the WYP (Athena, Ciel et Terre, EOS, Science Connection). Generally, Einstein interested them a lot. The activities were more announced in local newspapers. The Belgian public television (RTBF1) was interested in some activities (Titan exploration, Einstein exhibition) and made TV reports in the television news, the most watched television program. The Einstein exhibition in Brussels is co-sponsored by the media so that it benefits of a very good promotion at the Belgian Television and in newspapers. Besides the national website, almost all the universities created a specific link and website to describe their activities. Nevertheless, the impact remained mainly limited to the public interested in sciences. The very large public was probably not sufficiently reached. Sometimes, it was not sufficiently emphasized that the activities were organized in the framework of the World Year of Physics. The different languages used in Belgium were also sometimes a problem to create big national events. The impact of the World Year of Physics and the organized activities were quite different following the different regions. But, many people participated in the activities and the organizers were generally satisfied. Many activities have been organized especially for the young public (mainly secondary school students), but it is not yet clear if it will have an impact on student enrolling in scientific matters. Some activities were so successful that they will be repeated in the future, like masterclasses in particle physics and open days for practical works in some universities. A very positive impact of the WYP is in the contact with schools, the better communication about physics, and the launch of activities which could easily be repeated now for a series of recurrent years aimed first to high schools and their teachers. Some big activities continue also in 2006 like the exhibition "Einstein" in Brussels (up to May), the other one in Ghent (up to February) and the exhibition "Jules Verne" in Morselt (up to March).

Viviane Pierrard  
WYP2005 coordinator for Belgium