

SLIDESHOW

Impresiones from Granada



Linear collider researchers meet for five days this week in the grand Palacio de Exposiciones y Congresos in Granada, Spain for the second [International Workshop on Future Linear Colliders](#). Attendees discuss the latest accelerator and detector R&D, review the work needed to complete milestone reports for the projects and discuss research in a post-TDR era. The vibrant social programme included a visit to the grand, ornate Alhambra palace. [View the slideshow](#).

AROUND THE WORLD

Industry meets accelerator scientists in Spain for IPAC11

by Perrine Royole-Degieux



The worldwide accelerator community gathered at San Sebastián, Spain for the second International Particle Accelerator Conference. Besides being the annual *rendez-vous* of accelerator scientists and engineers from around the world, it is also a very good opportunity for them to meet with the industry.

DIRECTOR'S CORNER

The home stretch in fulfilling the Global Design Effort mandate

by Kaoru Yokoya



This week, linear collider scientists converge on Granada, Spain for the second International Workshop on Future Linear Colliders. While at LCWS11, the GDE members are busy planning the final details for the *Technical Design Report*.

IN THE NEWS

from **New Scientist**

28 September 2011

[Fermilab stops hunting Higgs starts neutrino quest](#)

Once king the Tevatron is due to shut down on 30 September as it can no longer compete with the energies achieved by the Large Hadron Collider (LHC) at CERN near Geneva Switzerland. "It is being superseded" admits Fermilab director Pier Oddone.

from **europapress.es**

26 September 2011

[El director de la CERN insiste en que el estudio de los neutrinos debe ser verificado](#)

El director de la Organización Europea para la Investigación Nuclear (CERN) Rolf Heuer ha dicho este lunes que no cree que Albert Einstein se equivocara al enunciar su Teoría de la Relatividad y ha insistido en que aún debe verificarse el estudio que ha descubierto partículas subatómicas llamadas neutrinos que son más rápidas que la velocidad de la luz.

from **abc.es**

26 September 2011

[La verdad sobre los neutrinos puede tardar un año](#)

Rolf Heuer director general del CERN dice que la confirmación de que existen partículas más rápidas que la luz llegará en 2012 aunque no cree "que Einstein se equivocara"

from **CERN Courier**

23 September 2011

[Long live the Tevatron](#)

A quarter-century of experimentation is coming to a close at Fermilab's Tevatron collider a pioneering instrument that advanced the frontiers of accelerator science and particle physics alike setting the stage for the LHC at CERN.

from **Wired**

23 September 2011

[Scientists Question Faster-Than-Light Neutrinos](#)

Figuring out whether anything is traveling beyond the speed of light requires incredibly accurate measurements of time and distance and the OPERA team has made an extensive effort to make its work as accurate as possible.

from **The Guardian**

23 September 2011

[Physicists urge caution over apparent speed of light violation](#)

Scientists react with disbelief and call for repeat experiments after results suggest particles can travel faster than light.

from **El Pais**

09 September 2011

["Buscamos entender por qué existimos de alguna manera"](#)

Como físico de aceleradores participó en el diseño construcción y puesta a punto el año pasado del acelerador de partículas sincrotrón Alba de Barcelona.

from **Daily Yomiuri Online**

8 September 2011

[Japan in full swing on big bang bid](#)

Japan's bid to host the International Linear Collider (ILC) a huge scientific undertaking aimed at reproducing the conditions and matter created immediately after the big bang is in full swing.

CALENDAR

UPCOMING EVENTS

[Linear Collider Workshop 2011 \(LCWS11\)](#)

Granada, Spain

26- 30 September 2011

[ICFA Beam Dynamics Mini Workshop on Low Emittance Rings 2011](#)

Heraklion, Greece

03- 05 October 2011

[13th International Conference On Accelerator And Large Experimental Physics Control Systems \(ICALEPCS 2011\)](#)

Grenoble, France

10- 14 October 2011

[ILC-HiGrade 4th Scientific Workshop](#)

LAL, Orsay, France

12 October 2011

[50th ICFA Advanced Beam Dynamics Workshop On Energy Recovery Linacs \(ERL 2011\)](#)

KEK, Tsukuba, Japan

16- 21 October 2011

[2011 Low-Level Radio Frequency Workshop \(LLRF 2011\)](#)

DESY, Hamburg, Germany

17- 20 October 2011

[2011 IEEE Nuclear Science Symposium and Medical Imaging Conference](#)

Valencia, Spain

23- 29 October 2011

[ILC Source/RTML/BDS+MDI Technical Baseline Review](#)

DESY, Hamburg, Germany

24- 27 October 2011

UPCOMING SCHOOLS

[CERN Accelerator School: Course on Accelerator Physics](#)

University of Chios, Chios, Greece

18- 30 September 2011

[View complete calendar](#)

PREPRINTS

ILC REPORT

[2011-032](#)

Report on the Second Workshop on Linac Operations with Long Bunch-trains

ARXIV PREPRINTS

[1109.4847](#)

Testing Little Higgs Mechanism at Future Colliders

SLIDESHOW

Impresiones from Granada

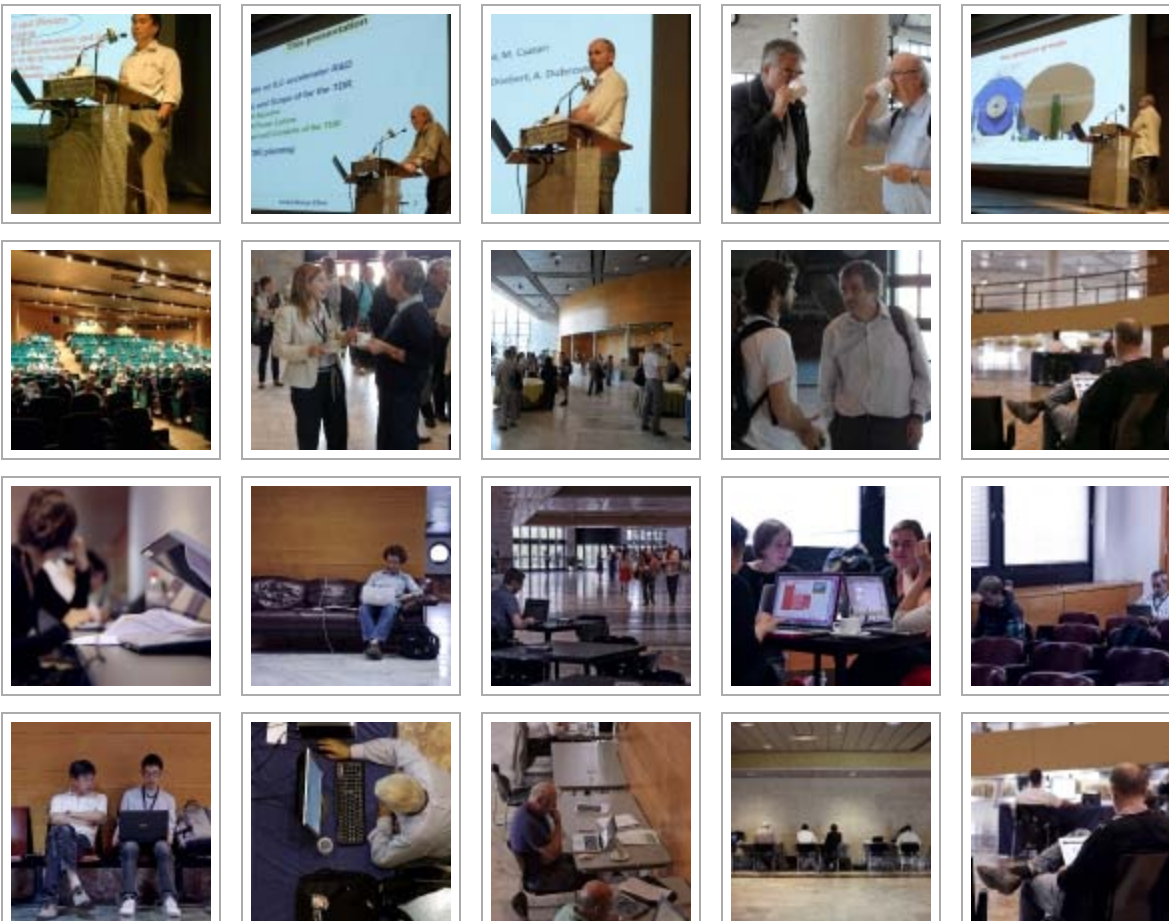
29 September 2011

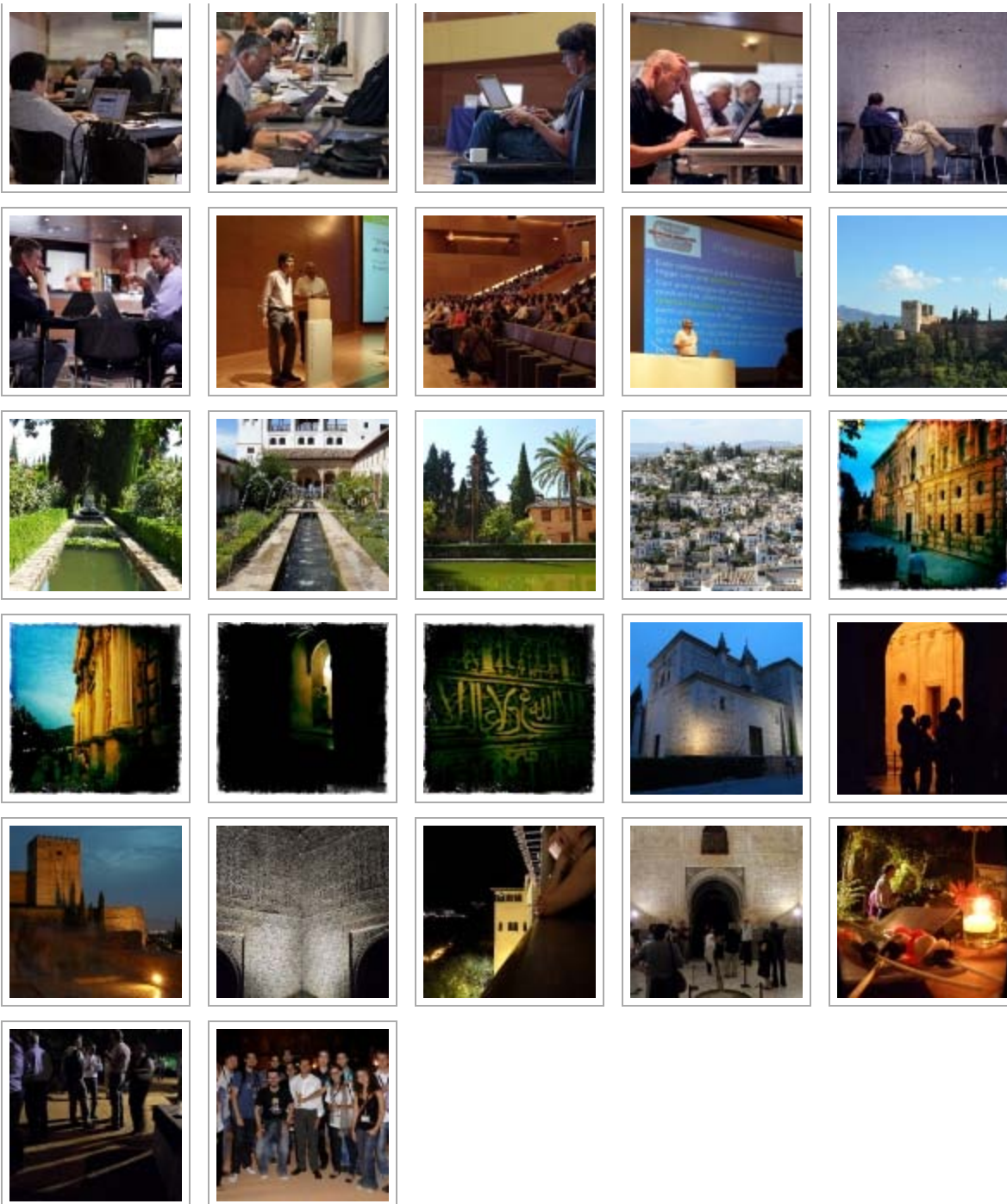
Images: Perrine Royole-Degieux, Jesús Díaz (computer series) and Monika Illenseer (vintage series)

Linear collider researchers meet for five days this week in the grand Palacio de Exposiciones y Congresos in Granada, Spain for the second International Workshop on Future Linear Colliders. Though a few local newspaper headlines would have readers believe that LCWS11 scientists debated the true velocity of muon neutrinos, conference attendees were far more interested in the particulars of the next precision particle collider.

The conference organisers and its host, Universidad de Granada, also put together a vibrant social programme that included a public lecture by LAL Orsay's François Richard titled, "Viaje al corazón de la materia," and a visit to the grand, ornate Alhambra palace.

[Show as slideshow]





ALHAMBRA | GRANADA | LCWS | LCWS11 | SPAIN

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AROUND THE WORLD

Industry meets accelerator scientists in Spain for IPAC11

Perrine Royole-Degieux | 29 September 2011



Speakers of the Special Session Spanish Science Industry at IPAC11. From left to right : Claudio Isnardi. INDRA Project Manager, Jorge Lomba. Head of the Industry for Science and Space Department at CDTI, Juan Tomás Hernani. General Secretary of Innovation. Spanish Ministry of Science and Innovation, Miguel Angel Carrera. President of INEUSTAR, Julio Lucas, ELYTT ENERGY Technical Director, Miguel Mendez SEVEN SOLUTIONS Project Manager, Julio Galipienzo. AVS –Added Value Solutions Project Manager. Image: CDTI

This September is Spanish time for the ILC. Three weeks before the linear collider workshop in Granada, the worldwide accelerator community gathered at San Sebastián for the second International Particle Accelerator Conference. The main purpose of what is becoming the annual *rendez-vous* of the world's accelerator scientists and engineers is for them to meet and exchange ideas about particle accelerator projects. But it is also a very good opportunity for them to meet with the industry.

Particle accelerators conferences used to be organised at the regional level. Since last year's conference in Kyoto, Japan, it is now an international appointment for the whole community – about 1200 participants joined this second edition. Among them, more than a hundred were members of industry. Industrial participants followed most of the scientific sessions, eager to know the new areas of accelerator R&D and projects, to understand the needs of scientists and to discover new challenges to take up. Besides purely scientific talks, some talks were more focused on accelerator applications, technology transfer and industrial relations. A dedicated special session, open to all participants, covered Spanish industrial R&D. During the session, some of the 18 technical contributions to the book

Spanish Science Industry – Your Reliable Partner were presented by highly specialised firms.

"Industries were very interested to participate, and actually, more than forty managers from Spanish companies attended the conference," said Paloma Dorado, liaison for the Spanish accelerator industry at the Centre for the Development of Industrial Technology (CDTI), a Spanish public organisation under the Ministry of Science and Innovation. Her role during IPAC11 was to promote the participation of Spanish industry in accelerator projects and to organise the special session on Spanish industrial R&D. "Industrials understood that this conference was a unique occasion to meet all the people in charge of designing the accelerators to come."

A dedicated industry exhibition was installed during IPAC11, where more than 70 companies – including nine Spanish ones – presented their areas of expertise and what they could offer to the scientific projects. "Well situated in the coffee break area, the exhibition was a great success for both scientists and industrials, who had many opportunities to discuss and exchange information," said Dorado.

For industrials, these encounters are motivating. "You have to understand that for them it's more than preparing responses to invitation to tender and getting new contracts," said Dorado, who as the Industrial Liaison Officer (ILO) for CERN in Spain, knows very well the interest of industry for particle physics. "Research projects are new challenges for them and very good occasions to

push their own boundaries. Each new project needs dedicated designs.” A few industries even participated in the traditional scientific poster sessions to present their latest developments.

On the scientists' side, this encounter was not only about meeting new faces. Marc Ross, project manager for the ILC Global Design Effort, enjoyed meeting in the same place many industry representatives he already knew and have been working with for some time. “Our discussions were very useful and I appreciated that the venue made possible a relaxed, extended interaction which we would normally never be able to have,” said Ross.

On the organisers' side, Francis Pérez, chair of the local organising committee, is very satisfied. “The number of scientific and industry delegates has surpassed our expectations. We made the effort, which we believe delegates appreciated, to make their time in San Sebastián enjoyable, not only at the venue but also with many social events. We think that helped to create a personal link between the scientific projects and industry, which in the end is very important for the success of both,” said Pérez.

The next IPAC meeting will take place on May 2012 in New Orleans, USA.

[INDUSTRY](#) | [IPAC11](#) | [SPAIN](#)

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Opening of IPAC2011 conference. Image: Jonathan Martin

DIRECTOR'S CORNER

The home stretch in fulfilling the Global Design Effort mandate

Kaoru Yokoya | 29 September 2011



Global Design Effort executive committee during LCWS11 workshop in Granada, Spain.

This week, linear collider scientists converge on Granada, Spain for the second [International Workshop on Future Linear Colliders](#). The conference is going well, with over 350 attendees discussing the future of particle physics, particularly with relation to how LHC results will guide the design of a next-generation collider. It is with this in the back of our minds that many of us in the Global Design Effort are spending time at this conference planning the final details for the *Technical Design Report*.

The delivery of the *Technical Design Report*, or TDR, at the end of 2012 represents the completion of the GDE mandate, a demonstration that the machine is ready to be built.

At our last linear collider workshop in March in Eugene, US, we came to agreement on many broader project decisions. Here in Granada, we are hammering out the finer details of the programme. Accordingly, ILC groups have been working hard to make accelerator systems more reliable with rigorous tests and thorough analyses.

But the GDE's choices are not limited to technological decisions related to the machine. We must also make decisions related to industrialisation and costing. As a scientist, these kinds of tasks are not the most exciting, but are absolutely necessary to realise the ILC.

Industrialisation and costing are perhaps the most challenging aspects of such a large project. What we learn from industrial companies informs the costing. We do our best to involve multiple companies in the work of manufacturing and improving cavities and producing cryomodules. Because this work is distributed to several companies, it is up to the laboratories to assure that the companies' output meets a minimum standard of quality, one that meets ILC specifications. We will continue this work of quality assurance up to the time of and beyond the publication of the TDR.

Of course, as many people at this conference are saying, the future of accelerator physics depends on future LHC results. Like everyone else, we wait anxiously for the next big LHC discovery, but until then, we work hard to complete the final stretch of the GDE mandate.

[GDE](#) | [TDR](#)

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