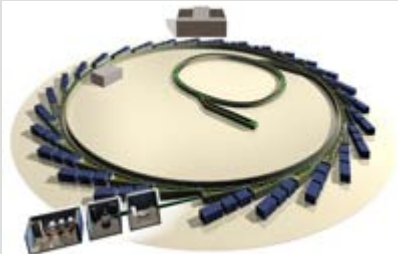


Around the World

Aiming low, shooting high
Experts from different fields get together to tackle a common problem: emittance



Light sources like Diamond in the UK currently hold the low-emittance record. Image: ©Diamond Light Source

Not all people who have the same goals use the same means to achieve them — just think of the two proposed electron-positron colliders ILC and CLIC. And not all people who use the same means also pursue the same goals. A [workshop](#) held in January at CERN in Geneva brought the two linear colliders and many of the world's light sources and B-factories together to discuss one common problem: how to make your beam as small and intense as possible to either produce more particle collisions or produce more brilliant light for your light source users, or in short: how to design or operate low-emittance rings.


[Read more...](#)

-- Barbara Warmbein

Calendar

Upcoming meetings, conferences, workshops

[ILD Workshop 2010](#)
 Paris, France
 27-30 January 2010

 [International Linear Collider Workshop 2010 \(LCWS10 and ILC10\)](#)
 Institute of High Energy Physics,
 Beijing, China
 26-30 March 2010

Feature Story

Successful beginning of S1 global at KEK



Four cavities from DESY and Fermilab brought out of the clean room on 25 January. The cavities shown are (from left to right) AES004, ACC011, Z108 and Z109 (Image: Nobu Toge)

Four superconducting accelerating cavities have been successfully assembled at KEK's Superconducting RF Test Facility (STF). From 14 to 22 January, the assembly team of technical staff from DESY and Fermilab visited KEK, and completed cavity-string assembly work in the STF cleanroom, making a wonderful start for [S1 global](#), a crucial system test towards realising the International Linear Collider.

[Read more...](#)

-- Rika Takahashi

In the News

From *Physics World*
 26 January 2010
Net widens for funding of arXiv
 Librarians at Cornell University want more external funding to support their popular arXiv preprint server because the running costs are now "beyond a single institution's resources".
[Read more...](#)

From *New York Times*
 25 January 2010
Physicists' Dreams and Worries in Era of the Big Collider
 A few dozen scientists got together in Los Angeles for the weekend recently to talk about their craziest hopes and dreams for the universe.
[Read more...](#)

Director's Corner

S1 global started moving
Today's issue features a Director's Corner from Kaoru Yokoya, Global Design Effort Asian Regional Director.



String assembly of DESY and Fermilab cavities for the S1 global experiment on Day 3: assembling the two DESY cavities, Z109 and Z108, with standard-length bellows. Image: Nobu Toge

S0, S1, and S2 — these are the "code names" for superconducting accelerating system R&D for the International Linear Collider. S0 is the programme to develop high-gradient superconducting cavities. Those cavities are the core element for ILC accelerator, but cavities only won't do the job. Other devices such as the couplers to send the microwave into the cavities, the tuners for precise frequency control, the vessel which is the container for the cavities to be cooled by liquid helium, the cryostat to house the whole cavity system, and the power generators, have to be developed as a system. This programme is called S1. S2 will follow S1, in which the accelerator unit with beam will be developed.
[Read more...](#)

-- Kaoru Yokoya

[Director's Corner Archive](#)

BlogLine

26 January - [Frank Simon](#)
[No better time...](#)

Upcoming school

[The US Particle Accelerator School sponsored by the UC Santa Cruz](#)
Santa Cruz, CA, USA
18-29 January 2010



= Collaboration-wide Meetings

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

[Follow all Quantum Diaries](#)

Announcements

Register for Beijing

Make sure you get all the paperwork for the meeting in Beijing done on time — read this NewsLine story for [more information](#).

arXiv preprints

[1001.4714](#)

Normal tau polarisation as a sensitive probe of CP violation in chargino decay

[1001.4467](#)

Electroweak corrections to hadronic event shapes