

**Research Director's Report**

**SiD moving forward**

This month's Research Director's Report was written by Jim Brau (University of Oregon) and Andy White (University of Texas at Arlington), who serve on the SiD Executive Committee and were co-organizers of the recent SiD workshop.



Participants in the Silicon Detector Collaboration Workshop met at the University of Oregon in Eugene last month to advance their work on the Detailed Baseline Design, to be published at the end 2012. They also discussed their contributions to the CLIC Conceptual Design Report, to be completed by August 2011. Image: Jim Brau

The SiD (Silicon Detector) Collaboration met in a [workshop at the University of Oregon](#) in Eugene from 15-17 November to review progress, discuss plans, and further organise its effort for the Detailed Baseline Design (DBD) report due at the end of 2012. The workshop also reviewed and discussed contributions to the CLIC Conceptual Design Report (CDR), which is now to be completed by August 2011. A significant effort from SiD has been directed to the CLIC CDR, which has been of real benefit to ILC SiD as well, and will strengthen the effort on the SiD DBD. [Read more...](#)

-- Jim Brau and Andy White for SiD

[Research Director's Report Archive](#)

**Calendar**

**Upcoming meetings, conferences, workshops**

[Second Baseline Assessment Workshop \(BAW-2\)](#)  
SLAC  
18-21 January 2011

**Upcoming schools**

[US Particle Accelerator School](#)

**Around the World**

**Getting a vision of tunnels**

Wilhelm Bialowons reports from the visit of the ILC civil facilities and siting group to the European XFEL and FLASH at DESY in Hamburg.



Inside the future European XFEL experimental hall.

Image: John Osborne

Early November, four members of the Global Design Effort Conventional Facilities and Siting group and two guests from Japanese industry visited DESY in Hamburg, Germany, for two days. They wanted to find out more about the current state of the European X-ray Free Electron Laser (XFEL) civil construction and to get information about other relevant projects like DESY's FLASH accelerator.

[Read more...](#)

-- Wilhelm Bialowons (DESY)

**Image of the Week**

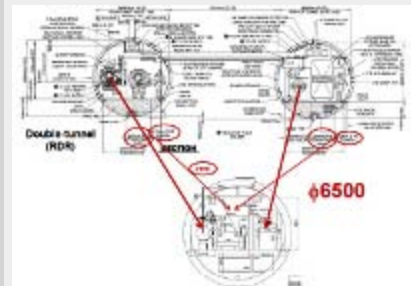
**A (CLIC) study in art**



These images are the result of a successful exercise in mutual benefit. Taking a break from working on the upcoming CLIC Conceptual Design Report, CERN's Hermann Schmickler gave a presentation about the future collider to art classes in the Chataigneriae International School in Switzerland. The students aged from

**Director's Corner**

**Evolving the ILC baseline: single main linac tunnel**



Converting the ILC reference design into a design having a single main linac tunnel

Two weeks ago I described the motivation and the process for [evolving the baseline for the technical design](#) we are undertaking over the next two years. That work will culminate in a *Technical Design Report* (TDR) at the end of 2012. Last week, I discussed the first of four proposed actions for "top-level change control" and I announced my decision to approve the [proposal for the main linac operating gradient](#). Today, I describe the second of the proposed change actions, which has been stated as follows: "We propose to change the main linac tunnel configuration to one with only a single, accelerator-enclosure tunnel, thereby eliminating the support equipment tunnel proposed in the Reference Design. We propose to develop and include in the baseline two novel High-Level RF power source and distribution schemes ("KCS" and "DRFS") that are better suited to a single-tunnel solution than the scheme proposed in the RDR. A fall-back to the RDR HLRF Technology can be adopted should the R&D on KCS or DRFS not be considered successful." I have considered and [approved](#) this baseline change, following the advice of the Change Evaluation Panel. [Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

**Announcements**

**NewsLine holiday schedule**

NewsLine is taking a break for two weeks. Our next issue will be on 6

[\(USPAS\)](#)

Old Dominion University, Hampton,  
Virginia, USA  
17-28 January 2011

[Excellence in Detectors and  
Instrumentation Technologies \(EDIT  
2011\)](#)

CERN, Geneva, Switzerland  
31 January - 10 February 2011

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

15 to 17 years then came up with their own vision of CLIC — the images shown here are just two out of 40 submitted drawings. All of them were recently exhibited at CERN and one will be used on the cover of the CLIC CDR.



### In the News

From *People's Daily*  
13 December 2010

#### **China's 1st deep underground lab now operational for dark matter**

China's first deep underground laboratory was formally put into service in Jinpin hydropower station in Sichuan Province on Dec. 12, which means China now possesses an independent cutting-edge underground scientific research and experimental platform in physics.  
[Read more...](#)

From *nature*  
10 December 2010

#### **LHC plans extra year for Higgs hunt**

Collider may run right through 2012 to find elusive particle.  
[Read more...](#)

From *Spiegel*  
10 December 2010

#### **"Science Slam"-Finale - Große Show mit Schlaumeiern**

Hier wird das Referat zum Event: Beim "Science Slam" wetteifern Studenten und Doktoranden darum, wer besonders amüsant über Exotisches sprechen kann - von Quantenwissenschaft bis zur Stringtheorie.  
[Read more...](#) (in German)

From *industrie.com*  
8 December 2010

#### **Pour la science : Philippe Lebrun Le mécanicien des particules.**

... Clic aura pour vocation d'étudier de près les phénomènes découverts au LHC. Tout comme le projet concurrent ILC (International linear collider), qui réunit lui-aussi un impressionnant panel international de scientifiques.  
[Read more...](#) (in French)

January. Happy holidays!

#### **ILC Memo**

[2010-004](#)

GDE Change Evaluation Panel - TLCC-2 – Decision Memo

[2010-003](#)

GDE Change Evaluation Panel - TLCC-1 – Decision Memo

#### **ILC Internal Document**

[2010-050](#)

BAW-1: ML Accelerator Gradient - Summary of Discussions and Proposal

#### **arXiv preprints**

[1012.2792](#)

Vertex Tracking at a Future Linear Collider

[1012.2367](#)

Precision Electroweak Measurements and Constraints on the Standard Model

[1012.1730](#)

Discrimination of SUSY breaking models using single-photon processes at future  $e^+e^-$  linear colliders

#### **ILC-HiGrade Report**

[2010-007](#)

2nd Sound as quench localisation tool