

CERN news

- CERN Medium Term Plan approved in June Council (LC budget line for 2014-2019)
 - From 2020 Energy Frontier budget line combining FCC and CLIC resources
 - Budget for 2015 approved last week (in line with June MTP)
- Reviewed CLIC WPs afterwards:
 - Module programme (shorter and longer term)
 - Spanish, Finnish and Norwegian contracts – UK contracts already foreseen in our planning earlier
 - ATF programme and its links to technical activities
 - Purchase options on 3rd klystron
 - Building 156
 - Scope of DB FE programme
 - XFEL Design Study contribution
 - etc
- Several changes was needed but a revised plan is now available

Project Meetings

- Last “normal” one in June
- September 26.9 – cancelled due to loss of BE auditorium and near overlap with Belgrade LCWS
- October 9.10 – special CLIC session during LCWS 2014 in Belgrade

09:00	Project Meeting Introduction	Steinar STAPNES
	Pacific (150), Crowne Plaza	09:00 - 09:15
	X-band and XFEL beam dynamics issues	Dr. Andrea LATINA
	Pacific (150), Crowne Plaza	09:15 - 09:40
	XbFEL proposal news, Trieste Upgrade	Gerardo D'AURIA
	Pacific (150), Crowne Plaza	09:40 - 10:05
10:00	CLIC High-Gradient development update	Walter WUENSCH
	Pacific (150), Crowne Plaza	10:05 - 10:30
	Coffee break	
	Lobby, Crowne Plaza	10:30 - 11:00
11:00	Status of High-power X-band RF system at CERN	Syratchev IGOR
	Pacific (150), Crowne Plaza	11:00 - 11:20
	Low Breakdown rate operation of a high gradient accelerating structure under high beam loading conditions	Luis NAVARRO
	X-band structure production - Status	Anastasiya SOLODKO
	Pacific (150), Crowne Plaza	11:40 - 12:00
12:00	X-band structure production - Development	Carlo ROSSI
	Pacific (150), Crowne Plaza	12:00 - 12:20
	High-efficiency klystron development	Syratchev IGOR
13:00		
		Lunch
		Restaurants are available at the conference site and nearby. Participants take care of their own lunch.
14:00	The drive beam front-end in the CTF3 building	Frank TECKER
	Pacific (150), Crowne Plaza	14:00 - 14:30
	Perspectives for a CALIFES test facility beyond 2016	Roberto CORSINI
	Pacific (150), Crowne Plaza	14:30 - 15:00
15:00	Instrumentation tests in a future CALIFES	Stefano MAZZONI
	Pacific (150), Crowne Plaza	15:00 - 15:30
	Coffee break	
	Lobby, Crowne Plaza	15:30 - 16:00
16:00	The CLARA Project - Rationale and experimental program of an XFEL test facility	Prof. Jim CLARKE
	Pacific (150), Crowne Plaza	16:00 - 16:30
	Goals, requirements and perspectives for an XFEL X-band test facility	
	Pacific (150), Crowne Plaza	16:30 - 17:00
17:00	The AWAKE project at CERN and its connections to CTF3	Edda GSCHWENDTNER
	Pacific (150), Crowne Plaza	17:00 - 17:30
	Discussion	
	Pacific (150), Crowne Plaza	17:30 - 18:00



CLIC summary Belgrade



The goals and plans for 2013-19 are well defined for CLIC, focusing on the high energy frontier capabilities – well aligned with current strategies – also preparing to align with LHC physics as it progresses in the coming years:

- Aim provide optimized stages approach up to 3 TeV with costs and power not too excessive compared to LHC (re-baselining underway)
- Very positive progress on Xband technology, due to availability of power sources and increased understanding of structure design parameters
 - CLIC session in Belgrade: Review Xband progress: basic understanding, test-stands
 - Applications in smaller systems; FEL linacs key example – with considerable interesting in the CLIC collaboration, EU application made
- Also recent good progress on performance verifications, drivebeam, main beam emittance conservation and final focus studies
 - Also focus in Belgrade: BBA discussions, BDS/ATF important
 - Initial discussion in Belgrade: CTF3 running and plan until end 2016, strategy for systemtests beyond
- Technical developments of key parts well underway – with increasing involvement of industry – largely limited by funding
- Detector and physics programme well defined, moving ahead well – linking gradually with FCC hadron community
- Collaborations for CLIC accelerator and detector&physics studies are growing



Welcome to the Compact Linear Collider Website

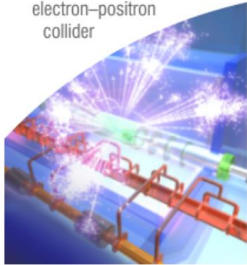
The Compact Linear Collider (CLIC) study is an international collaboration working on a concept for a machine to collide electrons and positrons (antielectrons) head-on at energies up to several Teraelectronvolts (TeV). This energy range is similar to the LHC's, but using electrons and their antiparticles rather than protons, physicists will gain a different perspective on the underlying physics.

The aim is to use radiofrequency (RF) structures and a two-beam concept to produce accelerating fields as high as 100 MV per meter to reach a nominal total energy of 3 TeV, keeping the size and cost of the project within reach. An overview of the CLIC concept "in a nutshell" can be found [here](#)>>.

In a related project, the [CLIC detector and physics collaboration](#) is developing a detector to record collisions at the future high-energy Compact Linear Collider. Precision physics under challenging beam and background conditions is the key theme for the CLIC detector studies. This leads to a number of cutting-edge R&D activities within CLICdp.



What will the future be for accelerator-based particle physics at the high-energy frontier? The CLIC study is developing an innovative option for an electron-positron collider



CLIC today's events



CLIC NEWS

Successful installation of CLIC-module

17/11/2014

The first prototype CLIC X-band module has been successfully assembled and installed in CTF3 during this summer. This big milestone was possible due to a motivated and enthusiastic collaboration between many individuals, groups and services at CERN as well as outside collaborators.

1 of 3 [previous](#) >

UPCOMING EVENTS >>

CLIC Workshop 2015 - 26-30 January 2015, CERN
Registration open! >>

IPAC15 - 3-8 May 2015, Richmond, USA

ICHEP15 - 28-29 September 2015, Istanbul, TURKEY

CERN Accelerator School "Accelerators for Medical Applications" - 26 May - 5 June 2015, Vösendorf, AUSTRIA

NEW WEB PAGE:

<http://clic-study.web.cern.ch>

Please provide feedback now, help to improve further:

alexia.augier@cern.ch and anastasiya.safronava@cern.ch



E-JADE

Europe-Japan Accelerator Development Exchange Programme

Partnership Member	Legal Entity Short Name
Beneficiaries	
European Organisation for Nuclear research	CERN
Commissariat à l'énergie atomique et aux énergies alternatives	CEA
Centre National de Recherche Scientifique	CNRS
Agencia Estatal Consejo Superior de Investigaciones Cientificas (CSIC)	CSIC
Deutsches Elektronen-Synchrotron	DESY
Royal Holloway, University of London	RHUL
University of Oxford	UOXF
Partner Organisations	
High Energy Accelerator Research Organisation	KEK
University of Tokyo	UoT

Work Package No	Work Package Title	Activity Type (e.g. Research, Training, Management, Communication, Dissemination...)	Number of person-months involved
1	LHC consolidation, upgrades and R&D for future hadron machines	Research	78
2	Nanometre scale beam handling at the ATF	Research	178
3	Linear Collider targeted R&D	Research	163
4	Management and Dissemination	Management and Dissemination	99
5	Training and Knowledge Transfer	Training	22

Programme 2015-2018:

- Three main technical WPs (1-3 above)
- Supports extended stays of European Researchers in Japan
- Starts January 1st
- Can also support CERN office at KEK (WP 4)



CLIC Workshop 2015

26-30 January 2015
CERN
Europe/Zurich timezone

Overview
Timetable
Registration
↳ Modify my Registration
Speaker index
List of registrants
Accommodations
Insurance and Visa information
How to come to CERN
Visitors' Portable Computers Registration
CERN Shuttle service
CERN Bike sharing service
CLIC Study Website
Physics and Detector Study Website
Bank Transfer

The **CLIC workshop 2015** will cover Accelerator as well as the Detector and Physics studies, with its present status and programme for the coming years.

For the Accelerator studies, the workshop spans over 5 days: 26th-30th of January.
For CLICdp, the workshop is scheduled from Tuesday afternoon January 27th to lunchtime on Friday 30th.

Please register by filling-in the registration form in the left menu.

Preliminary programme:

Common parts:

- 1- There will be an open plenary session on Wednesday afternoon January 28th, giving an overview of the CLIC project (accelerator, physics/detector), placed in the context of other studies for machines at the energy frontier.
- 2- A common plenary accelerator/detector&physics Friday morning January 30th.
- 3- Workshop dinner on Wednesday evening.

Dedicated Accelerator sessions:

- 1- Parallel sessions on Monday afternoon, Tuesday and Wednesday morning, where we attempt to have presentations of as many as possible of the activities inside the CLIC/CTF3 collaboration, and also some special meetings related to key "CLIC technologies" (for example EU project and WP meetings with strong links)
- 2- A session Thursday covering High Gradient NC accelerators for industrial and medical applications as well as XFELs, using CLIC and other high gradient technology developments. Some limited parallel sessions can overflow into Thursday as compatible with the High Gradient NC session.
- 3- A Collaboration Board Friday afternoon

Dedicated Detector and Physics sessions:

- 1- Parallel sessions on Tuesday afternoon, Wednesday morning and all of Thursday. As usual these sessions will be organised subject-wise by their conveners.
- 2- The CLICdp Institute Board meeting will take place over lunch on Thursday.

We are looking for the widest possible participation and in particular we will encourage presentations and involvement of younger colleagues.




[https://indico.cern.ch
/event/336335/over
iew](https://indico.cern.ch/event/336335/overview)

1st PACMAN Workshop

from Monday, 2 February 2015 at **08:30** to Wednesday, 4 February 2015 at **19:00** (Europe/Zurich)
at **CERN (60-6-015 - Room Georges Charpak (Room F))**

Description The students will present their research program and PhD subject in front of industrial partners, research laboratory representatives, academic supervisors and selected international experts in their field. This will offer the opportunity to discuss/confront their subject with the state of the art in each field.

Material: [Slides](#) 

[Go to day](#) ▾

Monday, 2 February 2015

08:30 - 09:00 Welcome Coffee

09:00 - 10:15 Introduction

Introduction

Convener: Prof. Pasquale Arpaia (Universita del Sannio (IT))

09:00 **Welcome 15'**

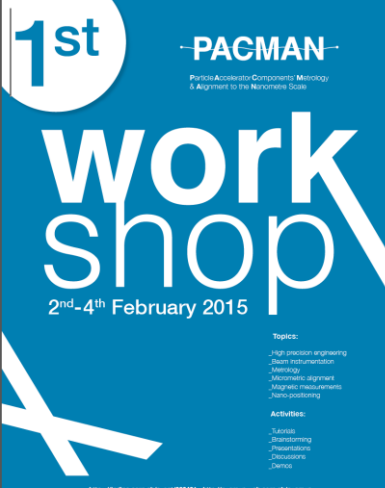
09:15 **Introduction to PACMAN from the chairman of PACMAN Supervisory Board 30'**

Speaker: Prof. Paul Shore (Cranfield University)

09:45 **PACMAN: technical details 30'**

Speaker: Dr. Helene Mainaud Durand (CERN)

WEBPAGE: <http://indico.cern.ch/event/332431/other-view?view=standard>



1st PACMAN
Particle Accelerator Components: Metrology & Alignment to the Nanometre Scale

workshop

2nd-4th February 2015

Topics:

- High precision engineering
- Beam instrumentation
- Timing
- Mechanical alignment
- Machine measurements
- Machine commissioning

Activities:

- Tutorials
- Platforming
- Presentations
- Discussions
- Demos

<http://indico.cern.ch/event/332431> - <http://pacman.web.cern.ch/pacman>

CONFERENZA INTERNAZIONALE SULLA TECNOLOGIA DEI COMPONENTI PER LE ACCELERATORI PARTICELLARI
SPECIAL TECHNIQUES FOR THE STATE OF THE ART OF PARTICLE ACCELERATOR COMPONENTS

Workshop has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019724

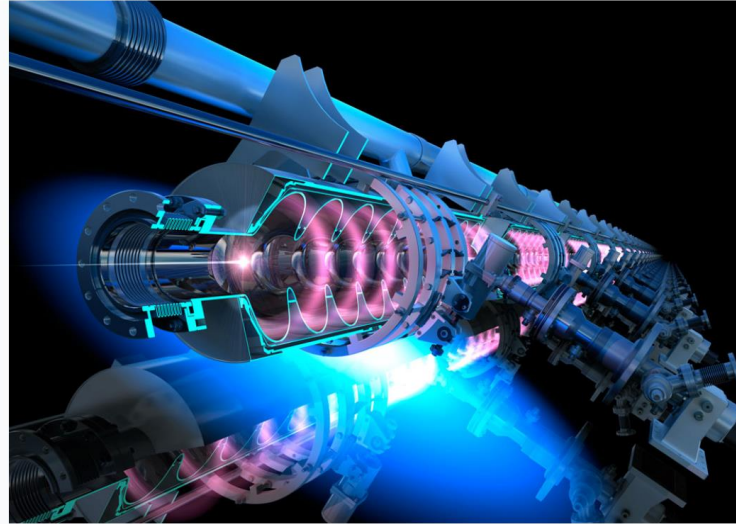


[http://www-
conf.kek.jp/alcw2015/](http://www-conf.kek.jp/alcw2015/)

Concept, R&D,
accelerator and
symposium

Focus on ILC

- [Welcome](#)
- [Bulletins](#)
- [ILC Tokyo Event](#)
- [Committees](#)
- [Program and
Conveners](#)
- [Time table](#)
- [Registration](#)
- [Registrants](#)
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- [\(internal use\)](#)



The Asian Linear Collider Workshop 2015 (ALCW2015) will take place at [KEK](#) in April 20-24, 2015. The workshop will be devoted to accelerator, physics and detector aspects of future high energy electron-positron linear colliders. This workshop is the first Asian regional workshop since the start-up of [LCC](#). Being different from [the past regional workshops in Asia](#) this workshop is co-organized by [KEK](#), [ACFA](#), and [LCC](#) and a new session organization is attempted; detector sessions consists of several mini-workshops of detector concept and R&D groups.

The workshop, being organized at a critical time for the ILC project development in Japan, will have a special focus on the ILC progress in Japan. The ILC event will be held in the middle of the workshop, April 22, at the University of Tokyo, where participants from out side of scientific community get together with us and discuss issues to promote ILC. We hope to have as many participants as possible in Tokyo and accelerate processes to launch the ILC project.

We are looking forward to seeing you in Tsukuba and Tokyo !

Yasuhiro Okada, Chair of the International Organizing Committee
Akiya Miyamoto, Chair of the Local Organizing Committee

Secretary: alcw2015@ml.post.kek.jp

News

2014.12.10
Registration will be open on 18
December.

Contact

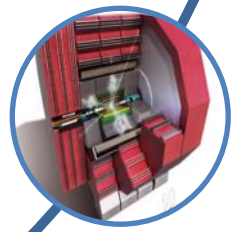
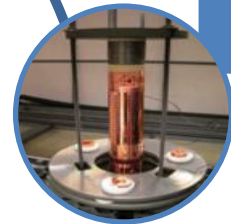
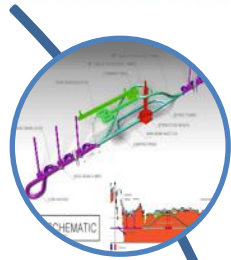


Oho 1-1, Tsukuba, Ibaraki
305-0801

alcw2015@ml.post.kek.jp

More for your agenda

- HG 2015, Tsinghua 16-19 June (confirmed?)
- LCWS 2015, Whistler arranged by Triumf 2-6 November
- LC school – "same" place, last week of October and first week of November partly overlapping
- Reviews: PAC (LCC) April ?, CERN MAC in autumn
- Project meetings 2015 – Late March, May/June, September/October, December (roughly)



Parameters, Design and Implementation

- Integrated Baseline Design and Parameters
- Feedback Design, Background, Polarization
- Machine Protection & Operational Scenarios
- Electron and positron sources
- Damping Rings
- Ring-To-Main-Linac
- Main Linac - Two-Beam Acceleration
- Beam Delivery System
- Machine-Detector Interface (MDI)
- Drive Beam Complex
- Cost, power, schedule, stages

X-band Technologies

- X-band Rf structure Design
- X-band Rf structure Production
- X-band Rf structure High Power Testing
- Novel RF unit developments (high efficiency)
- Creation and Operation of x-band High power Testing Facilities
- Basic High Gradient R&D

Experimental verification

- Drive Beam phase feed-forward and feedbacks
- Two-Beam module string, test with beam
- Drive-beam front end including modulator development and injector
- Modulator development, magnet converters
- Drive Beam Photo Injector
- Low emittance ring tests
- Accelerator Beam System Tests (ATE and FACET, others)

Technical Developments

- Damping Rings Superconducting Wiggler
- Survey & Alignment
- Quadrupole Stability
- Warm Magnet Prototypes
- Beam Instrumentation and Control
- Two-Beam module development
- Beam Intercepting Devices
- Controls
- Vacuum Systems

Detector and Physics

- Physics studies and benchmarking
- Detector optimisation
- Technical developments