

2nd LHC Detector Alignment Workshop

2007

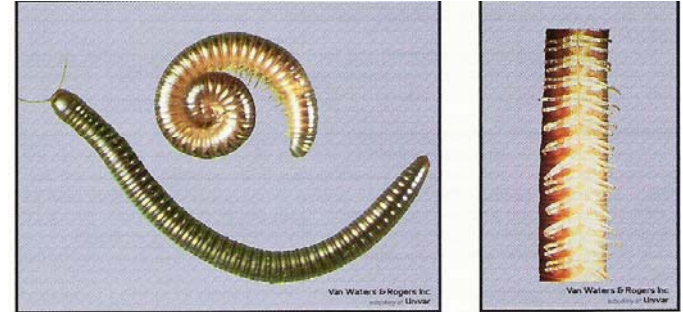
CLOSING SESSION

Introduction



⇒ Update on software alignment:

Monday MORNING



10:00->11:00 Improvements of Algorithms (Convener: Jochen Schieck (*Max-Planck-Institut fur Physik*))

10:00 Millepede II (30')

Volker Blobel

10:30 Application of Millepede II (30')

Markus Stoye

11:00

break

11:30->13:15 Improvements of Algorithms II (Convener: Jochen Schieck (*Max-Planck-Institut fur Physik*))

11:30 Alignment with tracks fitted with a Kalman filter (30')

Wouter Hulsbergen

12:00 Alignment of the ATLAS Muon Spectrometer with Curved Tracks (20')

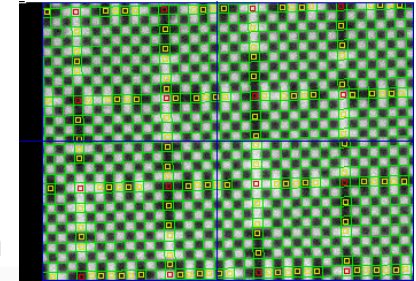
Oliver Kortner

12:20 ATLAS InnerDetector: alignment with tracks (20')



⇒ Look at hardware alignment:

Monday AFTERNOON



14:15->15:45 LHC session - Hardware Alignment (Convener: Florian Bauer (*DAPNIA*))

14:15 ATLAS: Hardware based muon alignment Barrel (15')

Philippe Schune

14:30 ATLAS: Hardware based muon alignment EndCap (15')

Christoph Amelung

14:45 ATLAS: Rapid precise shape monitoring of the ATLAS silicon tracker (30')

Stephen Gibson

15:15 CMS: Muon Hardware System & MTCC Experience (30')

Pablo Martinez

15:45

break

16:15->17:45 LHC session - Hardware Alignment II (Convener: Celso Martinez Rivero (*Consejo Superior de Investigaciones Cientificas (CSIC)*))

16:15 CMS: Silicon Tracker Laser Alignment System (30')

Bruno Wittmer

16:45 ALICE: Geometry Monitoring System of the ALICE Muon Spectrometer and ITS-AMS (30')

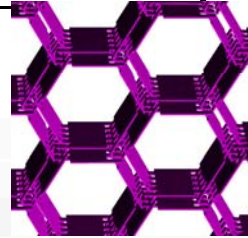
Raphael Noel Tieulent

17:15 LHCb: Laser alignment monitoring system for the RICH (30')

Antonis Papanestis

⇒ Prepare for the first data (survey and computing):

09:15	Geant 4 & Detector Description Model (30')	Gabriele Cosmo
09:45	Status and plans for the startup of the LHC machine (30')	Mike Lamont
10:15	Geological movements in the Pit; alignment of the machine (30')	Christian Lasseuer
10:45	break	
11:15->13:30	First alignment geometry (Survey and first data) (Convener: Salvador Marti I Garcia (<i>Instituto de Fisica Corpuscular (IFIC) UV-CSIC</i>))	
11:15	CMS (30')	Andrei Gritsan
11:45	ALICE (30') <ul style="list-style-type: none"> • First Geometry (15') • First Alignment Plans (15') 	Andrea Dainese, Ricardo Silva
12:15	LHCb (30')	Steven Blusk (<i>Syracuse University</i>)
12:45	ATLAS (30')	Christian Schmitt
13:30	Lunch	
14:30->16:30	Alignment and Computing (Convener: Thomas Ruf (<i>CERN</i>))	
14:30	ATLAS alignment computing ID+Muon (30')	Serguei Kotov
15:00	ALICE: Alignment and computing (30')	Raffaele Grosso
15:30	CMS: Alignment work and data flow (30')	Jim Pivarski
16:00	LHCb (30')	



Tuesday



1. Outcome of the first Workshop
2. Goals of the second Workshop

⇒ And a look at the future...

TUESDAY MORNING

09:15 Alignment at the ILC (30')

Marcel Vos

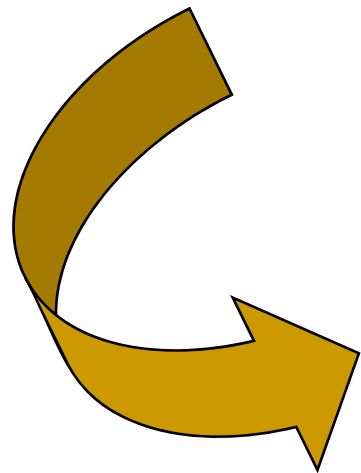


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Have we reached
the goals ?

- Comments
- Criticism
- Suggestions
- Something to add, rectify ?

2nd LHC Detector Alignment Workshop



**Discovery potential
- alignment quality
dependent !!!**

 **PHYSTAT-LHC Workshop** 

on
Statistical Issues for LHC Physics

CERN Geneva June 27-29, 2007



This Workshop will address statistical topics relevant for LHC Physics analyses. Issues related to discovery, and the associated problems arising from systematic uncertainties, will feature prominently.

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Conference secretaries
Dorothee Denise Dorothee.Denise@cern.ch
Kate Ross Kate.Ross@cern.ch

Further information and registration at <http://cern.ch/phystat-lhc>

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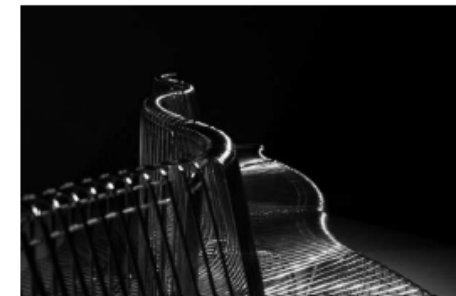
http://www.physics.gla.ac.uk/~sviret/LHCali_main.pdf



Many thanks to all
contri butors!

CERN-2007-777
27 May 2007

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH



Proceedings of the first LHC Detector Alignment
Workshop

CERN, Geneva, Switzerland
4-6 September 2006

240 pages

GENEVA
2007

A ROAD AHEAD



2nd LHC Detector Alignment Workshop

25-26th June 2007

1st LHC Detector Alignment Workshop

4-6 September 2006
CERN, Geneva

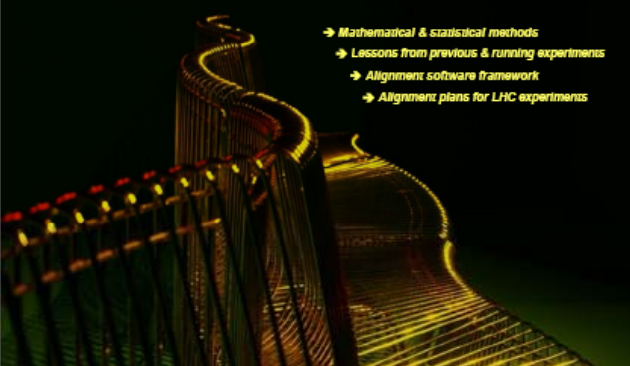
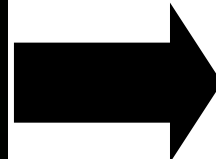
The aim of the workshop is to exchange ideas and information on the issues related to alignment of detectors

- Mathematical & statistical methods
- Lessons from previous & running experiments
- Alignment software framework
- Alignment plans for LHC experiments

More Information : <http://lhc-detector-alignment-workshop.web.cern.ch>

Organizing Committee :

S. Blusk	(Syracuse)
O. Buchmuller	(CERN)
A. Jacholkowski	(Catania)
S. Maril I Garcia	(Valencia)
T. Ruf	(CERN)
K. Safarik	(CERN)
J. Schleck	(Munich)
S. Viret	(Glasgow)

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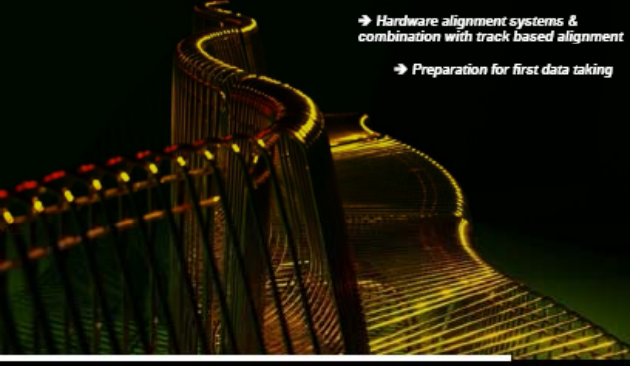
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- Hardware alignment systems & combination with track based alignment
- Preparation for first data taking

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**Thanks to everybody
and see you again
after first alignment
(with real data !)**