

Test Beam Plans

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Beam Telescopes and Testbeams for Detector R&D

from 30 June 2014 to 02 July 2014 (Europe/Berlin) *DESY Hamburg*
Europe/Berlin timezone

Overview

Scientific Programme

Timetable

Registration

Registration Form

Accommodation

Travel Information

Similar to last year's "EUTelescope Workshop", this workshop will cover a wide range of topics related to tools needed for detector studies in testbeams and aims at bringing together both experts and newcomers to the field.

We are planning to cover the following topics:

- Integration into existing and future telescopes
- Introduction to EUDET-family of telescopes and how to integrate
 - The future AIDA pixel beam telescope
 - Integration/usage by example: Telescope user's success stories
- How to build your own beam telescope
 - Experience from EUDET, TimePix, CMS Pixel and others
- Developments for a common infrastructure and available tools
 - cooling, powering, remote control, monitoring, rapid prototyping
- Features of and experiences with the different available beam lines
 - DESY TB21-24, CERN, SLAC, low energy beams
 - operating in Bfields: mechanical setup, cabling, alignment, tracking
- Testbeam data analysis tools
- Tracking and Alignment
- Examples of interesting/challenging integrations and testbeam data analyzes
- Simulation of pixel devices and their behavior in a testbeam
 - TCAD, Geant4, ...
 - alternative tools/write your own
- Tutorials
 - Data analysis with EUTelescope
 - Alignment Tips and Tricks
 - ... and your tools!

- The Belle II vertex detector test beam experience. AIDA power pulsing and monitoring deliverables.

C. Marinas (Bonn)

- Alignment and tracking with Millipede II and GBL for the Belle II VXD test beam.

T. Bilka (Prague)

- DUT and Telescope data merging. Tricks and issues.

P. Kvasnicka (Prague)

- CO₂ experience during the Belle II VXD test beam.

R. Stever (DESY)

- Pixel data reduction on the Belle II VXD test beam.

T. Schlüter (LMU) or G. Casarosa (Pisa) or J. Lettenbichler (Vienna)

- Material budget measurement using beam and DEPFET integration into EUTelescope.

B. Schwenker (Göttingen)

- Slow control and data logging. Experience of the Belle II VXD test beam.

M. Ritzert (Mannheim)

Any other?

SPS: November 2014

schedule issue date: 06-May-2014

Version: 1.0

		Mon 27 Oct	Tue 28 Oct	Wed 29 Oct	Thu 30 Oct	Fri 31 Oct	Sat 1 Nov	Sun 2 Nov	Mon 3 Nov	Tue 4 Nov	Wed 5 Nov	Thu 6 Nov	Fri 7 Nov	Sat 8 Nov	Sun 9 Nov	Mon 10 Nov	Tue 11 Nov	Wed 12 Nov	Thu 13 Nov	Fri 14 Nov	Sat 15 Nov	Sun 16 Nov	Mon 17 Nov	Tue 18 Nov	Wed 19 Nov	Thu 20 Nov	Fri 21 Nov	Sat 22 Nov	Sun 23 Nov	Mon 24 Nov	Tue 25 Nov	Wed 26 Nov	Thu 27 Nov	Fri 28 Nov	Sat 29 Nov	Sun 30 Nov
Week		44							45							46							47							48						
Machine		UA9 MD TS 7h 8h 7h 10h							7h 12h							7h 12h							7h 12h							UA9 MD 7h 7h 12h						
North Area	T2 - H2	CMS Upgrade 2 D. Lazic							Z. Fodor																					NA61 (SHINE)						
	T2 - H4	CMS EE aging D. Lazic							CMS ECAL R&D							RE29 (DAMPE) X. Wu							PHOTAGICE-RAD M. Prest, V. Guidi							RD51						
	T4 - H6A	H. Wilkens ATLAS							M. Silari CERF							D. Dannheim Clic pix							RE20 (BELLE II) T. Berghauer							M. Winter Monopix						
	T4 - H6B	F. Wilson Arachnid							M. Silari CERF							P. Martinengo ALICE ITS							ATLAS ALFA/AFP K. Hiller, M. Rijssenbeek							RE20 DEPFET(BELLE II) C. Marinas						
	T4 - H8	LHCb Tracker H. Schindler H8A							LHCb PID							H. Kroha ATLAS MDT H8B							T. Peitzmann ALICE FOCAL H8C							H. Schindler LHCb H8A						
	T4 - K12	A. Ceccucci																												NA62						
	T6 - M2	F. Kunne																												NA58 (COMPASS)						

- RE20 → Belle II experiment at CERN
- 24th November at the H6B line CERN-SPS with AIDA Telescope

→ Common agreement: Small, very specialist activity. Clean up open issues or loose ends.

- **Hybrid 6.0:**

Noise/pedestal studies. 2b DAC operation. Hit efficiency. Resolution. Angular scan. Secondary showers

- **Hybrid 5.0 / EMCM:**

Operation at 320 MHz. DCDBPipeline and DHPT1.0. Gated mode.

- **'Exotics':**

Additional X0 measurements with reference materials. ILC type.

→ Anything else?

- No official plans yet
 - ↳ Still, we should be prepared!
- January / February (?) to build the set up again at DESY
- SVD+PXD+DAQ+CO₂+PowerSupplies+Monitors+SlowControl
 - 1) Grounding scheme. Noise
 - 2) Cooling performance and impact at sensor and ASICs
 - 3) PXD ↔ SVD interference
 - 4) Test Beam

Thank you

