

Preparations towards the combined beam test

C. Marinas and the DESY Group



- VXD common test beam in January 2014
- Small octant (piece of cake) of the <u>final</u> detectors (2 PXD + 4 SVD) single module layers
- Final detectors including cooling, DAQ, slow control, *pocket* HLT, DatCon, PS, ...
- Illumination with (up to) 6 GeV e⁻ at DESY under solenoid magnetic field (PCMAG)



- 4 Weeks, starting in January 2014
- Start the installation in the experimental area in September 2013, using the machine shutdown (3.5 months)
- If no additional delays, this is optimal for our goals
- Even before September, there is a lab for tests (MARCO, DAQ, ...) in TASSO Hall

SHUTDOWN	36-52				T24/1
6-Jan-14	2	FCAL	 	CALICE AHCAL	Belle II VXD
13-Jan-13	3	FCAL	 	CALICE AHCAL	Belle II VXD
20-Jan-13	4	SBS GEM	 APIX 3D		Belle II VXD
27-Jan-13	5	SBS GEM	 DIAPIX		Belle II VXD
3-Feb-14	6	LHCb VELO			LorAngle
10-Feb-13	7	LHCb VELO			
	8				
	9				
	10				

Special thanks to the DESY test beam coordinators (I. Gregor, N. Meyners, M. Stanitzki)

Lab Space for Assembly and Test





- Free space in PETRA-Hall SO (TASSO)
- Mobile clean room. Two compartments
 - DAQ setup
 - MARCO + thermal mockup
- need to equip with CO $_{\rm 2}$ alarm system <code>cmarinas@uni-bonn.de</code>

























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Energy and rates (T24)



- e⁻ spectrum up to 6 GeV
- Energy spread ~5%
- Divergence of ~ 2 mrad



Mimosa 26







MAPS

- Pitch $18.4 \times 18.4 \times 50 \ \mu m^3$
- 1152 × 576 pixels
- $10.6 \times 21.2 \text{ mm}^2$ active area
- Binary readout (3.5 μm resolution)
- Integration time 115.2 μs
- Maximum rate of 2 kHz
- Efficiency ~98%

EUDET (AIDA) Telescope





DESY Hall











- # People and period expected for the different groups ?
- When do we start with the installation?
- Length of the cables, power consumption of electronics and size of your systems needed for the detailed preparation of the area



Thank you



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