Calorimeter Sessions at the Project X Summer Study

Project X Summer Study

David Hitlin Caltech





June 2012

Calorimeters in Project X experiments

- Muon experiments
- Kaon experiments
- nn oscillation experiment

These three classes of experiments pose different constraints on photon detection requirements

- Energy range MeV to GeV (this is not the LHC or ILC)
 - ☐ High resolution (muons) (kaons)
 - ☐ Large area (kaons)(nn)
- Spatial resolution
- Time resolution

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☐ Cost





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Identifying R&D directions

- Our approach is to survey existing/proposed experiments, asking the parallel session presenters to address issues the come to the fore at Project X intensities
- We will then use this information to synthesize one or more FWP documents on the time scale of the end of the summer
 - Can required R&D be classified as generic, or is it projectspecific?
 - What are the relevant time scales for the work?
 - What budget is required?
 - Who is willing to take responsibility for separate proposals or sections of a unified proposal



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Parallel sessions

Sat	■ Date	Duration	Туре	Title	Presenter
	2012-Jun-16 11:00	00h10'		Introduction	Prof. HITLIN, David
	2012-Jun-16 11:10	00h20'		MEG Calorimeter experience and upgrade	Prof. MOLZON, William
	2012-Jun-16 11:30	00h25'		mu to e gamma (converted), eee	DEJONGH, Fritz
Mon	2012-Jun-16 11:55	00h25'		Mu2e calorimeter design and extrapolation	Prof. HITLIN, David
	2012-Jun-16 16:00	00h25'	μ	New crystal development	Dr. ZHU, Ren-yuan
	2012-Jun-16 16:25	00h25'		PbF2/SiPM beam test	Dr. WINTER, Peter
	2012-Jun-16 17:00	00h30'		Discussion	
	2012-Jun-18 08:50	00h25'		Kaon experiment calorimetry requirements	Dr. LITTENBERG, Laurence
	2012-Jun-18 09:15	00h25'		ORKA calorimeter - I	GATTO, Corrado
	2012-Jun-18 09:40	00h25'		ORKA Calorimeter - II	Dr. MAZZACANE, Anna
	2012-Jun-18 10:05	00h25'	7	KOPIO preradiator and calorimeter	Dr. POBLAGUEV, Andrei
	2012-Jun-18 14:00	00h25'	า _	Teflon-based scintillator	Dr. YEH, Minfang
	2012-Jun-18 14:25	00h25'		KTeV Csl calorimeter	WORCESTER, Elizabeth
	2012-Jun-18 14:50	00h10'		Calorimetry requirements for an nnbar experiment	Prof. KAMYSHKOV, Yuri
	2012-Jun-18 15:00	00h30'		Discussion	
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+Wed June 20 Organization for writing of FWP document(s)



