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Subject: Re: MDI Workshop 2004 at SLAC, preliminary talk list  
Posted by [mwoods](#) on Wed, 08 Dec 2004 20:54:19 GMT  
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The prelim Session 5 talks have been posted to the MDI Workshop program webpage. Would like to add 1 10' talk by Ray Arnold on "SLAC ESA capabilities for testing forward region detectors"; -- this could lead into short discussion on what beam tests are needed/planned.

Also, here are some notes from a recent discussion at SLAC (among Maruyama, Markiewicz, Graf, Barklow, Arnold, Woods and Torrence) for useful issues to discuss in this session:

electron id and reality of 99.9% efficiency requirement  
describe the algorithm used and assumptions made for electron id in BEAMCAL  
review curves presented to ITRP and LCWS summarizing efficiency vs radius as function of fake rate;  
dependence on crossing angle and solenoid compensation  
review need for 99+% efficiency

relative importance of 5-40 mrad region

review current SUSY phase space to explain dark matter abundance (ex. Fig. 1 in hep-ex/0406010 [http://arxiv.org/PS\\_cache/hep-ph/pdf/0406/0406010.pdf](http://arxiv.org/PS_cache/hep-ph/pdf/0406/0406010.pdf)) -- how much of available phase space is enabled by covering 5-40 mrad region?  
review detectors in this region at SLC, LEP, B Factories;  
ex. OPAL detector. How well did they perform? Is there a negative impact to the crossing angle at the B factories?

using pairs to extract beam parameters?

using BEAMCAL  
using wider angle pairs (ex. in VXD)? useful to identify someone for this work; Glen White?

need for beam tests for detectors in this region?

to demonstrate electron id efficiency in presence of pair background?  
Radiation hardness?  
Achieving 99.9% electron id efficiency -- fluctuations in showers?