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Subject: Re: Tracking: Kalman Task with STT,(electron hypo)

Posted by [Lia Lavezzi](#) on Thu, 23 Dec 2010 12:07:59 GMT

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Hi Stefano,

Quote:the "right" choice is electron only if you consider a mathematical point of view... in analysis we need a better momentum reconstruction and from plots I would use muon hypothesis to have a better invariant mass peak. And it would be interesting to know why the momentum is much better in this case. Maybe also a plot of  $\chi^2/\text{ndf}$  would be interesting. But consider the kinematic fit: you have to give also the covariance matrix as input there, and with the muon hypo for a "true" electron it is clearly wrong (see the pull distribution), so you will not get good results with it. Probably with the electron hypo and the good covariance matrix the result will be better.

If the pull is wrong, then the result is not reliable... ok, that should come out also from the  $\chi^2$ ...

Lia.

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