
Subject: Re: Tracking: Kalman Task with STT,(electron hypo)
Posted by [Stefano Spataro](#) on Thu, 23 Dec 2010 12:30:21 GMT
[View Forum Message](#) <> [Reply to Message](#)

I still do not understand; let's forget about the tails, for the moment:

Muon: $p_{rec} - p_{mc}$ narrower, $p_{rec} - p_{mv} / \sigma$ broader
Electrons: $p_{rec} - p_{mc}$ broader, $p_{rec} - p_{mc} / \sigma$ narrower

->

Muons: sigma smaller
Electrons: sigma bigger

Muons have a better residuals, but small errors (why?)
Electrons have larger residuals, and larger errors.

I would suppose that errors for muons should be larger, and also the residuals, considering that this is the wrong hypothesis. Electrons should fit better the points, with a reduced residual and properly calculated errors. But this does not appear.

I continue to think that there is something wrong somewhere for electrons.
Let's remember that track parameters are used not only for kinematical fit, but also for pid and for correlation, where we do not need covariance matrix.