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Subject: Re: STTPoints do not match with STTHelixHit  
Posted by [Susanna Costanza](#) on Fri, 24 Apr 2009 11:31:12 GMT  
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Hi Tobias and Stefano,  
we made some tests with 3 pions per event and with 3 muons per event, splitting the momentum range in 2 ranges: [0.1,1.] GeV/c and [1.,2.5] GeV/c.

Here is what we see for muons:

--> [0.1,1]:

- for 67% tracks, STTPoints match STTHelixHits
- for 17% tracks, failure in xy fit (no z reconstruction)
- for 16% tracks, all fits are successful but STTPoints do not match STTHelixHits

--> [1.,2.5]:

- for 83.3% tracks, STTPoints match STTHelixHits
- for 16.7% tracks, all fits are successful but STTPoints do not match STTHelixHits.

It's clear that the number of mismatches is higher for lower momenta, due to fit failures.

Concerning pions, the problem is that there are low momentum tracks (electrons) also in the range [1.,2.5] GeV/c, so the failures are more evident.

At present, this is the situation; z reconstruction is under investigation.

Ciao,  
Susanna & Lia

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