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Subject: Re: TrackCand dip treatment where Theta > 90°  
Posted by [Marius Mertens](#) on Tue, 28 Apr 2009 13:37:54 GMT  
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Hi Christian,

dip angle (as used by the Riemann track finder) and polar angle (Theta, as used by PndFlatGen and probably other event generators) as they are implemented at the moment, are not the same.

Currently, `_dip` stores the cosine of the angle between track and xy-plane. Due to this operation the sign is lost (one can argue if "lost" is strictly correct as Sebastian already pointed out that the actual direction of a track is ambiguous unless additional information is present), but I assume its range should be  $-90^\circ..90^\circ$  in order to cover the full polar angle range of  $\text{Theta} = 180^\circ..0^\circ$ .

Best regards,

Marius

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