

Synergia2 - Bug # 77: negative pz² after fast mapping

Status:	New	Priority:	Normal
Author:	Alexandru Macridin	Category:	
Created:	11/22/2011	Assigned to:	
Updated:	11/22/2011	Due date:	
Subject:	negative pz ² after fast mapping		
Description:	<p>Because fast_mapping is an approximation, and the particles coordinates are stored as px,py, and dp, it can happen that $p_z^2 = p^2 - p_x^2 - p_y^2 < 0!!!$ This is unphysical, and if this particle happens to propagate through an rf cavity (where the transformation from dp/p to pz is employed), $p_z = \text{nan!}$ From that point on, everything we measure and contains this particle will make non-sense, even if the job continues to run.</p> <p>The problematic particle should be discharged!</p>		

History
