
Subject: Re: B field scaling for PANDA

Posted by [Mohammad Al-Turany](#) on Mon, 16 Feb 2009 13:05:29 GMT

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Hi,

It is now implemented and available in SVN, Jost has generated the maps for different beam energies, namely:

15.0 GeV/C
11.91 GeV/C
8.90 GeV/C
4.06 GeV/C
1.5 GeV/C

the corresponding maps are:

The dipole itself:

DipoleMap1.1500.root
DipoleMap1.1191.root
DipoleMap1.0890.root
DipoleMap1.0406.root
DipoleMap1.0150.root

in front of the dipole:

DipoleMap2.1500.root
DipoleMap2.1191.root
DipoleMap2.0890.root
DipoleMap2.0406.root
DipoleMap2.0150.root

and the region between dipole and Solenoid:

TransMap.1500.root
TransMap.1191.root
TransMap.0890.root
TransMap.0406.root
TransMap.0150.root

The beam energy can be set in sim macro with:

```
FairRunSim::SetBeamEnergy(Double_t Energy /** GeV/c */) 
```

according to the energy the field is selected, for now the selection is as following:

```
BeamEnergy < 2.0    Map 0150  
BeamEnergy < 5.0    Map 0406  
BeamEnergy < 10.0   Map 0890;  
BeamEnergy < 12.0   Map 1190  
otherwise            Map 1500;
```

An example for using this can be found in `macro/run/run_sim.C` and `macro/emc/sim_emc.C`

setting this in a simulation session, the RuntimDB will take care that the reconstruction get the proper fields!

regards

Mohammad