
Subject: Re: geometry overlaps for PANDA subdetectors
Posted by [Stefano Spataro](#) on Wed, 24 Jul 2013 13:54:36 GMT
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After some studies, I write here the list of overlaps I found:

MVD: Many internal overlaps, hopefully negligible. The geometry should be revised (?)

STT: Minor overlaps between the ends of some straws, this will be fixed in the STT version with all the passive elements.

EMC3: Many internal overlaps, the geometry should be revised (?)

FSC: Many internal overlaps, the geometry should be revised (?)

SOLENOID: Minor internal overlaps, negligible. Also overlap of support structure with MDT layer 0, negligible.

DIPOLE: Minor internal overlaps, revised (?)

RICH: The mirror is larger than the container box. Minor.

Between the previous overlaps, I believe the MVD, EMC3 and FSC should be fixed to be on the safe side.

Moreover, there are other overlaps coming from the target+beam pipe:

PIPE: Internal overlaps in some valve and in the transition to dipole pipe.

FTOF: Overlaps in the hole region

EMC12: Overlaps in the hole region

STT: Overlaps between the two halves.

GEM: Overlaps in the hole region

I don't understand in particular the overlaps in the barrel spectrometer, the target pipe becomes larger than the space originally left and many detectors should be more separated... Quite strange. Not clear if the detector geometries should be modified or simply the pipe is too large. I know there is some more updated design of the pipe, I would wait for it before complaining officially.

I leave the word now to the detector experts...