
Subject: geometry overlaps for PANDA subdetectors
Posted by [Maria Patsyuk](#) on Thu, 18 Jul 2013 10:49:09 GMT
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Dear all,

we checked the geometry (supersposition of a number of subdetectors) using the following macro

```
macro/run/sim_complete.C
```

without event generation (the following lines were commented out:

```
//fRun->Run(nEvents);
```

```
//exit(0);
```

```
)
```

And we got a number of overlaps (see below).

Does this macro suppose to have these overlaps?

What do the overlaps mean in terms of the resulting data sample? Do they spoil the simulated data?

What is the right macro to run simulation with at least STT, EMC, SciTil and DIRC detectors put together?

Best regards,
Maria Patsyuk

```
root [1] gGeoManager->CheckGeometryFull()
```

```
=====
STAGE 1: Overlap checking by sampling within 10 microns
=====
```

```
Info in <TGeoNodeMatrix::CheckOverlaps>: Checking overlaps for cave and daughters within 0.001
```

```
Info in <TGeoNodeMatrix::CheckOverlaps>: Checking overlaps by sampling <s> for cave and daughters
```

```
Info in <TGeoNodeMatrix::CheckOverlaps>: === NOTE: Extrusions NOT checked with sampling option ! ===
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps adding-up to 188.12 +/- 71.1025 [cm3] for daughters of FullSuperConductingSolenoidov831
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps adding-up to 13.4371 +/- 13.4371 [cm3] for daughters of Cryostatov830o2
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 14 overlaps adding-up to 268747 +/- 3761.36 [cm3] for daughters of ms
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 2 overlaps adding-up to 261.124 +/- 82.5745 [cm3] for daughters of BeamPipe
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 36 overlaps adding-up to 57.771 +/- 7.65195 [cm3] for daughters of stt01assembly
```

```
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 4 overlaps adding-up to 19.236 +/- 1.83408 [cm3] for daughters of Mvd-2.1o(Central-Mvd)
```

Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 166.789 +/- 5.21982 [cm3] for daughters of Mvd-2.1oSupport
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 10235 +/- 34.7595 [cm3] for daughters of Mvd-SupportoGlobalFwd
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 0.000116925 +/- 0.000116925 [cm3] for daughters of
SupportoPbloConeo1oIloaoii
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 0.00211537 +/- 0.00211537 [cm3] for daughters of
Mvd-SupportoBI2
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 502.4 +/- 4.19747 [cm3] for daughters of Mvd-2.1oComponents
Info in <TGeoChecker::CheckOverlapsBySampling>: #Found 1 overlaps
adding-up to 816.014 +/- 4.80008 [cm3] for daughters of
Mvd-ComponentsoConoElectronics
...
