



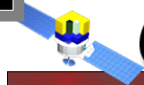
Beamtest06 geometry review - I

**Gamma-ray Large
Area Space
Telescope**

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Motivations

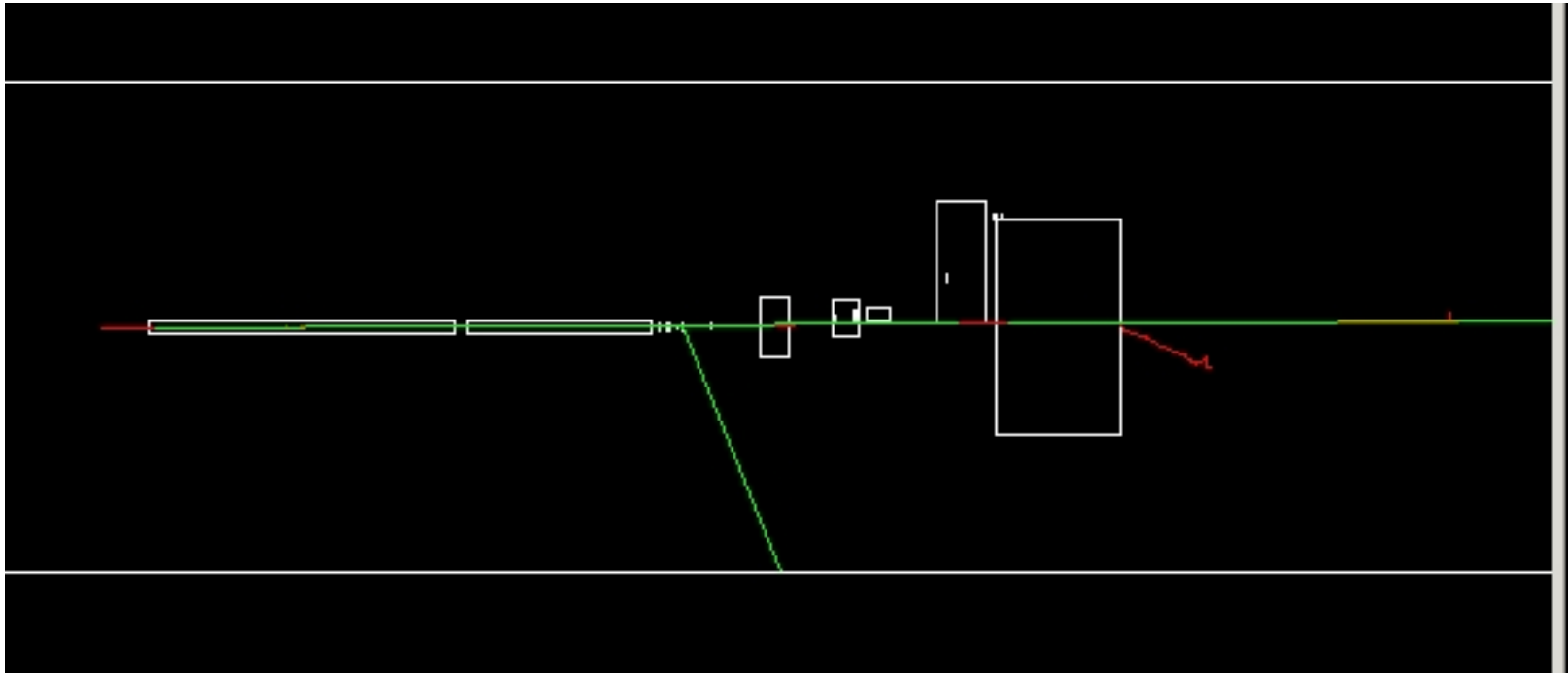
- **Check if beamtest06 is ok with respect to materials and position of detectors**
- **Caveat: different positions and setup for different runs**
- **Work in progress**



PS setup

Cherenkov

Trigger, Magnet, Tagger



EM Cal & Dump

CU



PS materials

Nominal Values

Volume	Material	Position of centre (mm)
C1	CO ₂	-7705; 0; 0
C2	CO ₂	-3505; 0; 0
S0	Plastic	-1870; 0; 0
Sh	Plastic	-1735; 0; 0
S3	Plastic	-1725; 0; 0
S1	Plastic	-1715; 0; 0
S2	Plastic	-1600; 0; -10
Al Win 1	Al	-1522.0125; 0; 0
SSDs1	Si	-1517; 0; 0
Al Win 2	Al	-1511.9875; 0; 0
Al Win 3	Al	-1022.0125; 4.518; 1.46
SSDs2	Si	-1017; 4.518; 1.46
Al Win 4	Al	-1011.9875; 4.518; 1.46

+ 600 micron Mylar 4 Cherenkov Windows & Air elsewhere



PS materials

Nominal Values

Al Win 5	Al	999.9875; 161.7; 0
SSDs3	Si	1005; 161.7; 0
Al Win 6	Al	1010.0125; 161.7; 0
Al Box	Al	1005; 71.7; 0
Al Win 7	Al	1301.9875; 209.9; 0
SSDs4	Si	1307; 209.9; 0
Al Win 8	Al	1313.0125; 209.9; 0
S4	Plastic	1319.5125; 209.9; 0
Dump	Pb	2350; 2030; 0
Trigger	Plastic	2800; 800; 0
Annihilator	matPlexiglass	3000; 0; 0
CU	Air	4630; 0; 0
NaI	NaI	1700; 219.9; 0



PS review

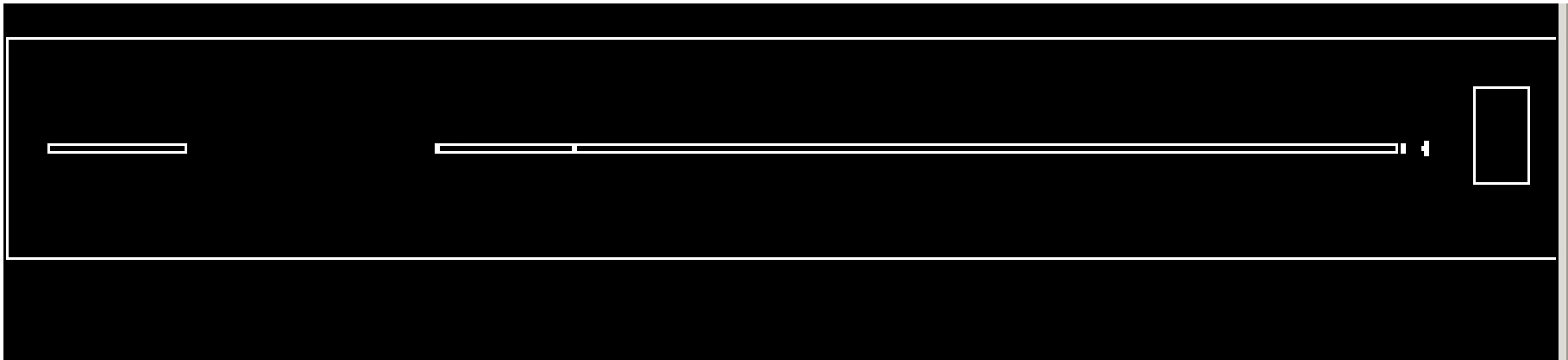
- **Small air space (~150 micron) between Cherenkov Windows and Cherenkov Volumes**



SPS setup

Cherenkov & Beam Pipe

Trigger



CU



SPS materials

Nominal Values

Volume	Material	Position of centre (mm)
Al Box	Al	-48707.61; 0; 0
C1	CO ₂	-46205.85; 0; 0
C2	CO ₂	-32004.63; 0; 0
Vacuum	Vacuum	-14493.41; 0; 0
S0	Plastic	734.2; 0; 0
S2	Plastic	1481.2; 0; 0
S1	Plastic	1514.2; 0; -1
Sv3	Plastic	1564.2; 0; 219.5
Sv4	Plastic	1564.2; 0; -219.5
Sv1	Plastic	1650.2; 26.2; 4
Sv2	Plastic	1650.2; -26.2; 3
CU	Air	4300; 500; 0

+ 610 micron Mylar 6 Cherenkov Windows & Air elsewhere



SPS

- **1 Overlapping Detector: Cherenkov Window inside the Cherenkov Volume C1.**



To Do List

- **Verify effect on Simulations**
- **Positions to be verified for different Setups**