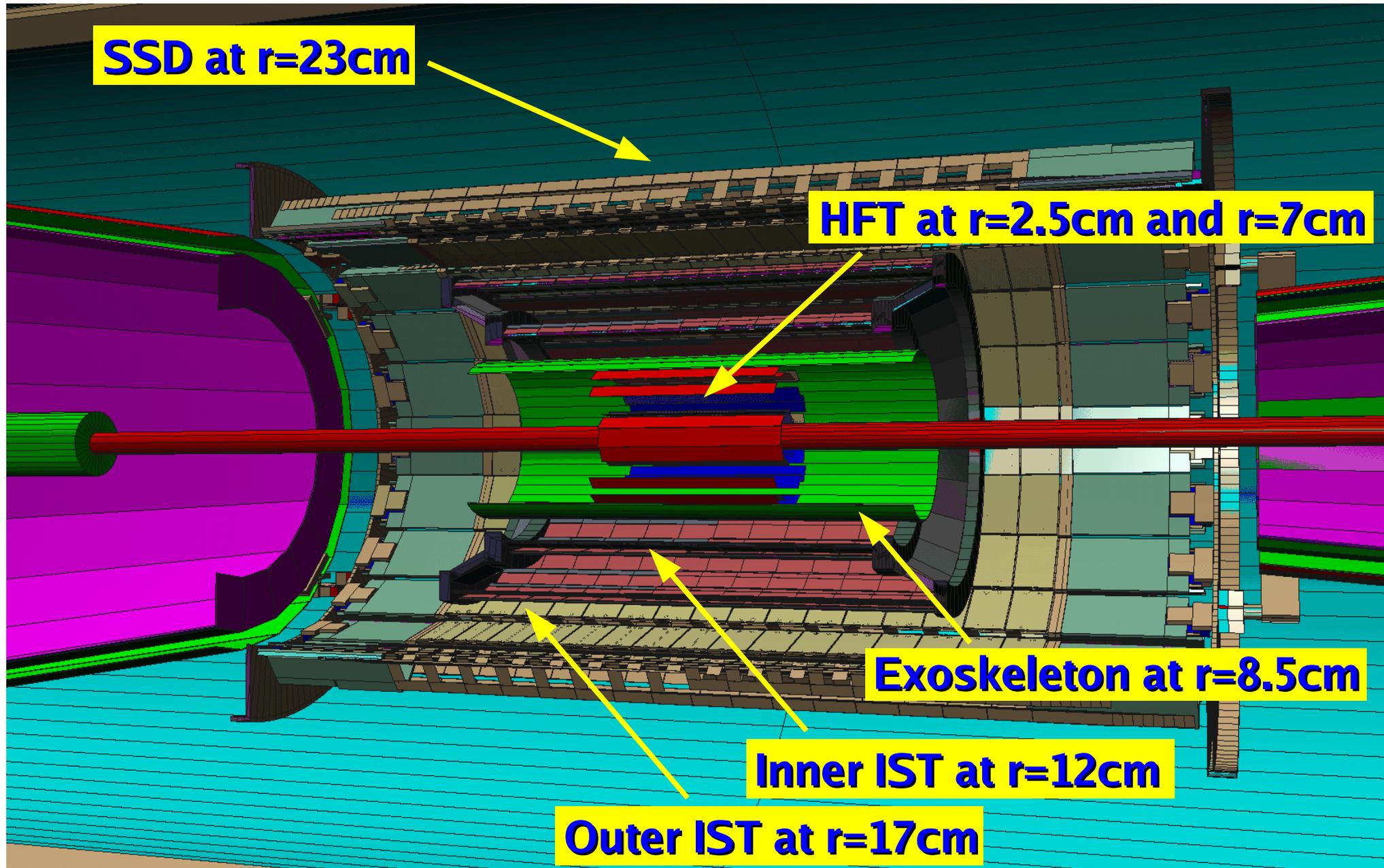


**Final IST configuration:
Introductory remarks
before we start
the discussion**

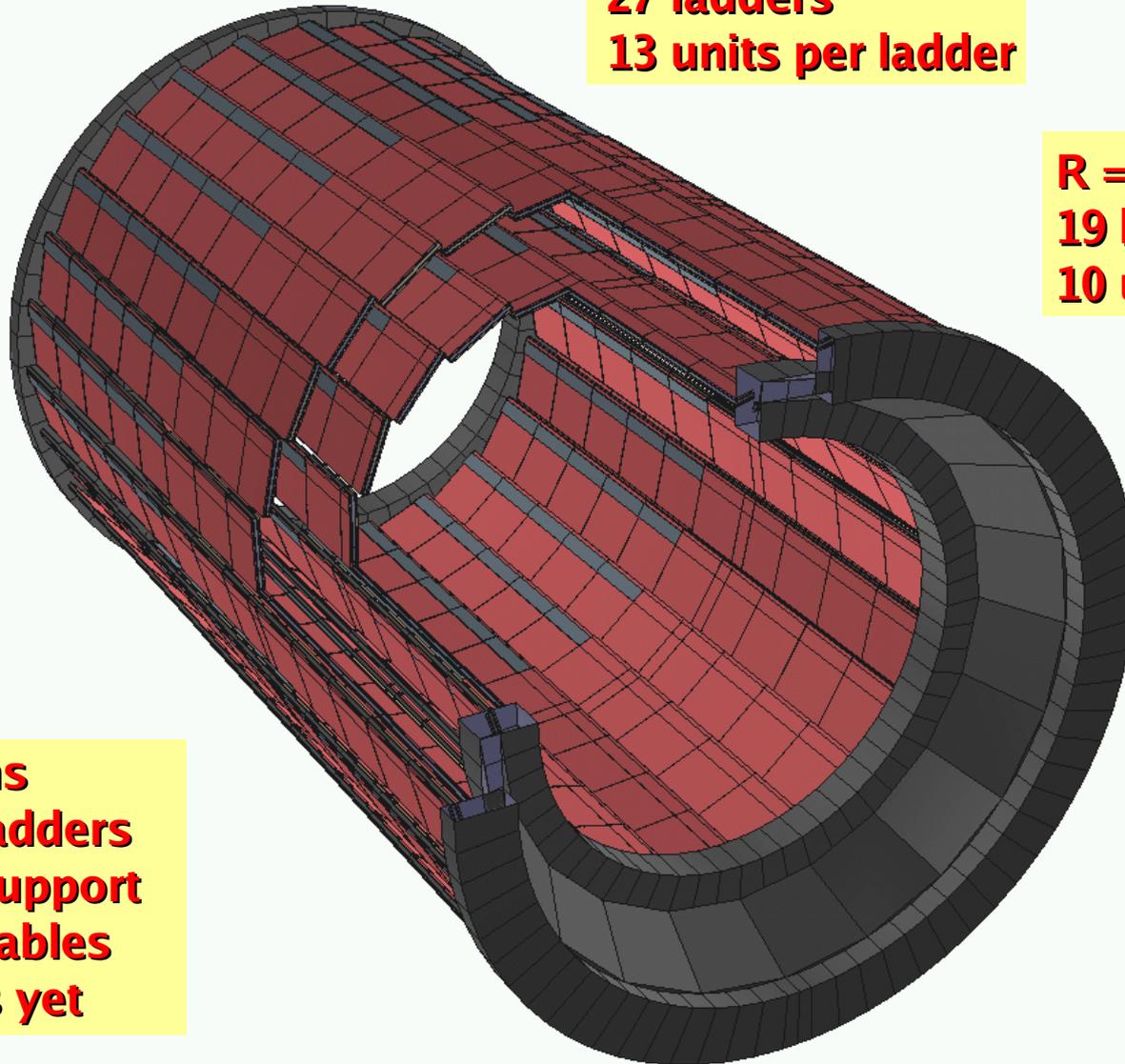
The tracking layers



IST design

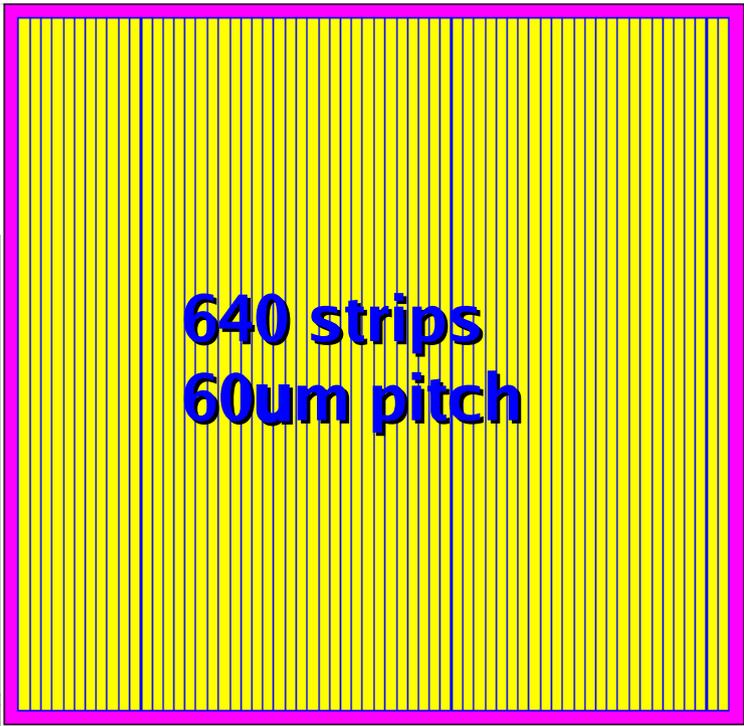
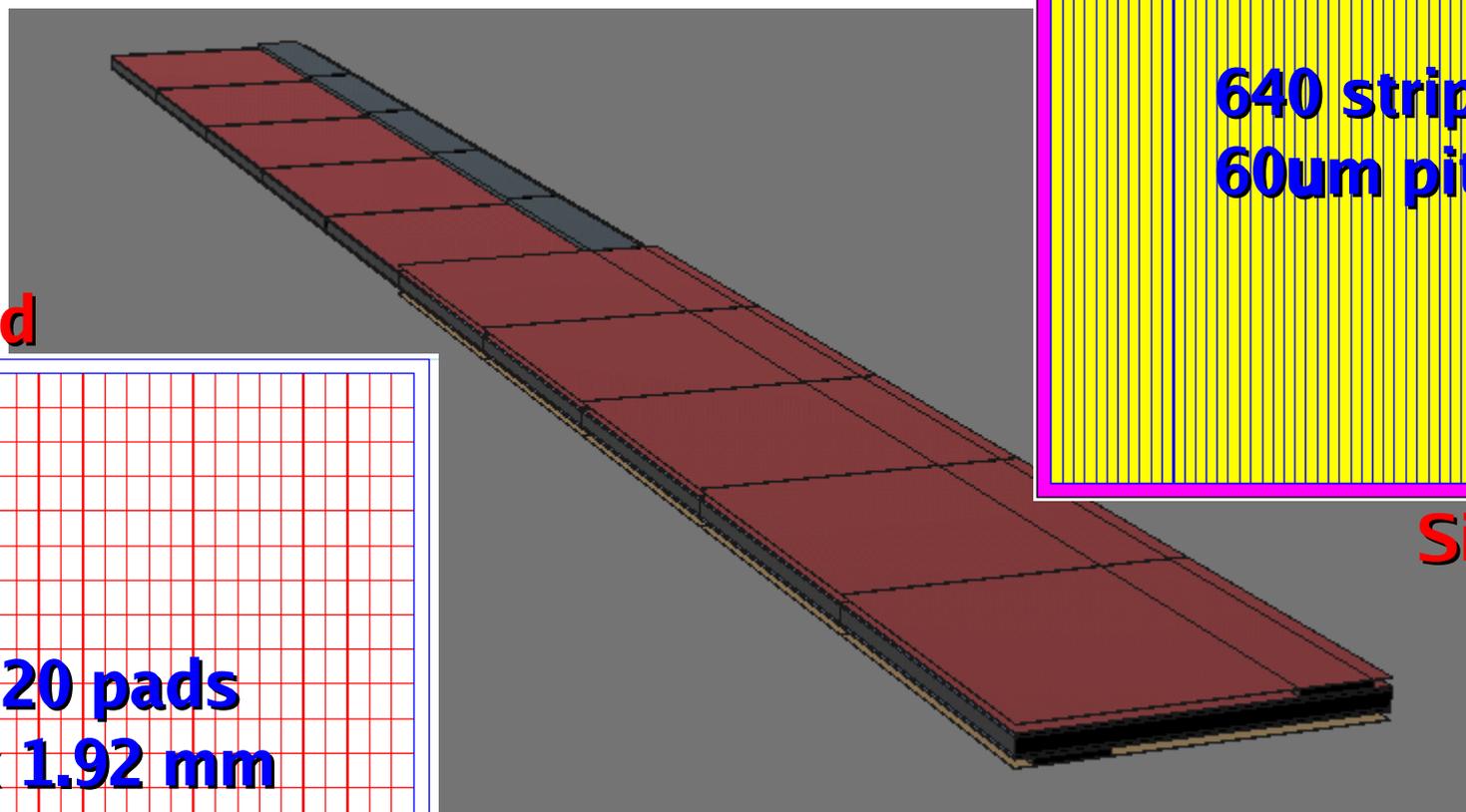
**R = 17 cm
27 ladders
13 units per ladder**

**R = 12 cm
19 ladders
10 units per ladder**



**Simulations
Realistic ladders
Realistic support
Realistic cables
No utilities yet**

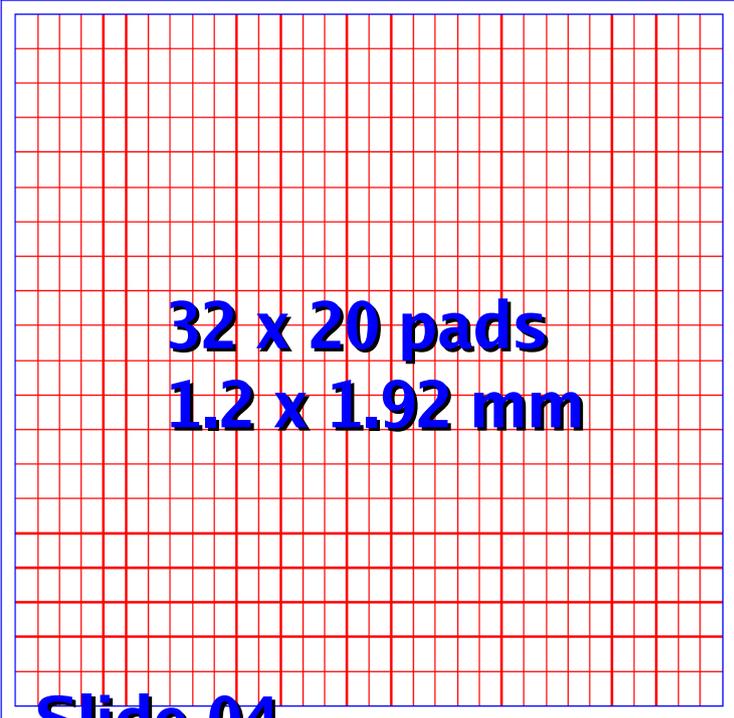
IST sensors



**640 strips
60um pitch**

Silicon Strip

Silicon Pad



**32 x 20 pads
1.2 x 1.92 mm**

For the readout the pad sensors are identical to the strip sensors: 640 ch.

Sensor requirements

Handle central Au+Au 200 GeV occupancies

Good pointing resolution to HFT

Low probability of ambiguous hits

Simple = inexpensive and easy construction

Good efficiency

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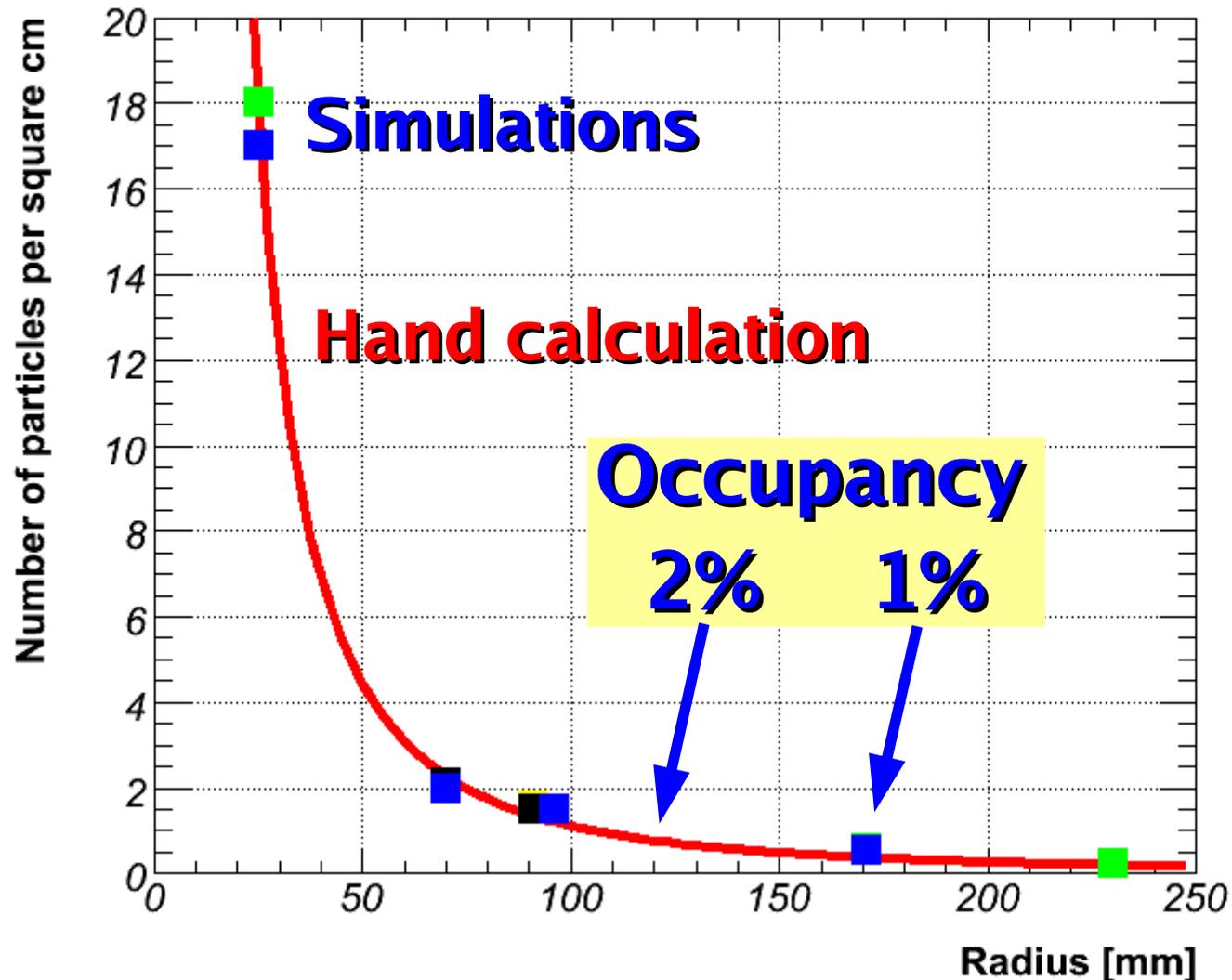
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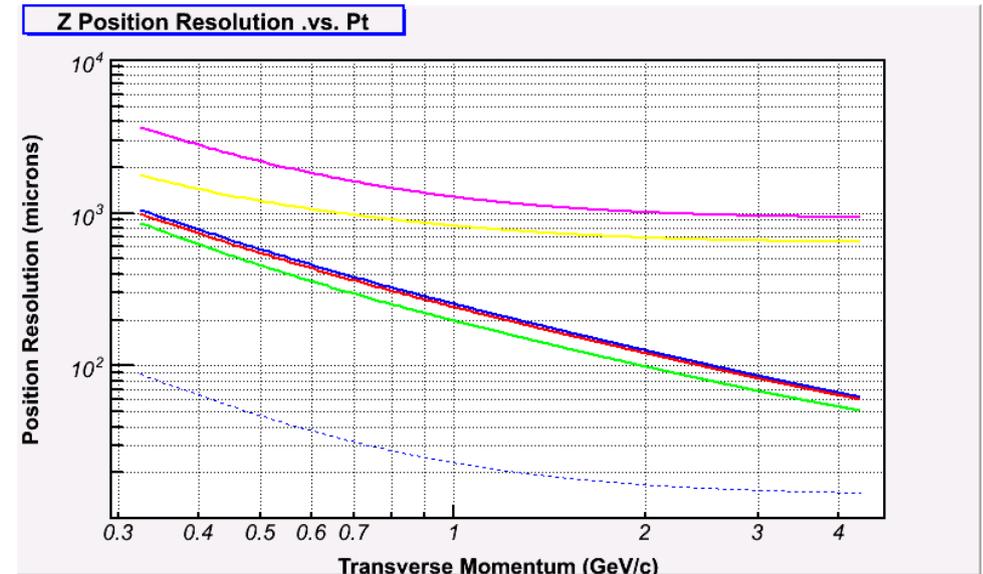
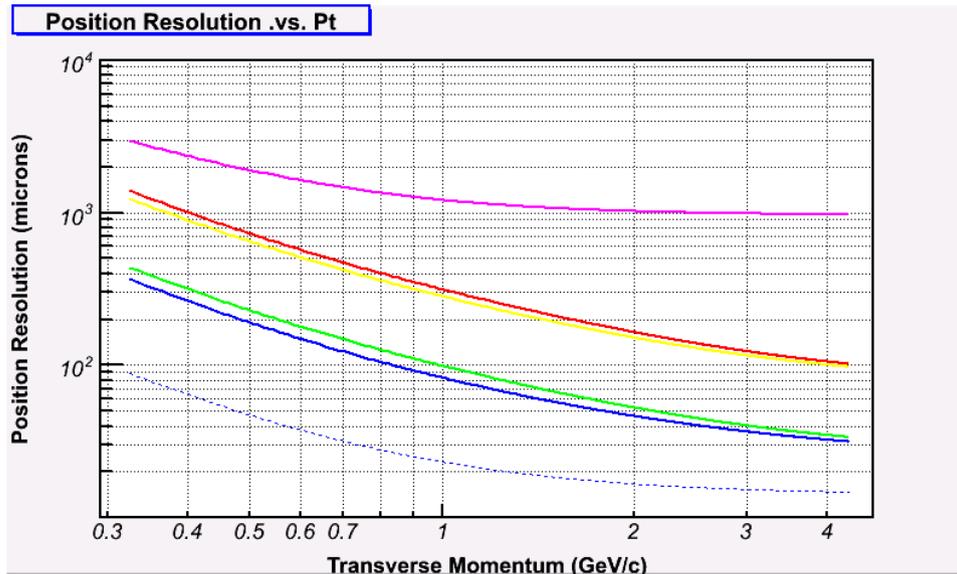
**My aim is not to defend silicon pads,
but to find the simplest IST design
that will meet the requirements!**

Expected particle densities

Particle Density for Central Au+Au@200 GeV (700/unitrap)

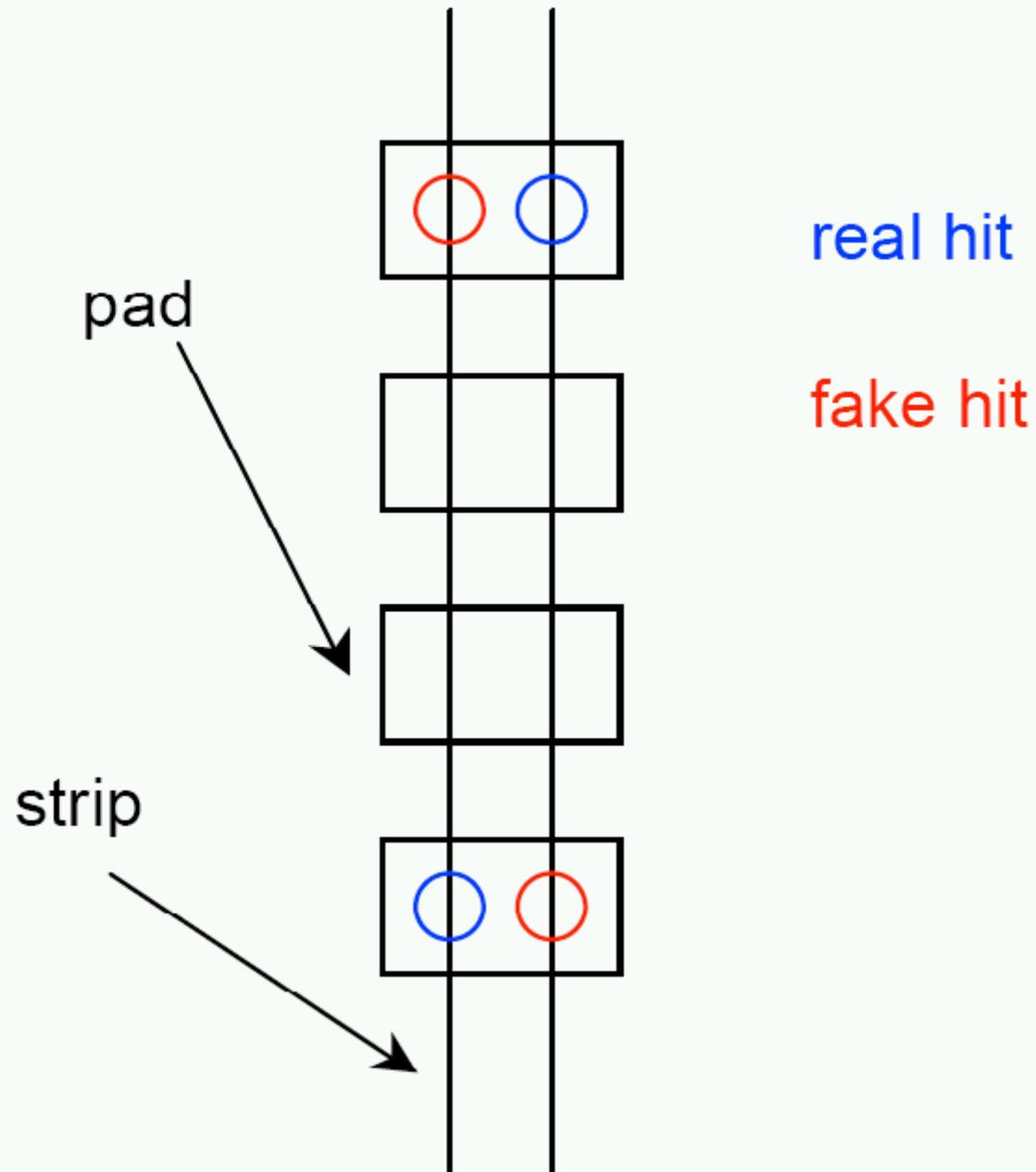


Pointing resolution to HFT

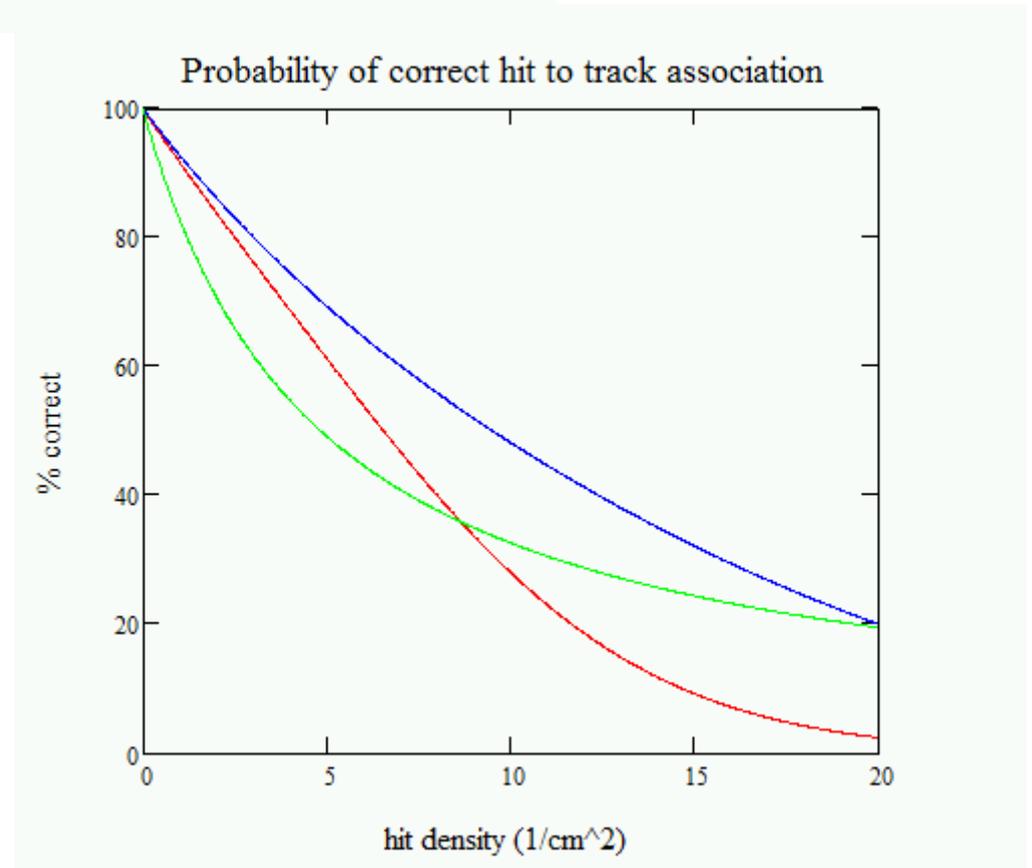
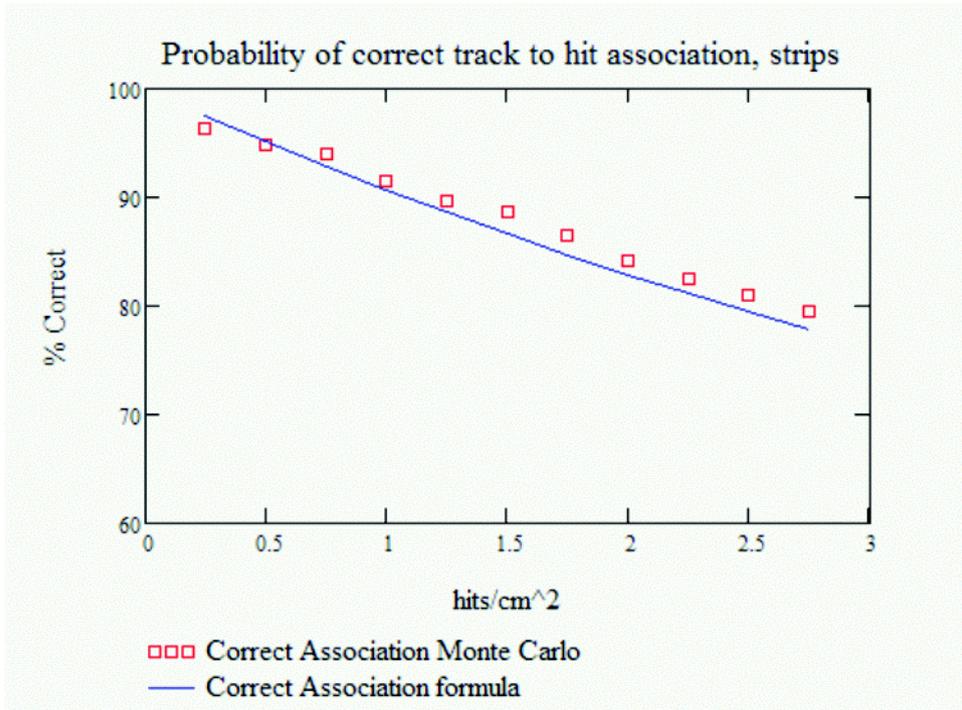
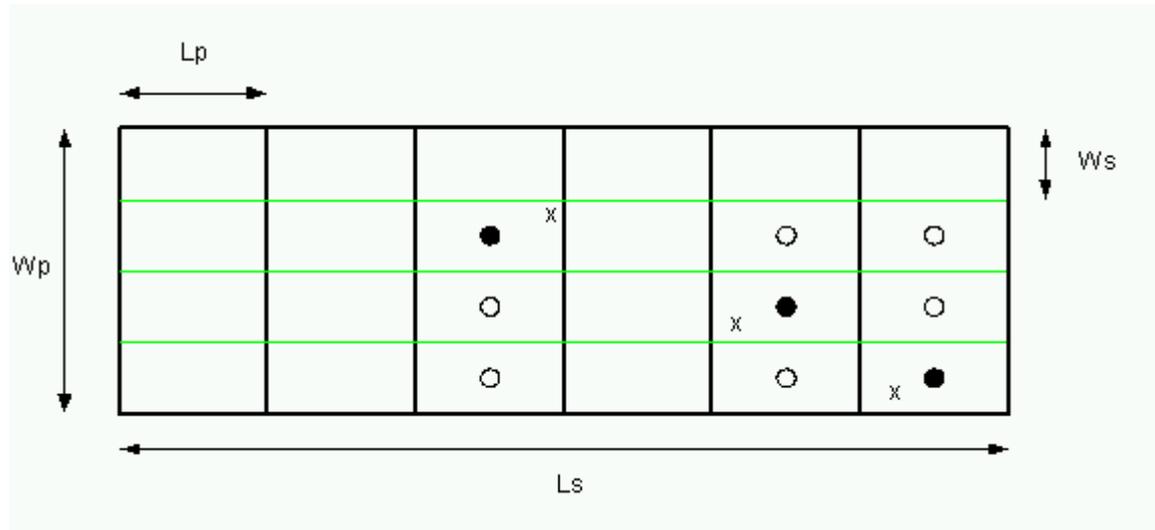


Black	ist1	ist1'	ist2	ist2'	ssd	tpc	153/404
Blue	ist1		ist2		ssd	tpc	113/349
Green	ist1		ist2			tpc	136/271
Red			ist2		ssd	tpc	431/332
Yellow					ssd	tpc	386/934
Magenta						tpc	1396/1521

Ambiguous hits



Probability of finding right hit



Efficiency

Figure of merit is the D0 reconstruction efficiency

We have this for the pad/strip configuration

Needs a lot of statistics

For the case of a strip-only IST we need a new geometry

AND this geometry needs to be propagated through the analysis chain

Keep it simple!

