PARIS-GASPARD Synergy WG
Krakow - Octo. 15th, 2009

Introduction

GASPARD geometries - Didier Beaumel

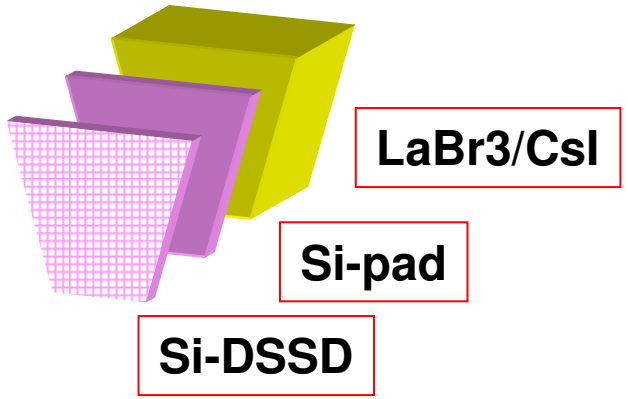
PARIS geometries - John Strachan

General discussion

Synergy between GASPARD and PARIS

Originally thought because two gamma arrays were meant.

3-stage telescopes under vaccum



~ 15000 channels

GASPARD has decided to concentrate on the particle detection and to have the calorimeter only dedicated to gammas and not to light charged particles anymore

→ The gamma array can now be in a non-vaccuum environment

The pression is now moved to the GASPARD team

→ GASPARD wants to be able to couple to different gamma arrays, PARIS, AGATA…

Gamma Specifications of GASPARD are included in the PARIS specs

Want to make sure that electronics and cabling won't drastically kill the gamma efficiency

… but also that the PARIS array is allowing for the 15000 signals from GASPARD to go through….

→ The synergy has moved from crystal choise to mechanical design simulations and electronics issues.

Paris-GASPARD Synergy WG

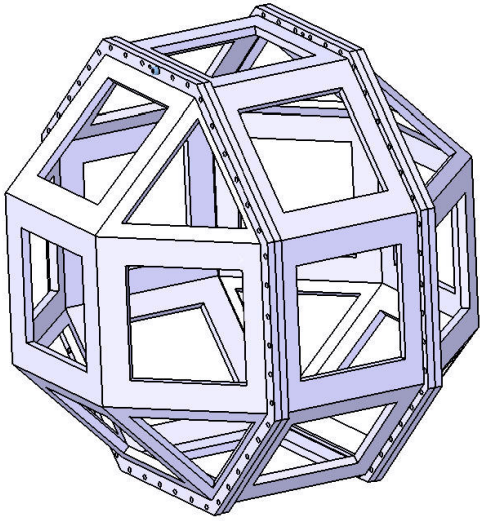
could be renamed to

Paris-GASPARD Coordination WG

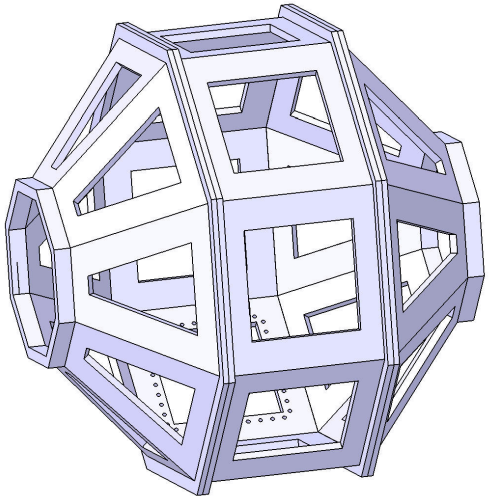
Mechanical design

- **Fit inside the Agatha diameter (R 230mm)**
- **Use 4 inches silicon detectors**
- **Distance to target ~150 mm**

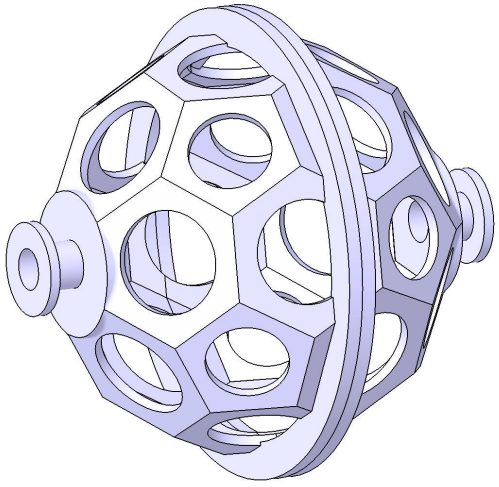
Isolde ball
(Barrel + 2 end-caps)

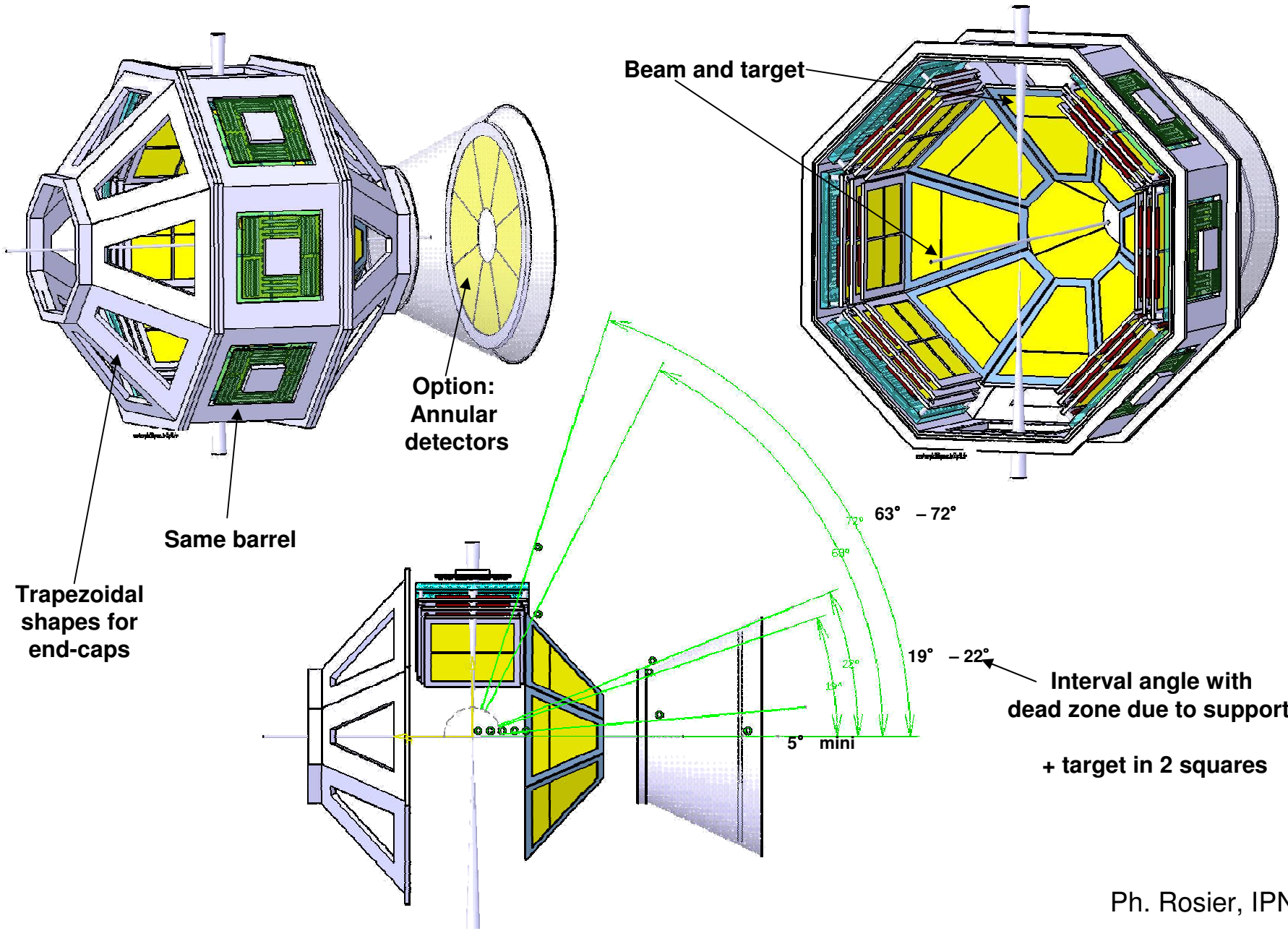


Hyde
(Same barrel but 2 different end-caps)



Truncated icosahedra

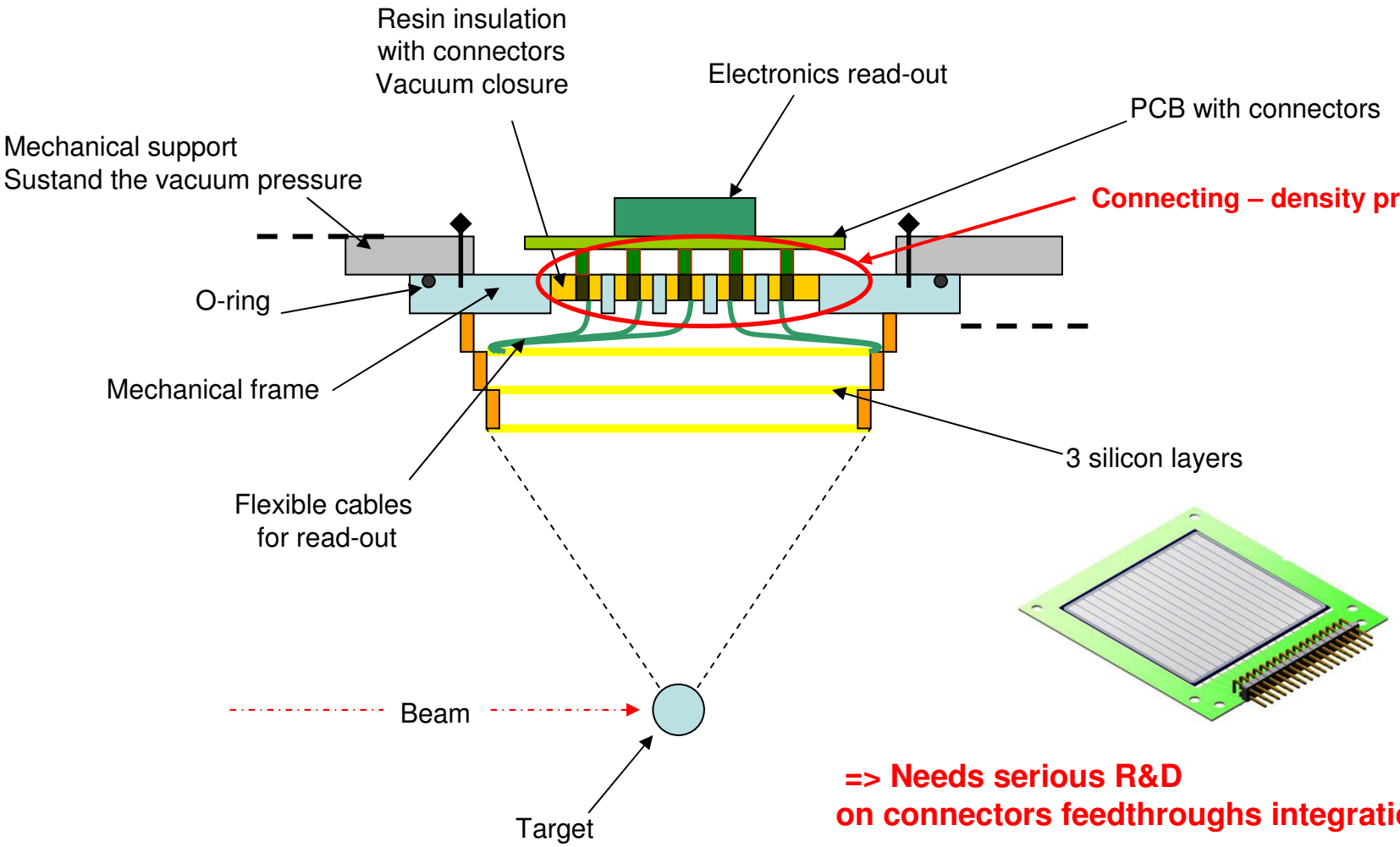




Ph. Rosier, IPNO

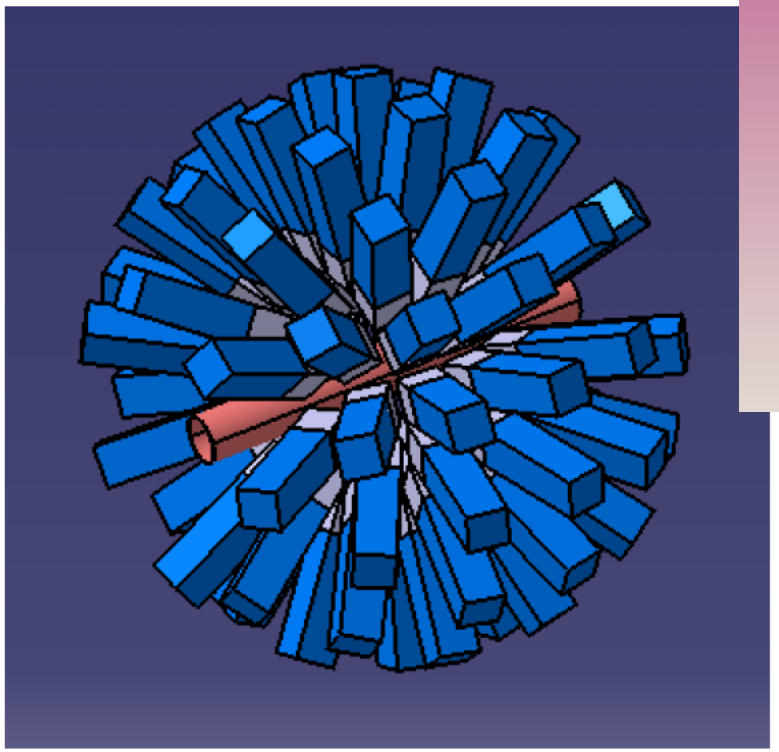
Integration principle

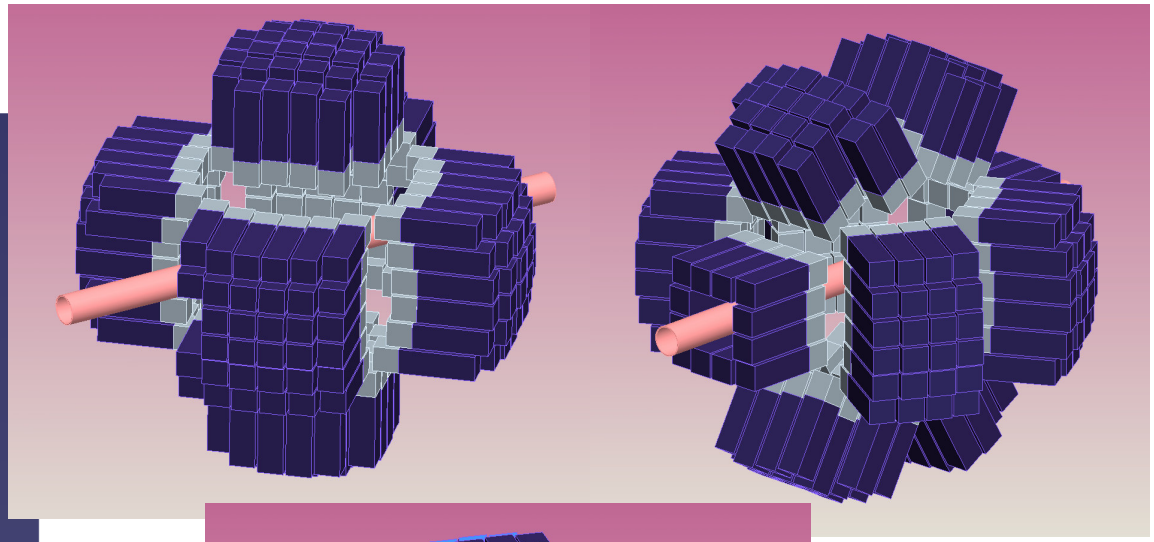
Integrate silicon detectors inside a vacuum 4π detector with electronics outside

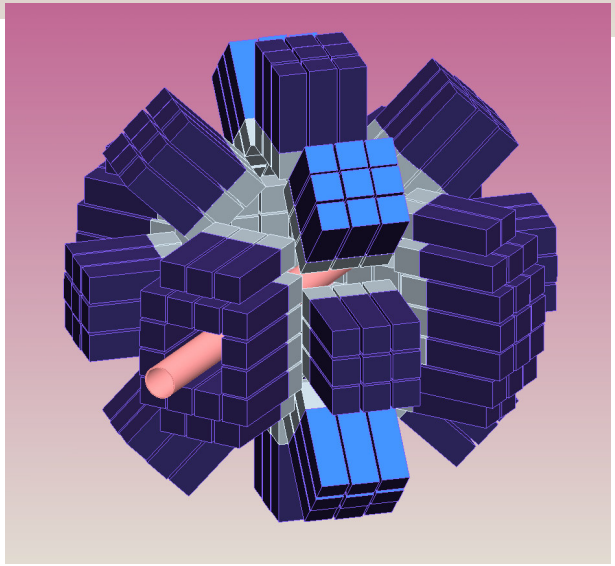


=> Needs serious R&D
on connectors feedthroughs integration

Layouts for Simulation comparision







PARIS