

LNf Setup Status

R. de Sangro

Work in Progress

- **Prototype (v1.0) Construction**

- wiring complete
- electronics ready to be installed
- Prototype is filled with 80% He – 20% iC_4H_{10} gas mixture now, gas tight

- **Mechanical Integration**

- mechanical precision coupling of external tracker and Proto 1.0 to be done

- **DAQ**

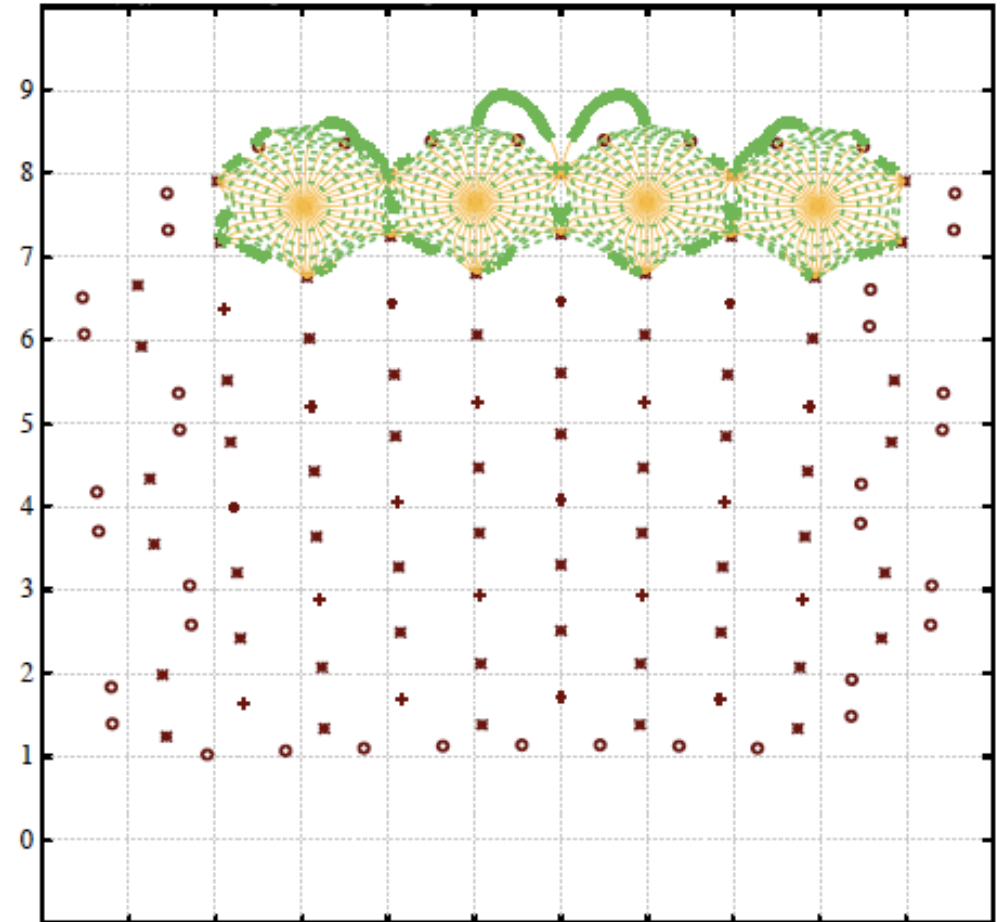
- to be updated to acquire Proto 1.0 + external tracker

- **Offline**

- ready to fit tracks, geometry constants need to be upgraded to extrapolate the tracks in the Proto 1.0 cells

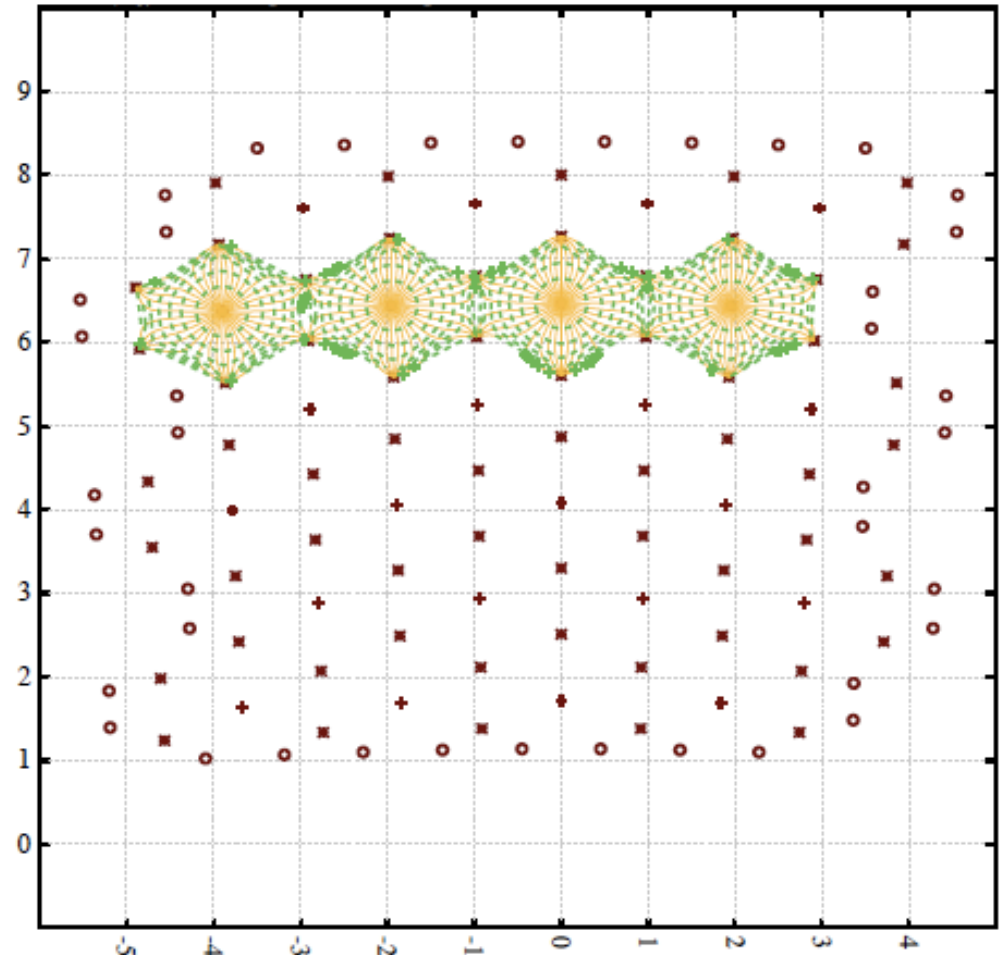
Prototype Layout

- Cell geometry à la BaBar
- $4 \times 6 = 24$ hexagonal cells, all instrumented
- 60 field wires, 40 guard wires total 124 wires
- Wires
 - sense: W, $25 \mu\text{m}$ \varnothing ;
 - field: Al, $80 \mu\text{m}$ \varnothing
- pins: delrin 3mm \varnothing



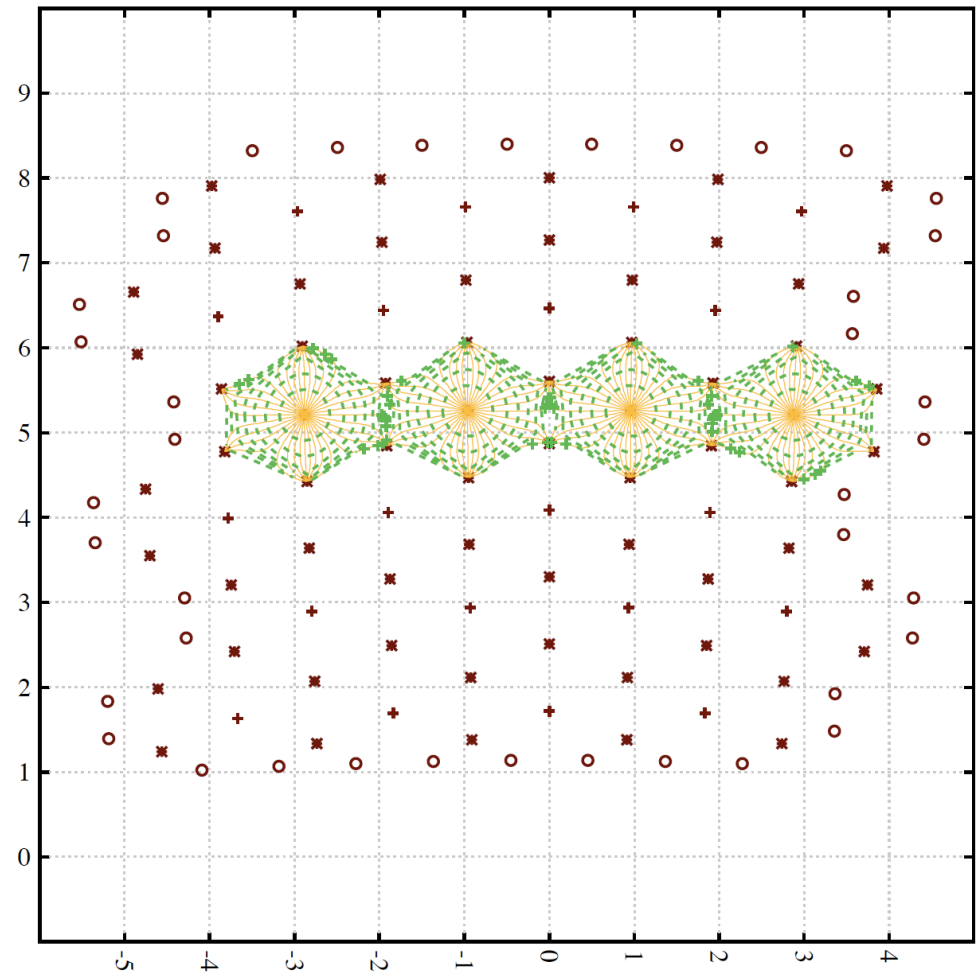
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 - field: Al, 80 μm \varnothing
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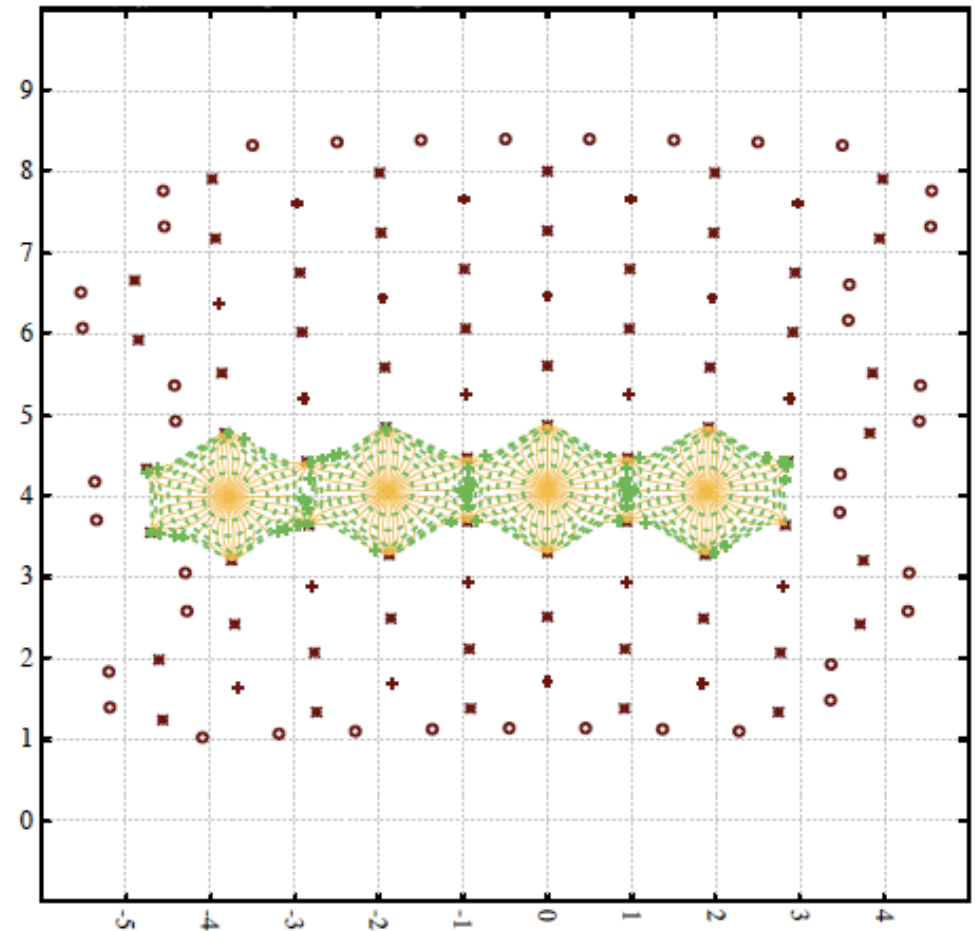
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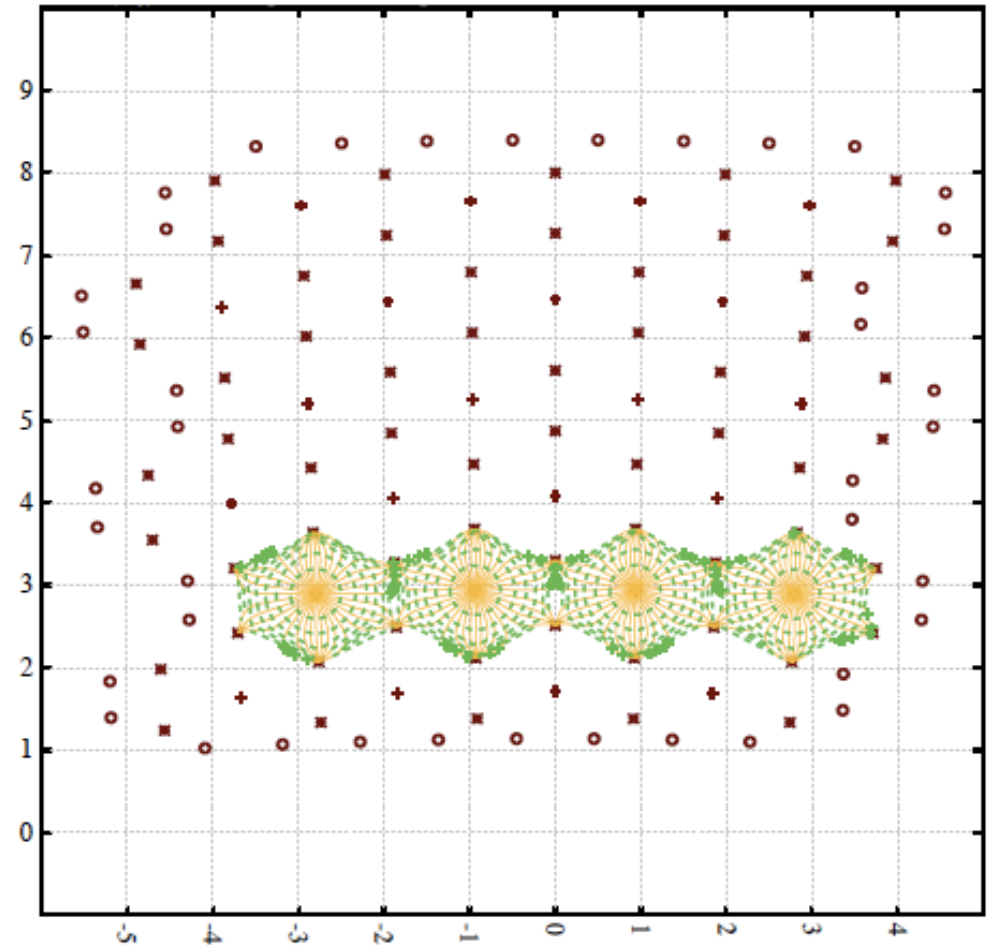
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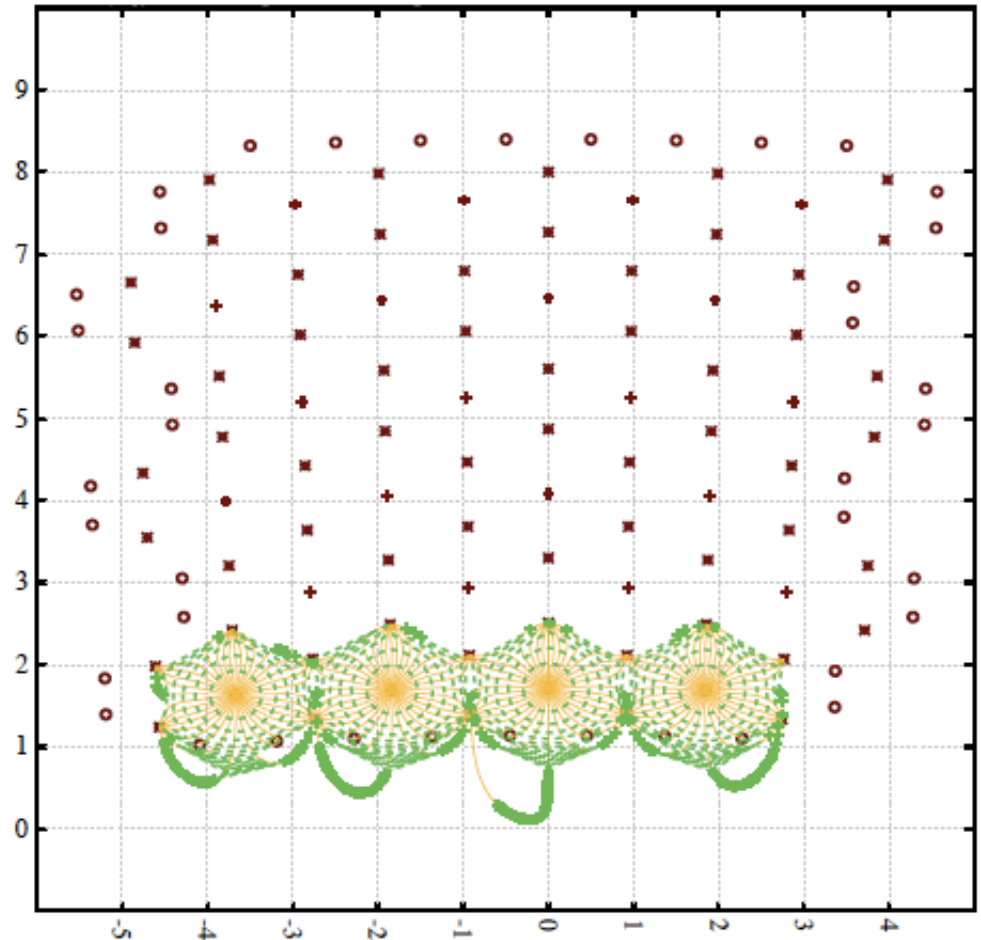
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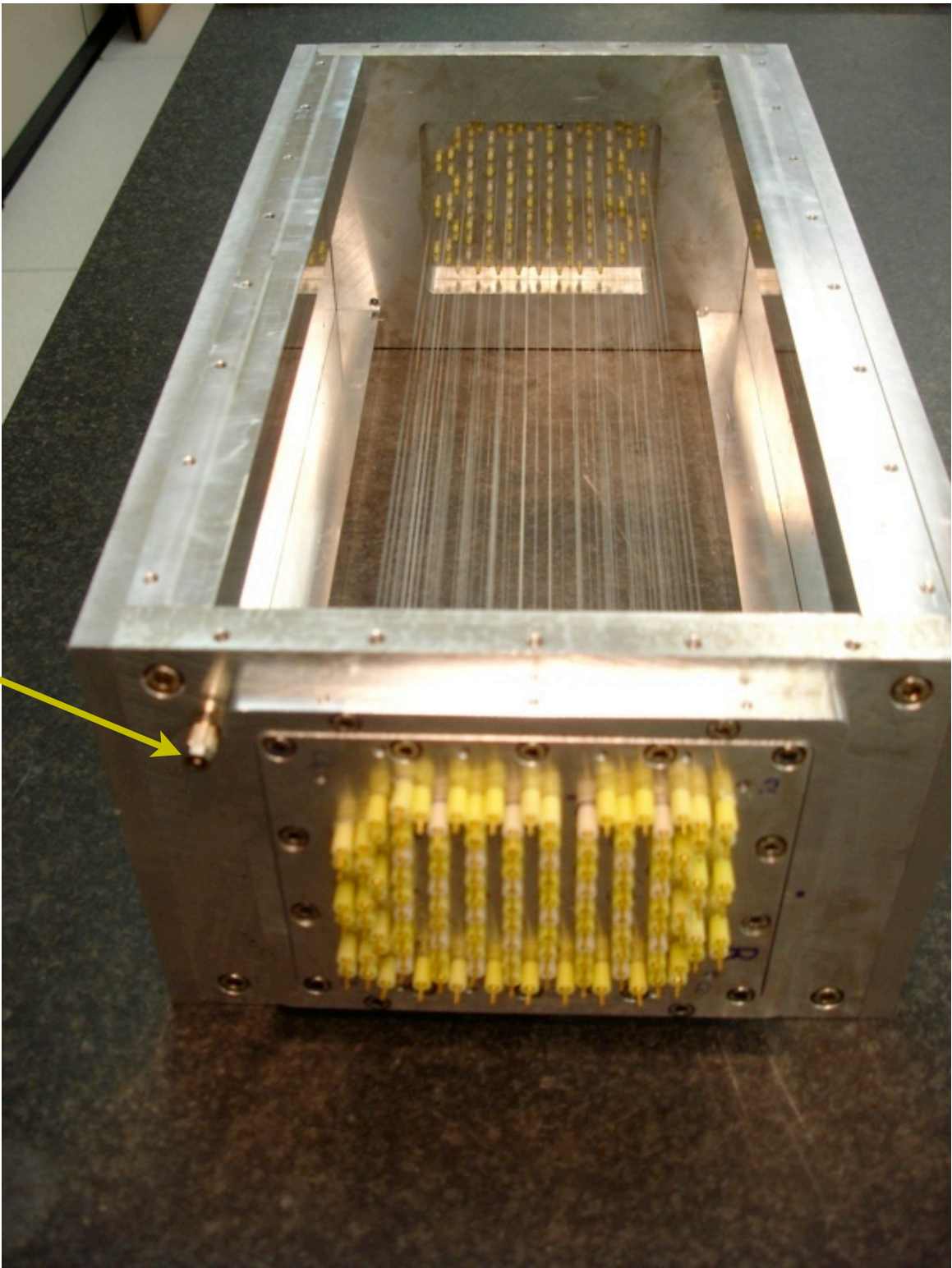
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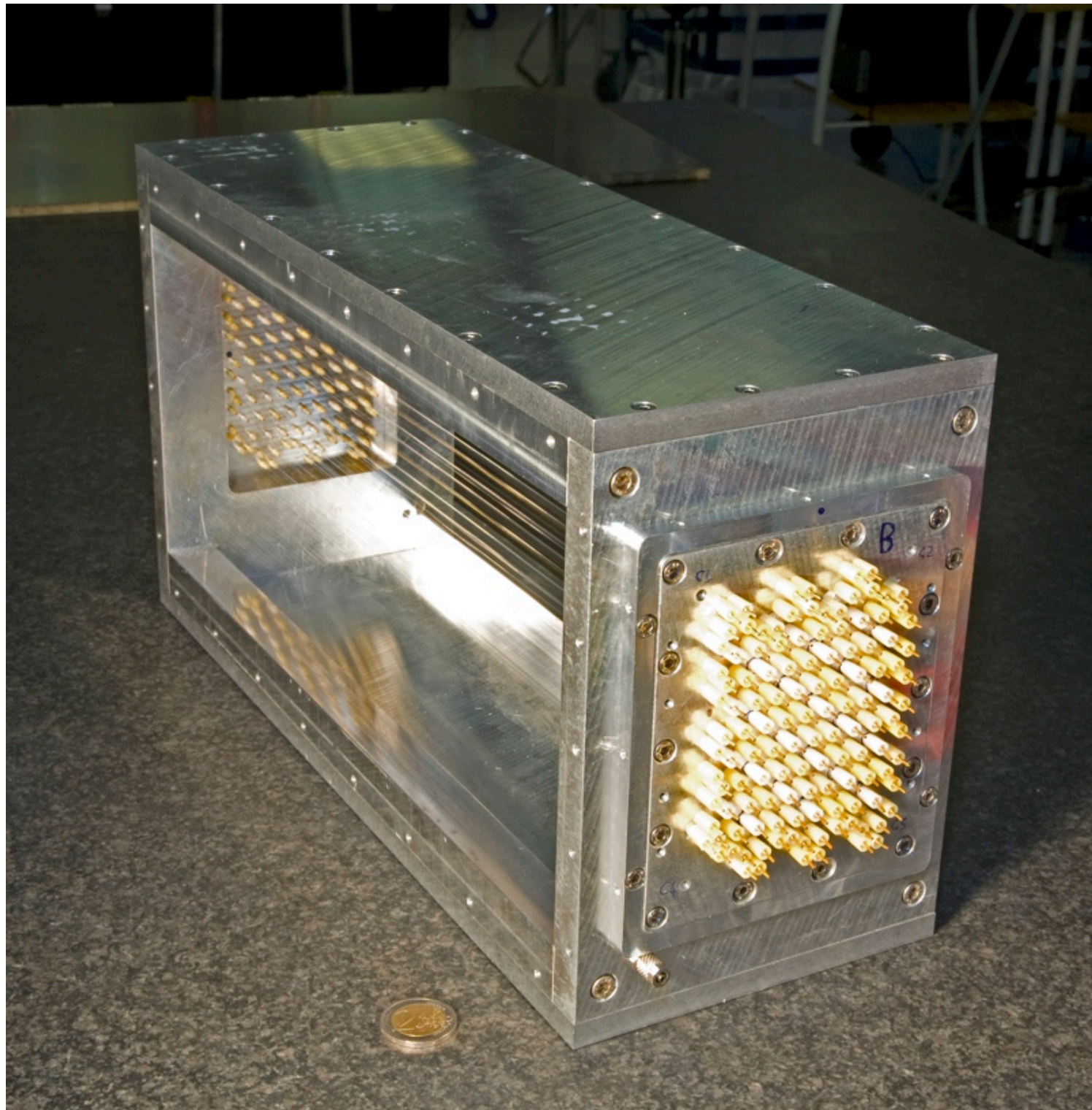
- Cell geometry à la BaBar
- $4 \times 6 = 24$ hexagonal cells, all instrumented
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124 wires
- Guard wires guarantee uniformity of electric field among cells down to $\sim 1\%$
- Wires
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 - field: Al, $80 \mu\text{m} \varnothing$
- pins: delrin $3\text{mm} \varnothing$





Gas Fitting

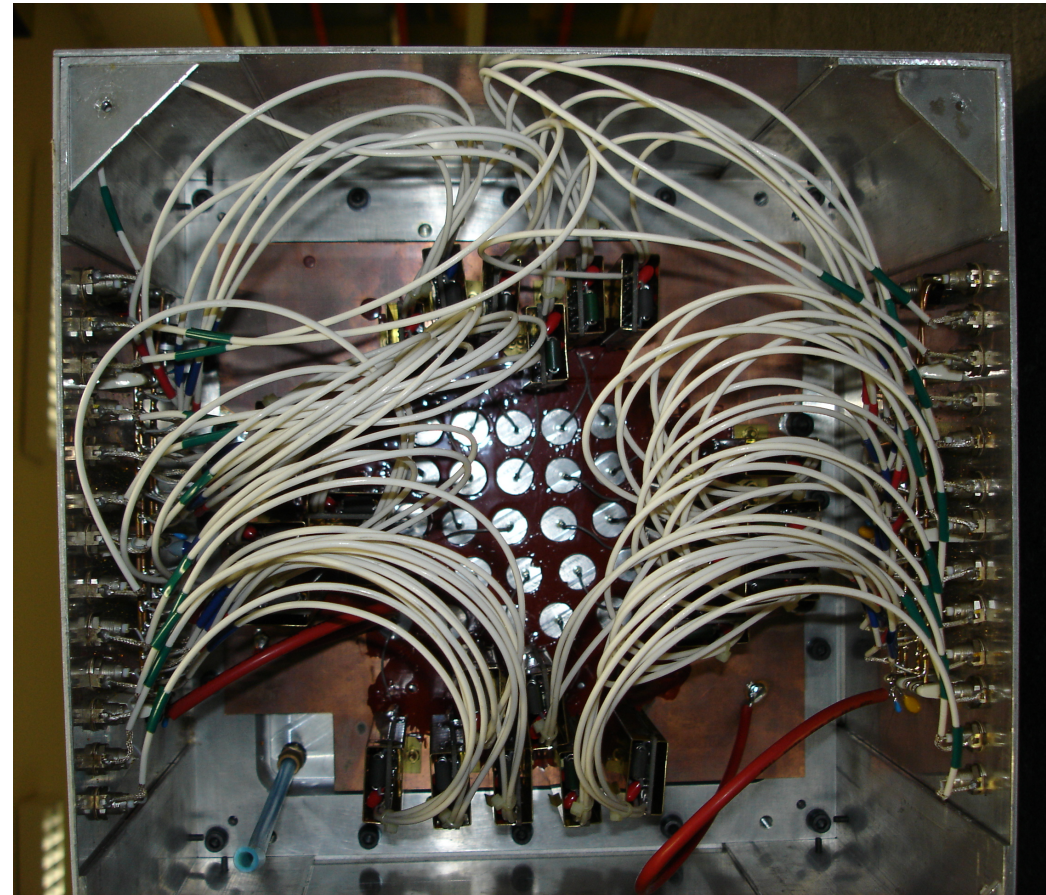




Cluster Counting Tests

PLAN

- Instrument KLOE prototype with:
 - 2-3 channels of CC electronics developed in Frascati
 - 2-3 channels of CC electronics from Lecce
 - 2-3 channels of CC electronics from J.Vav'ra



Plans for December

- Fully commission prototype
- Complete DAQ to include MT and Proto 1.0
- Complete offline software to extrapolate tracks in the prototype cells
- First resolution plots with CR tracks extrapolated in the prototype cells with the external tracker