

ALCOR - dRICH Readout

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INFN Torino

ePIC Electronics & DAQ WG meeting
ASICs & Electronics Monthly Progress Reports

July 02, 2026

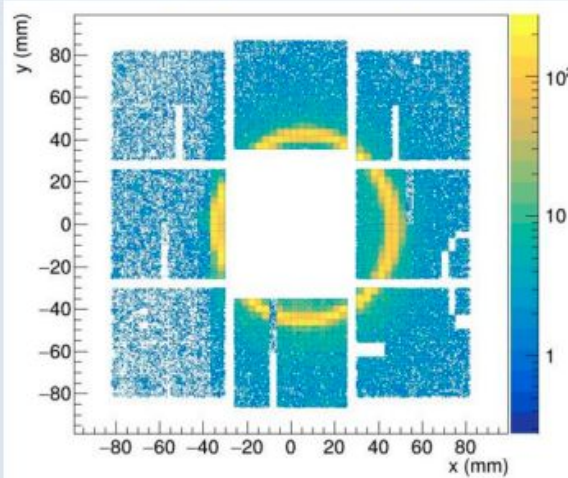
ALCOR-64 updates

- **Issues on ALCOR-64 packaging** due to UBM process → found IMEC OSAT supporting **UBM + bumping on single dies**
 - Electroless UBM deposition (Ni/Pd/Au) → dies are mounted on a dicing frame with UV tape allowing UBM on individual dies
 - Laser-based solder bumping → does not require stencil printing (mask)
 - Quotation and lead-times estimates received last month
- **Target Tapeout: MPW run on 11th Sep 2026**
 - ✓ Funding Secured: all INFN administrative work required to cover the new MPW costs has been completed
 - IMEC communicated today that PO must be finalized much earlier than previously scheduled, not sure this will fit within the standard INFN administrative PO workflow
 - Next MPW: Dec 2026

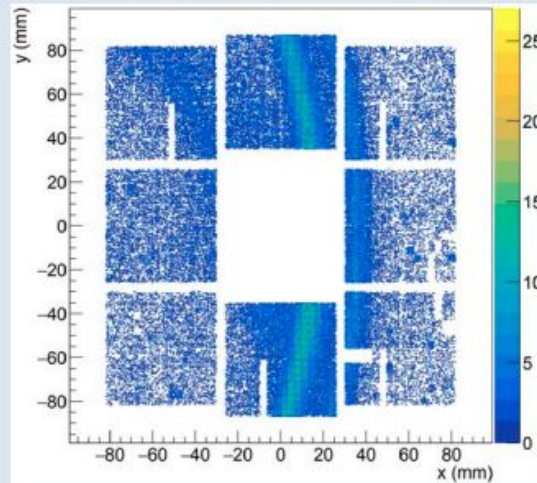
Beam Tests (dRICH full scale prototype)

- CERN SPS (27 May - 5 June, 20-180 GeV/c)
- CERN PS (10-24 June, 2-11 GeV/c)

C_2F_6 at 180 GeV/c



Aerogel at 10 GeV/c



- 64 **ALCOR-32** → 2048 channels read by **8 RDO** cards (8 PDUs)
- SiPM: HPK S13360-3050 and S13360-3075 ($3 \times 3 \text{ mm}^2$, $T \approx -20^\circ\text{C}$)

