Updates

- Simulation
- Vacuum window
- Vacuum chamber alternatives
- Metadata (start of run, clock, beam properties...)
- Testbeam
- CSTD
Simulation

• Available:
  − Basic detector element in place
  − Several geometries:
    • 2 and 3 detection planes
    • 0.5, 1, 1.5, 2% $X_0$ thickness of beam windows

• Ongoing studies
  • Signal: track angular resolution, hit efficiency (vs threshold: 150 → 250 eV)
  • Hit multiplicity, deposition of energy deposits
  • Backgrounds:
    rates and spectra at various scoring planes
    photon detection rates
Simulation

<table>
<thead>
<tr>
<th>Layer</th>
<th>Thickness (μm)</th>
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<tr>
<td>Copper</td>
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Simulation
Simulation
Simulation
Simulation

- Electrons
Simulation

- Photons
Vacuum window

- Discussion avec Eddy, Bertrand + David Pinieiro ici et autres de NA48 (N.Doble,..)
- Solution possible (realisation NA48 : 2.4m diametre, 1mm Kevlar, ~0.3-0.5 $X_0$)
  - Resistance $\Delta P > 3-4$ atm
Vacuum chamber alternatives

- Main:

Safety issues?
Vacuum chamber alternatives

- Alternative (unlikely, but being discussed)
Metadata (start of run, clock, beam properties...)

- Not fully defined for the main experiment.
- Main idea is to distribute a system clock and beam polarization bit to all sub-systems
- Meeting during February with
  - From Mainz: S.Baunack, F.Maas, N.Berger (fwd tracker), ..
  - Michael Gericke (Manitoba) who has most ideas of this
  - ...
  
to discuss / fix ideas. I let you know
Testbeam

- Semaine du 4 au 8 avril réservée pour P2, à MAMI
- Ideas:
  - Electrons : efficiency, charge distributions, multiplicity
  - Photon background (eg using foil in beamline, magnet for e/γ separation, …)

with existing prototype + readout (?)

- Feedback?
  - Other measurements of interest?
  - Availability, preparation, …
CSTD

• Le 30 mars. Si c’est en personne, 1-2 personnes de Mainz viendront
• Document ~10 pages pour le 20 mars
  – Rapporteur interne JF Laporte
  – Rapporteur externe TDB
• Rapport le 27 mars