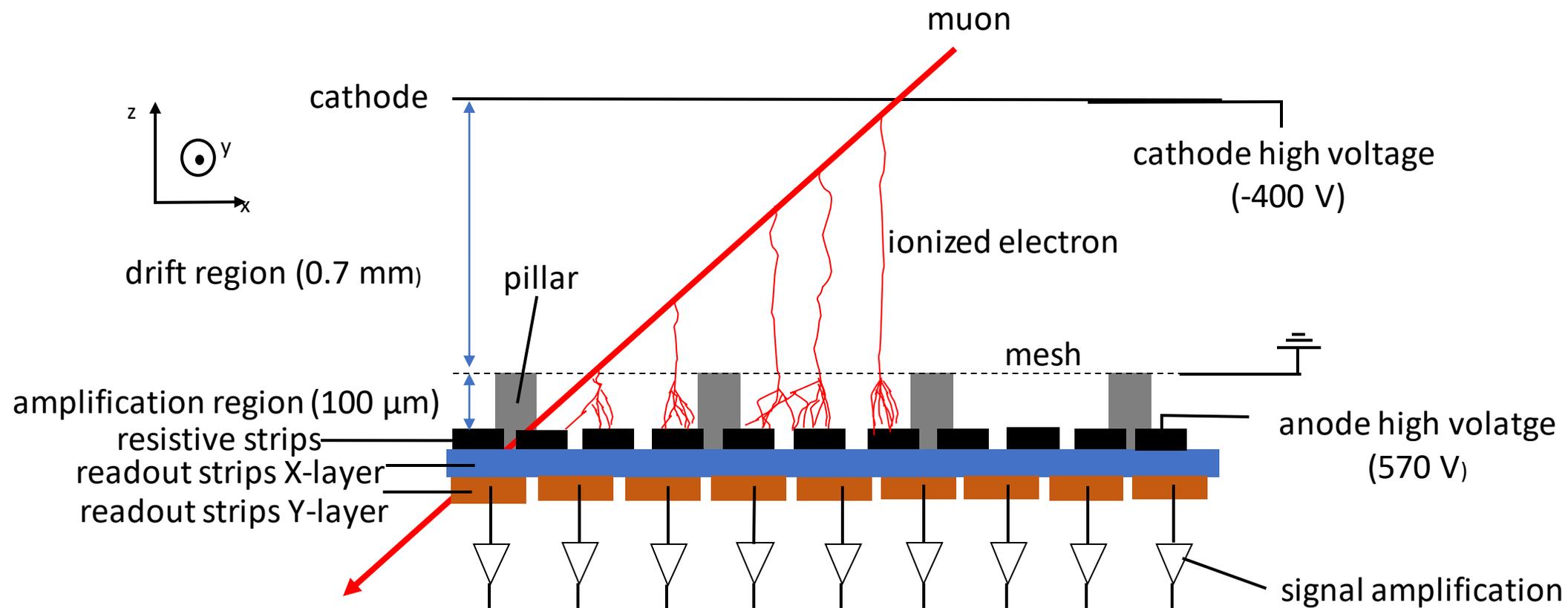


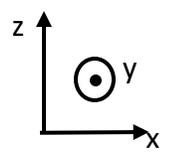
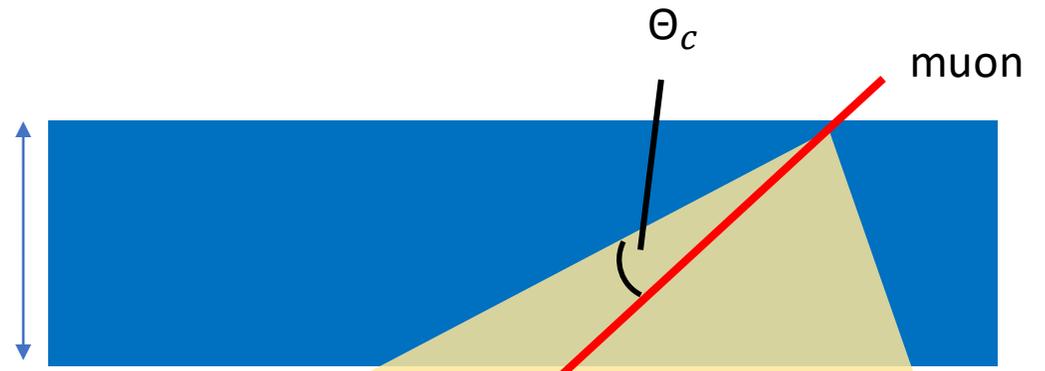
Development of a Cherenkov Micromegas

Daniel Grewe



$$\cos(\Theta_c) = \frac{1}{n\beta}$$

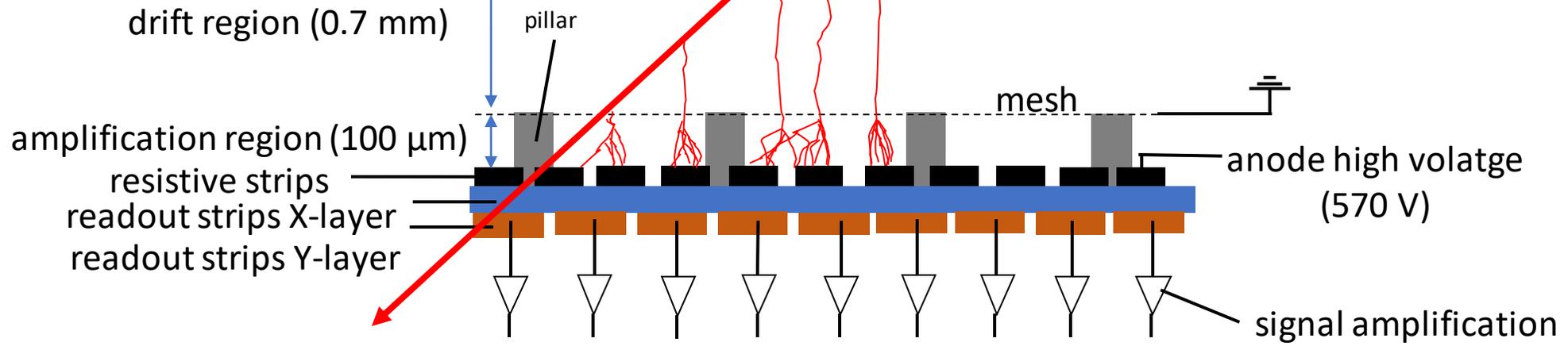
cherenkov radiator (LiF) ≈ 20 mm



drift region (0.7 mm)

Ar:CO₂

ionized electron



muon

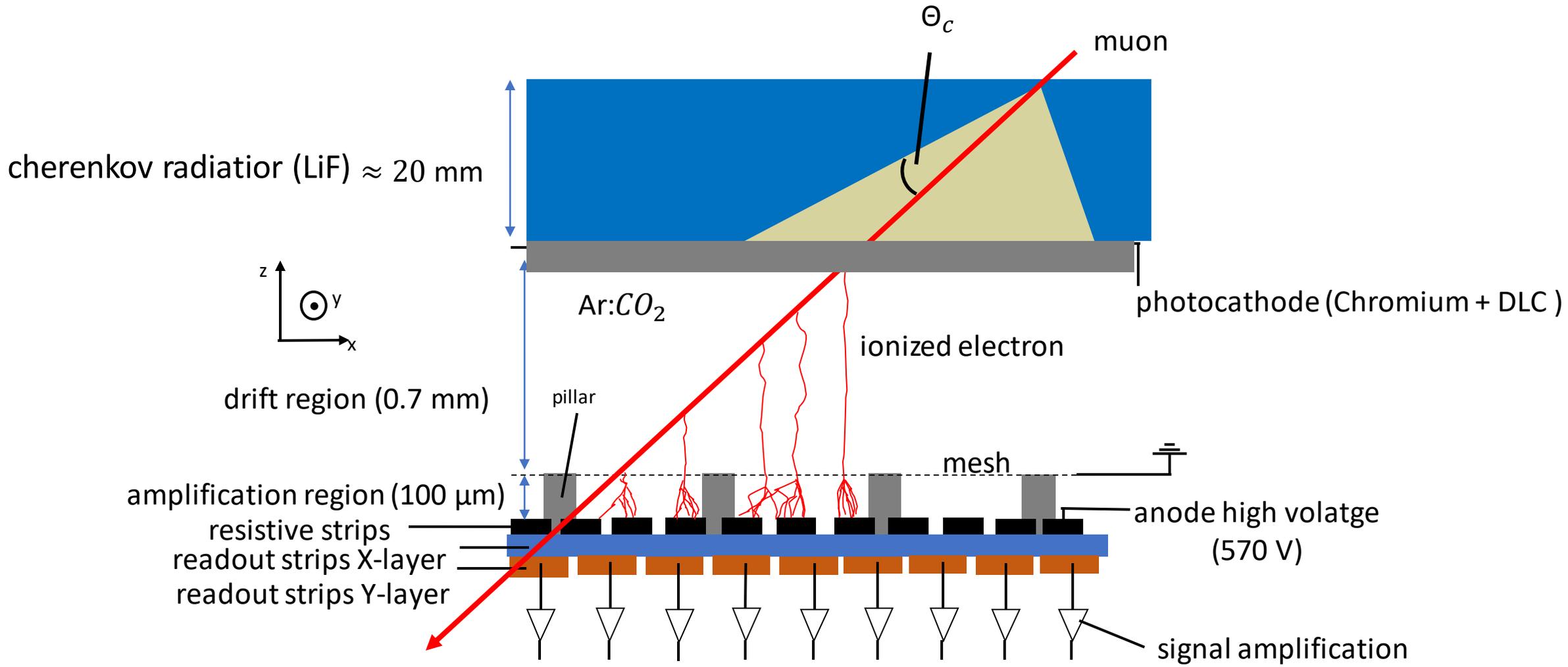
pillar

mesh

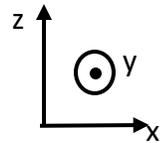
anode high volatge (570 V)

signal amplification

$$\cos(\Theta_c) = \frac{1}{n\beta}$$



Cherenkov radiator (LiF) \approx 20 mm



drift region (0.7 mm)

amplification region (100 μm)

- resistive strips
- readout strips X-layer
- readout strips Y-layer

muon

Θ_c

Ar:CO₂

photocathode (Chromium + DLC)

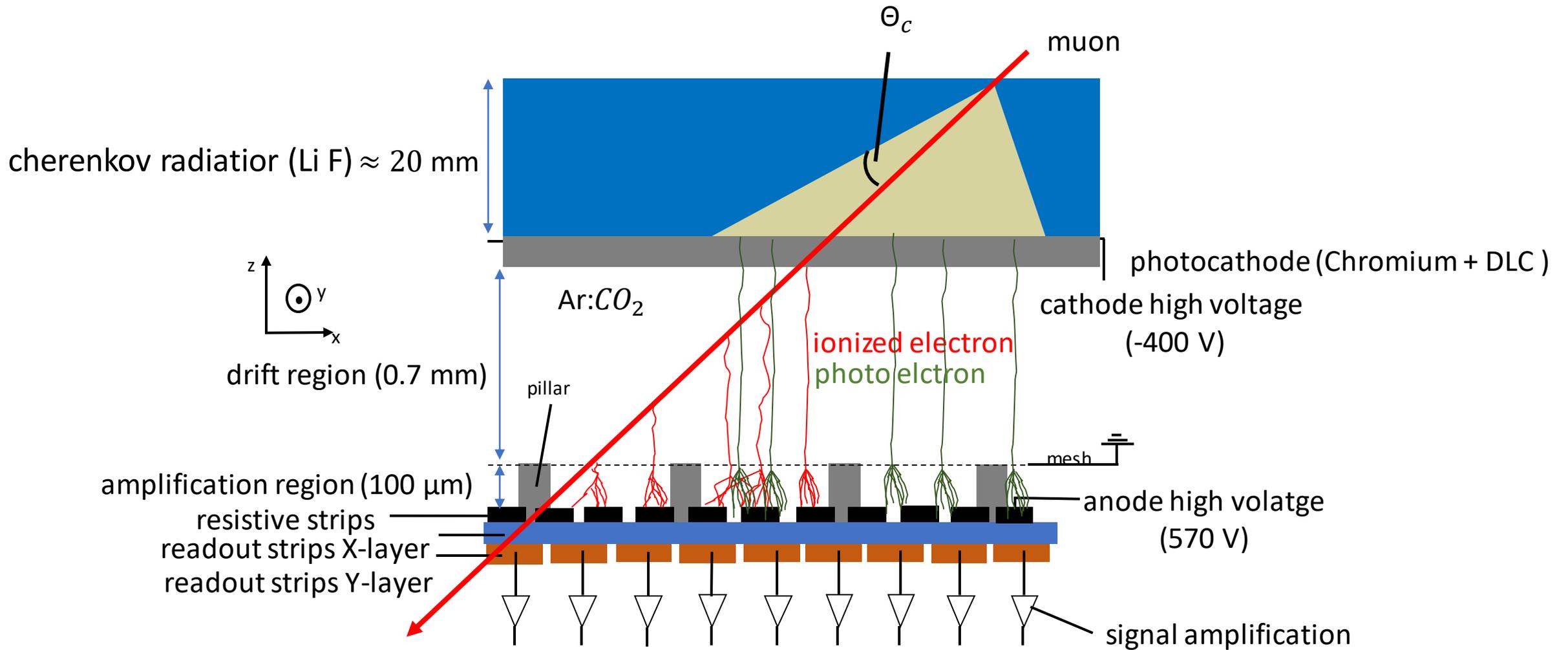
ionized electron

pillar

mesh

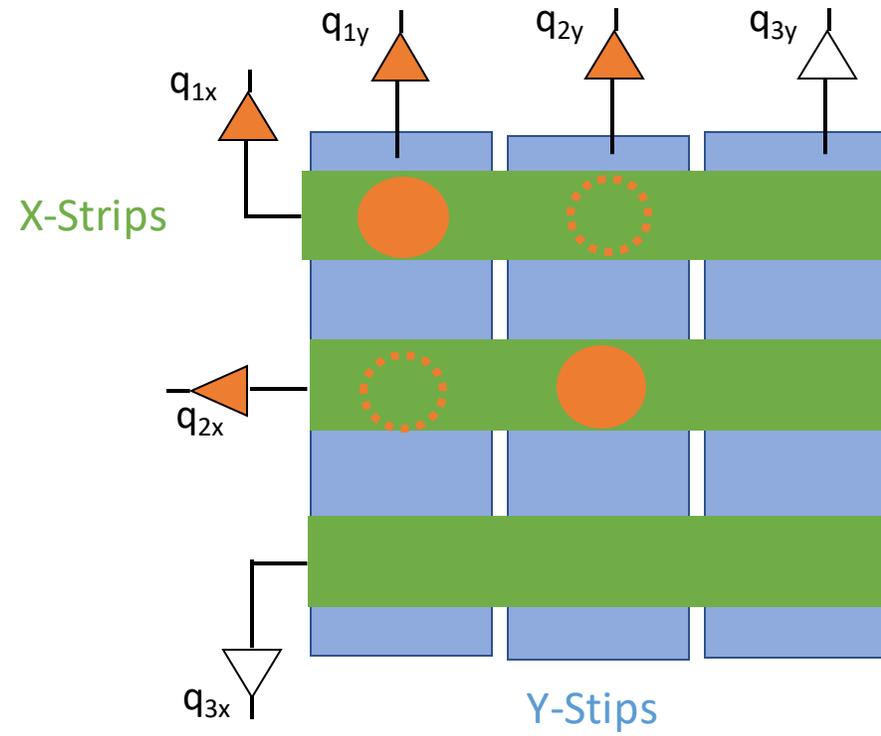
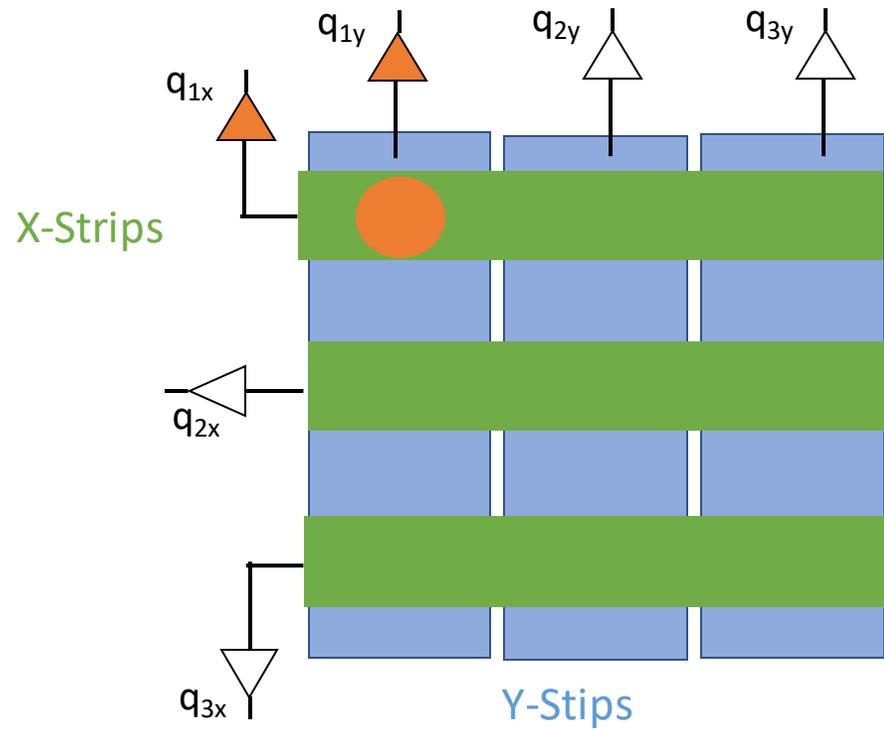
anode high voltage (570 V)

signal amplification

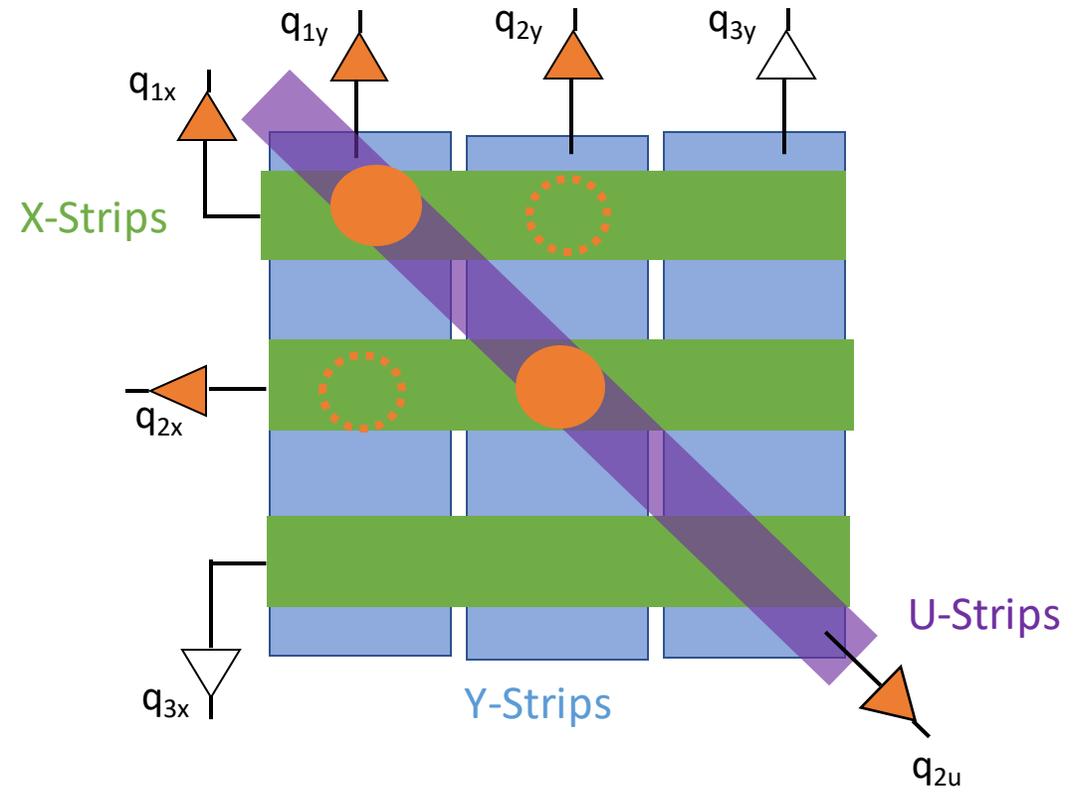
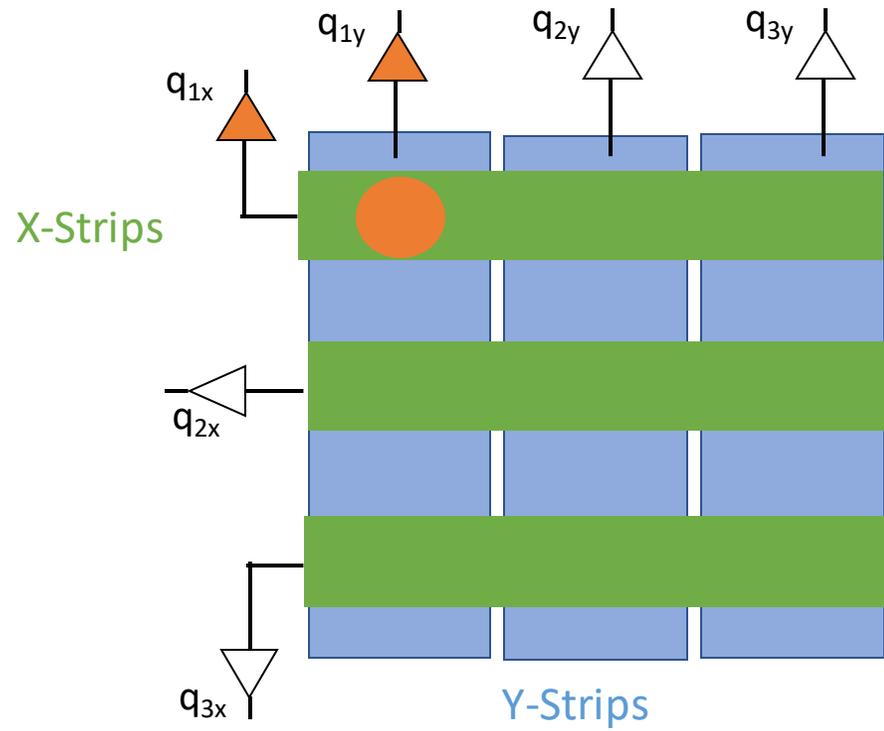


“Development of an Inverted Ring Imaging Cherenkov Micromegas” Maximilian Paul Rinnagel

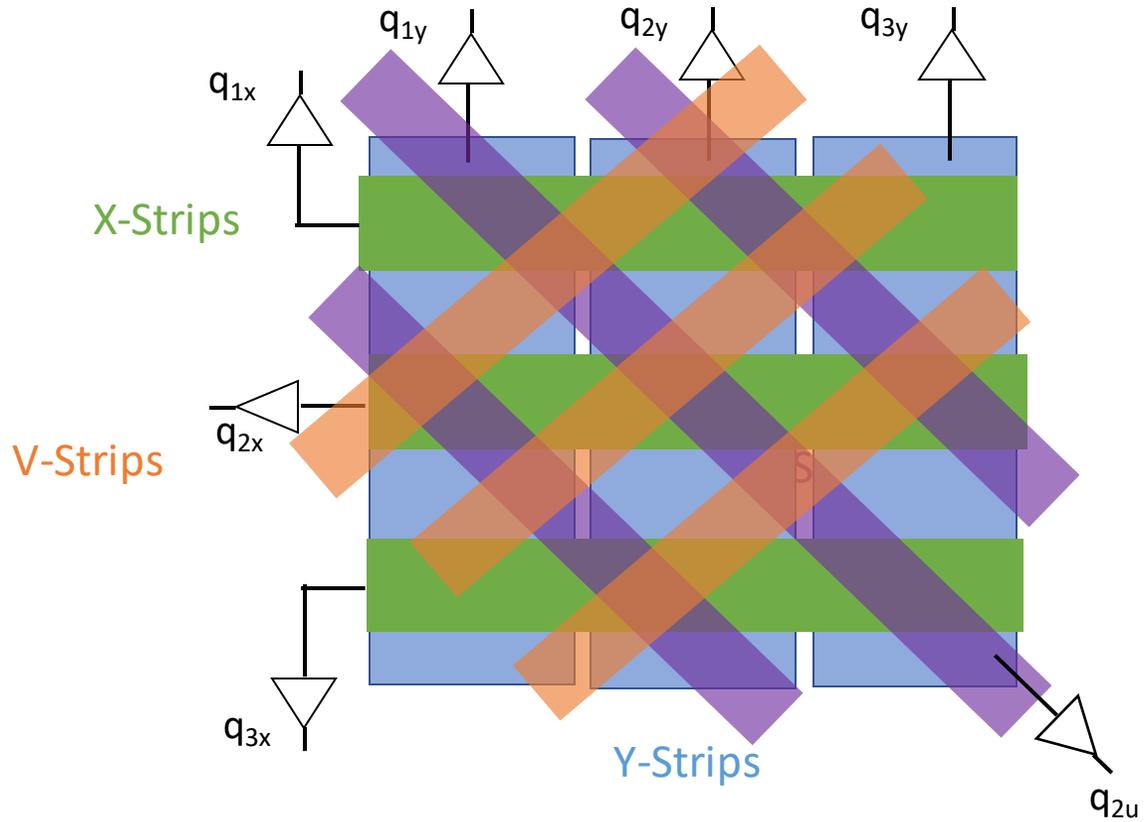
Problem:



Solution:



Solution:



”Research and Development of a Segmented GEM Readout Detector” Christoph Jagdfeld

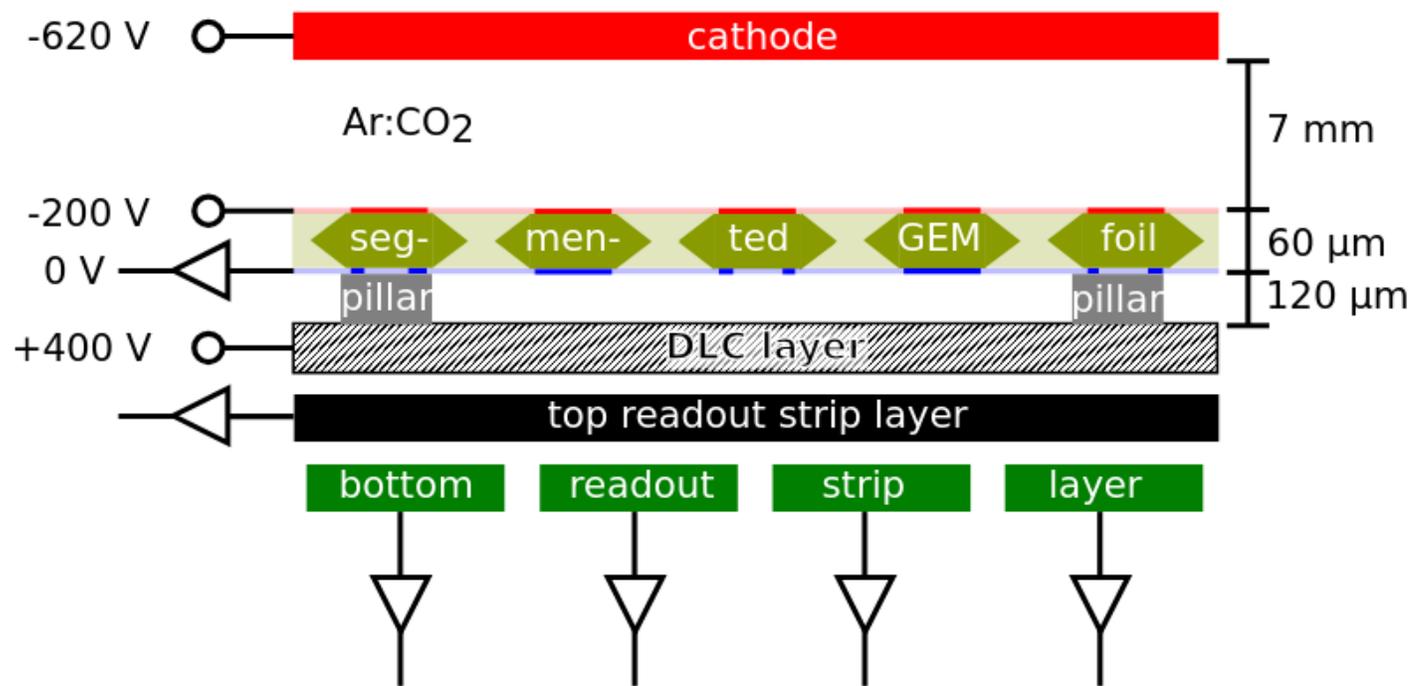


figure taken from : "Research and Development of a Segmented GEM Readout Detector" Christoph Jagdfeld

Final Goal:

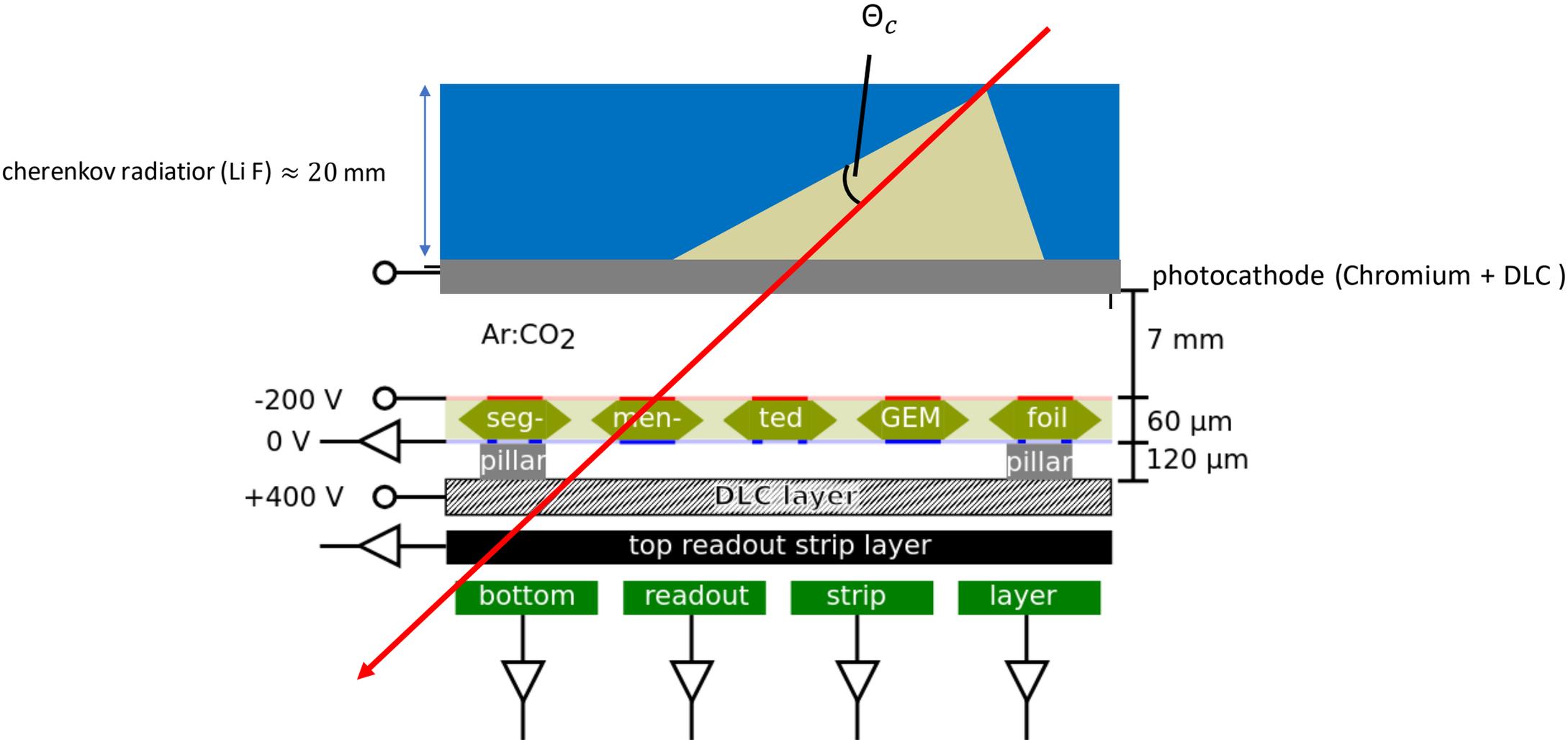


figure "Research and Development of a Segmented GEM Readout Detector" Christoph Jagdfeld