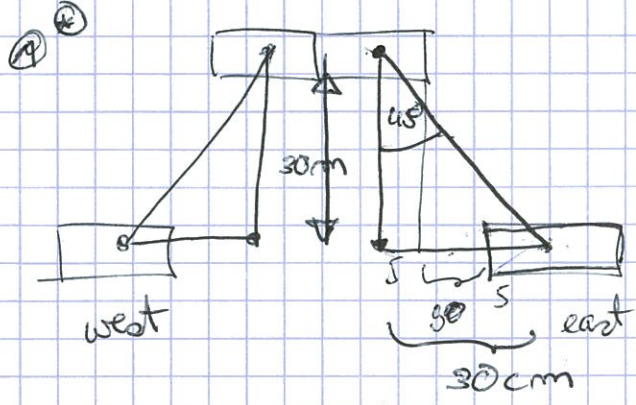


Proposal:

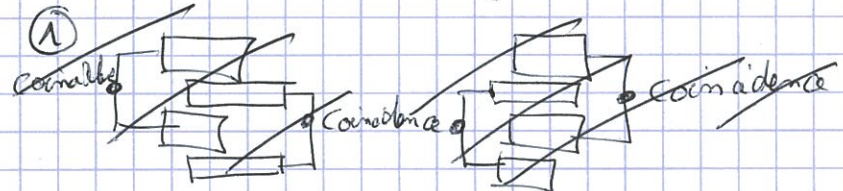
(q72@mibkef.nl)



$\cos^2 \theta$ - distribution of cosmic rays
 ↳ maximum at 45°

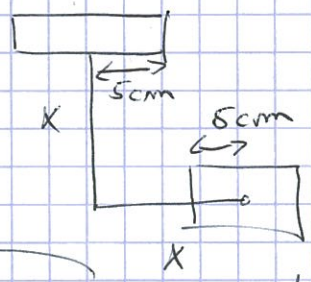
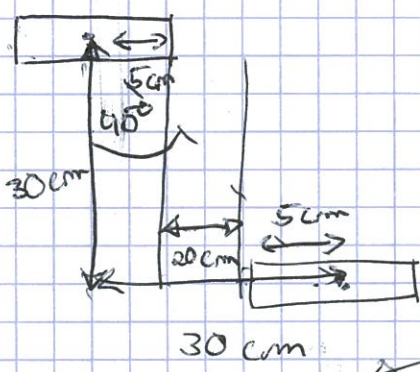
- expect: excess of positively charged particles from Cosmic rays
 - because of $\vec{F} = q \vec{v} \times \vec{B} \Rightarrow$ deflection of charged particles east / west

- uncertainties:
 - Coincidence measurement almost perfect
 - problem of different devices
 - ↳ measurement of the rates with the devices on top of each other and switching



• measurement: [circuit diagram] and [circuit diagram] and compare performance

(*)



$x = 1 \text{ m}$
 $\int_{0.1732}^{0.183} \cos^2(\theta) d\theta \approx 0,05$

$x = 30 \text{ cm}$
 $\int_{0,588}^{0,927} \cos^2(\theta) d\theta \approx 0,178$

$\Rightarrow x_{\min} = \arctan \frac{x-10}{x}$
 $x_{\max} = \arctan \frac{x+10}{x}$