Dual-radiator RICH: update

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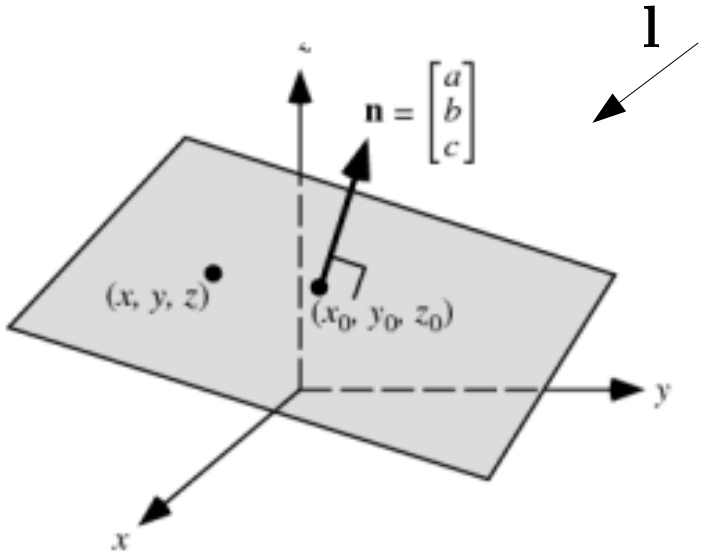
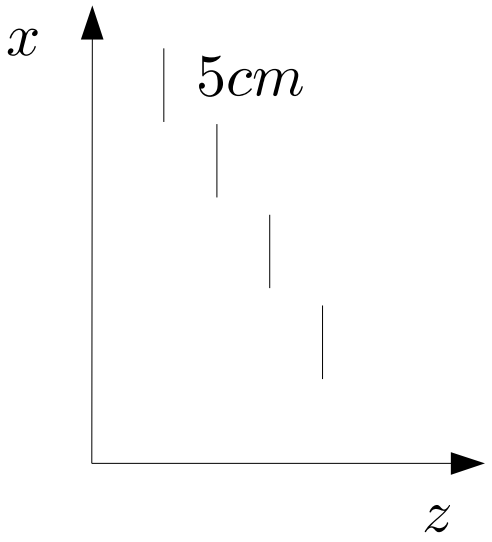
Photon-detector shape characterization



$$\mathbf{n} \cdot (\mathbf{x} - \mathbf{x_0}) = 0$$

$$\mathbf{x}' = \mathbf{l}t + \mathbf{x}'_\mathbf{0}$$

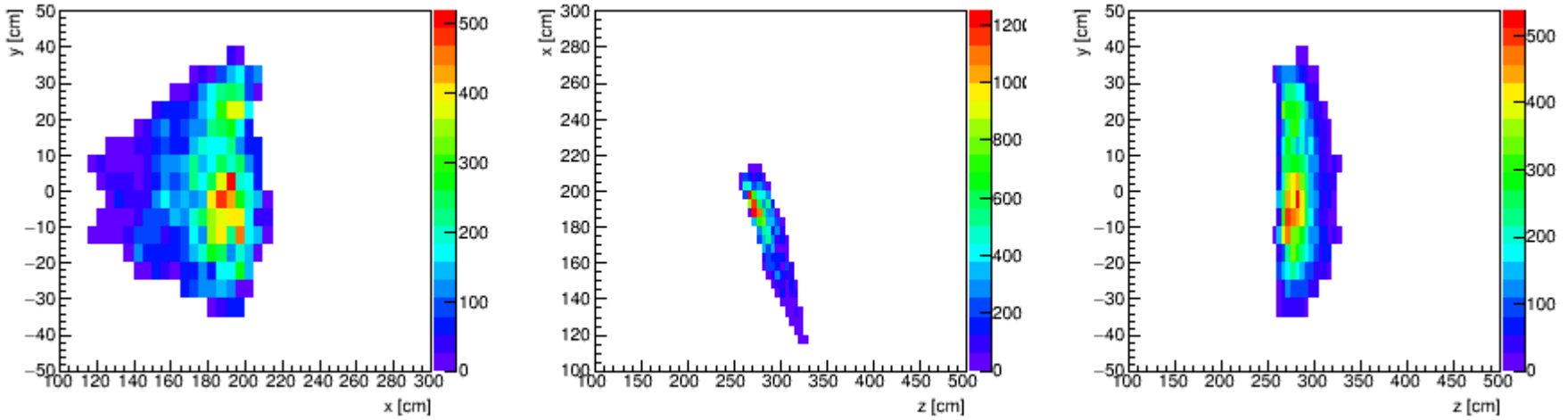
We can find the intersection between the photon and a given plane



Detector made by several sub-peace Ladder-like shape, let us assume for the moment slice in y and

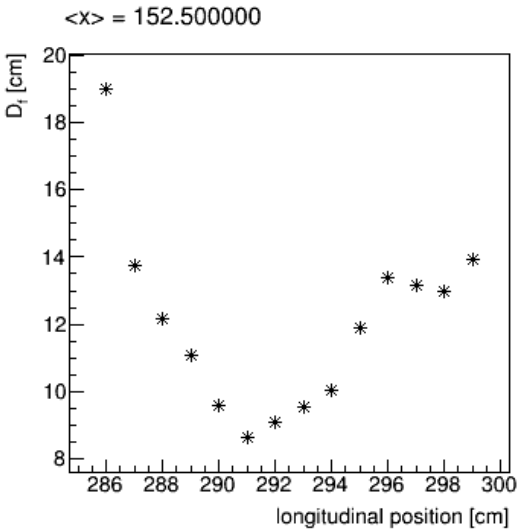
$$n = (0, 0, 1)$$

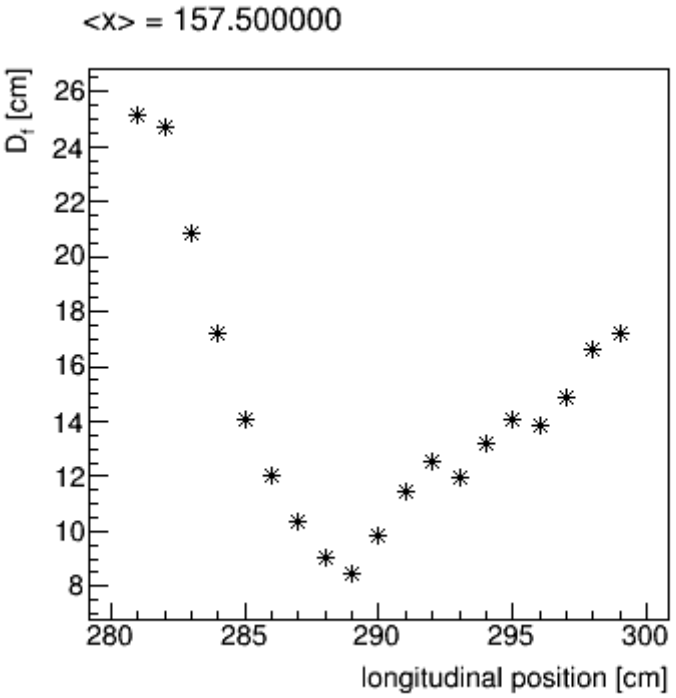
Focal surface distribution

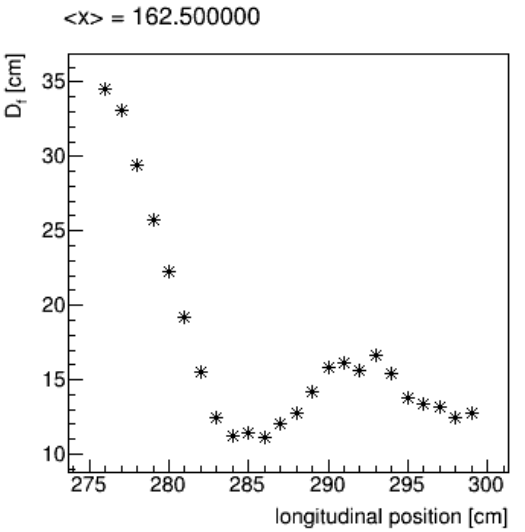


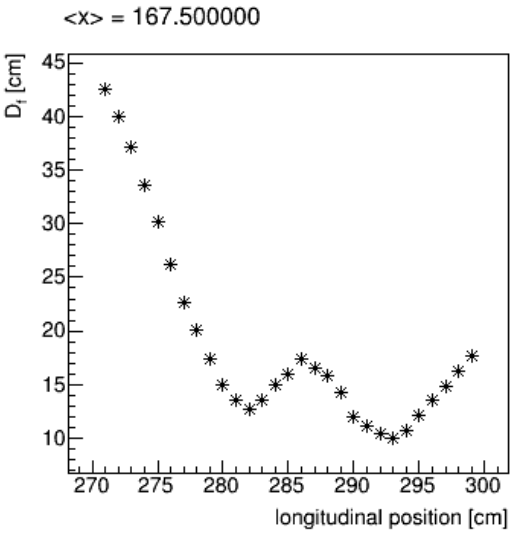
The goal is to run a MC minimizing the distance of the photons collected on detector's slice from the real focal

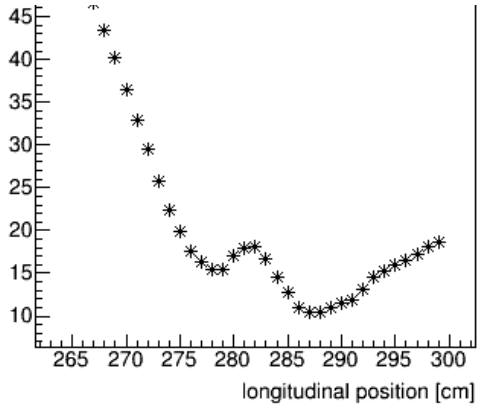
Preliminary test

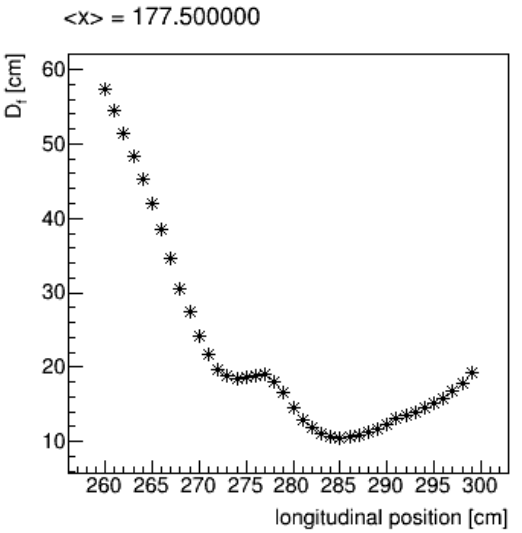












Comments

- Beyond this first result: check the result with GEMC;
- In principle we can have 5 free parameters: n and x-y shape/dim;
- The work with Alexander is going on.