Timing calibration
Light distribution simulation
Simulation infrastructure

- geometry build in ROOT
- tracking as a standalone C++ app

- plots so far intended as a software verification

- everything done in an extendable way, so it's easy to:
  - change/add geometry
  - use different light source

- ray is created and tracked and histograms once it transfers the PMT-wedge plane
Example

- point-like source
  - uniform over solid angle up to some max-angle
simple source – angle 1
simple source – angle 2
simple source – angle 3
simple source – angle 4
Next steps

- add extra geometry
  - prisms that will couple fiber to wedge

- define the properties of the light source:
  - fiber properties (light distribution)
  - laser properties (light distribution)
Questions?

- what is the target number of photons/PMT_channel during calibration?

- what kind of procedure will this be?
  - counting/analysing single photons
  - doing the statistical average

- what is the initial time spread & jitter of the expected light source?

- will it be done 1/8 fibers at a time or 8/8 simultaneously?