

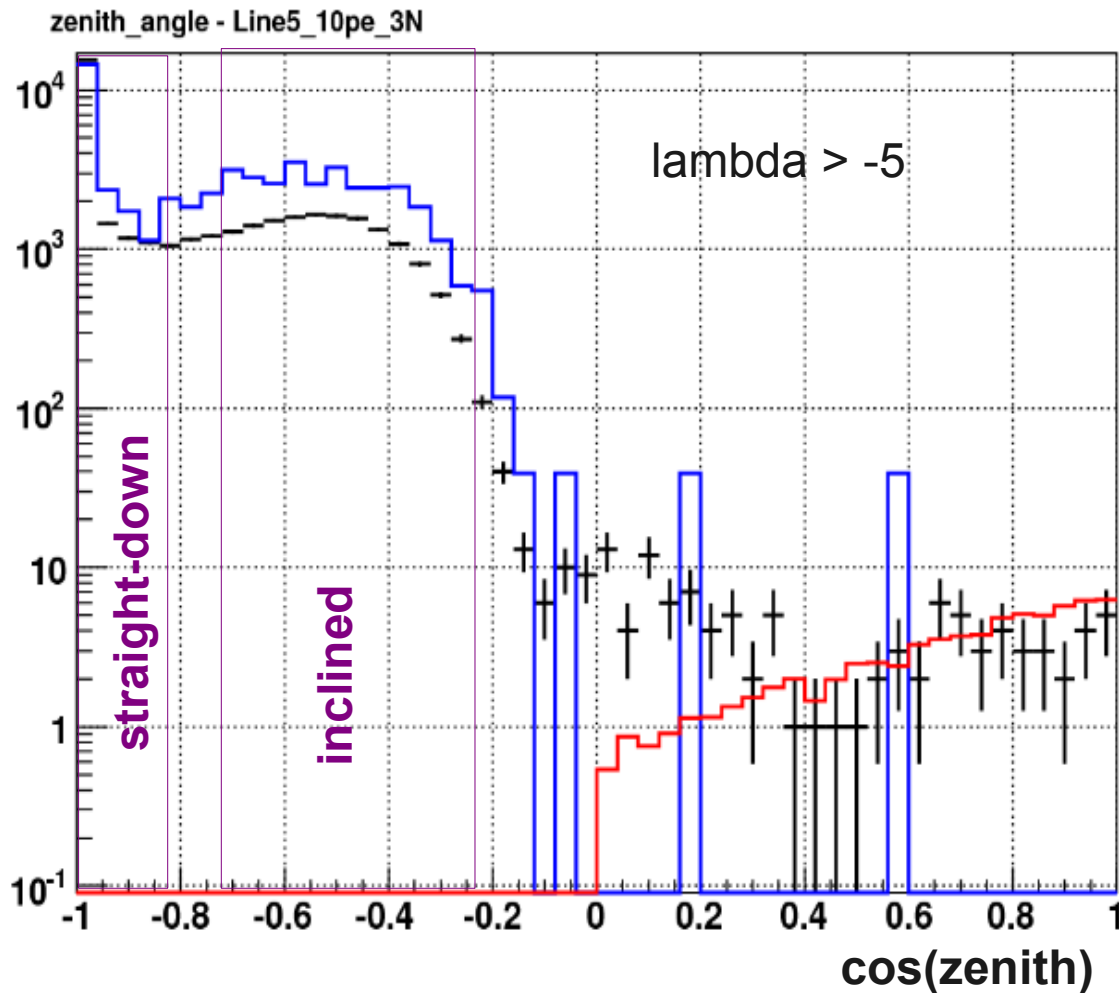
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# *Status of Point Source Search Analysis*

Aart Heijboer, Claudio Bogazzi  
Nikhef

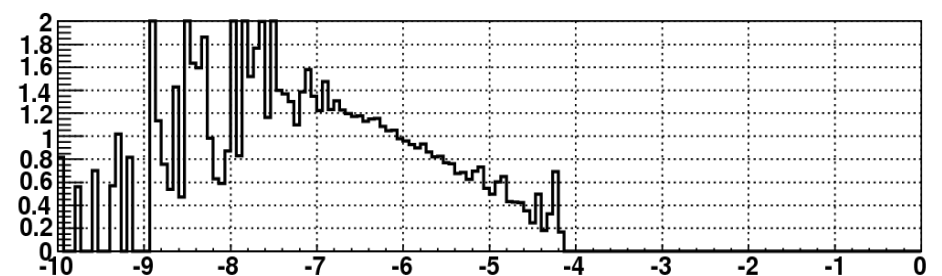
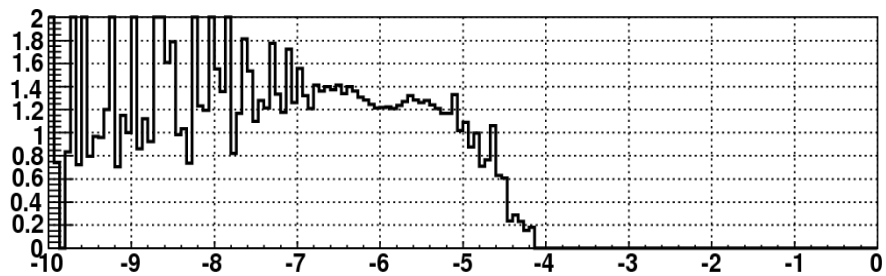
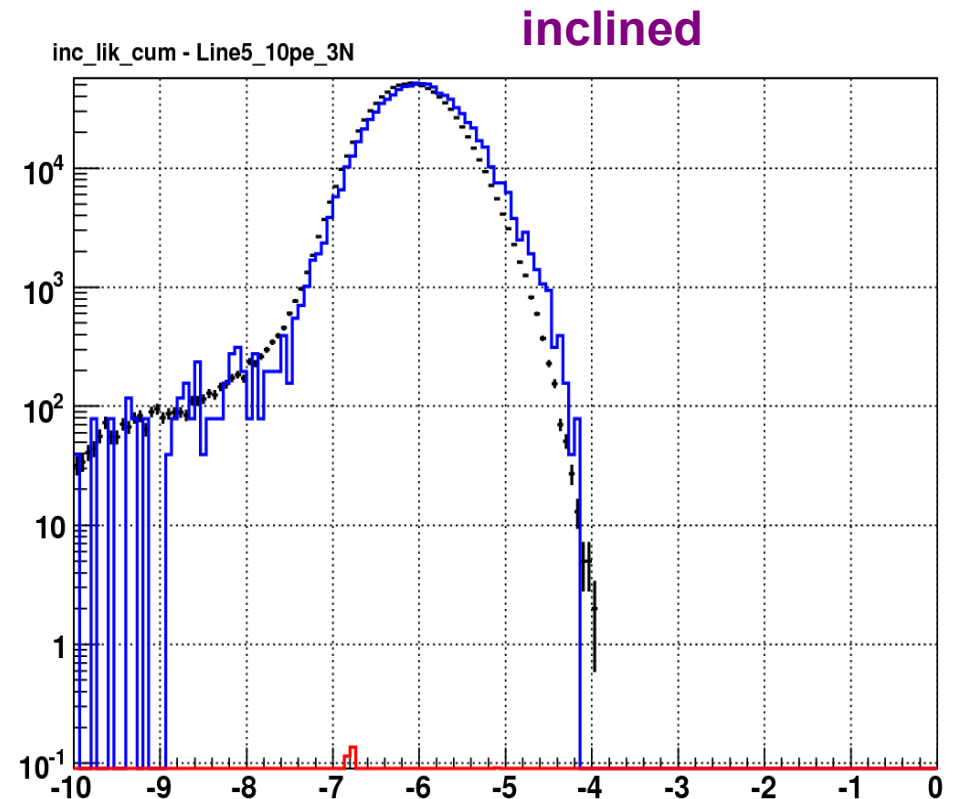
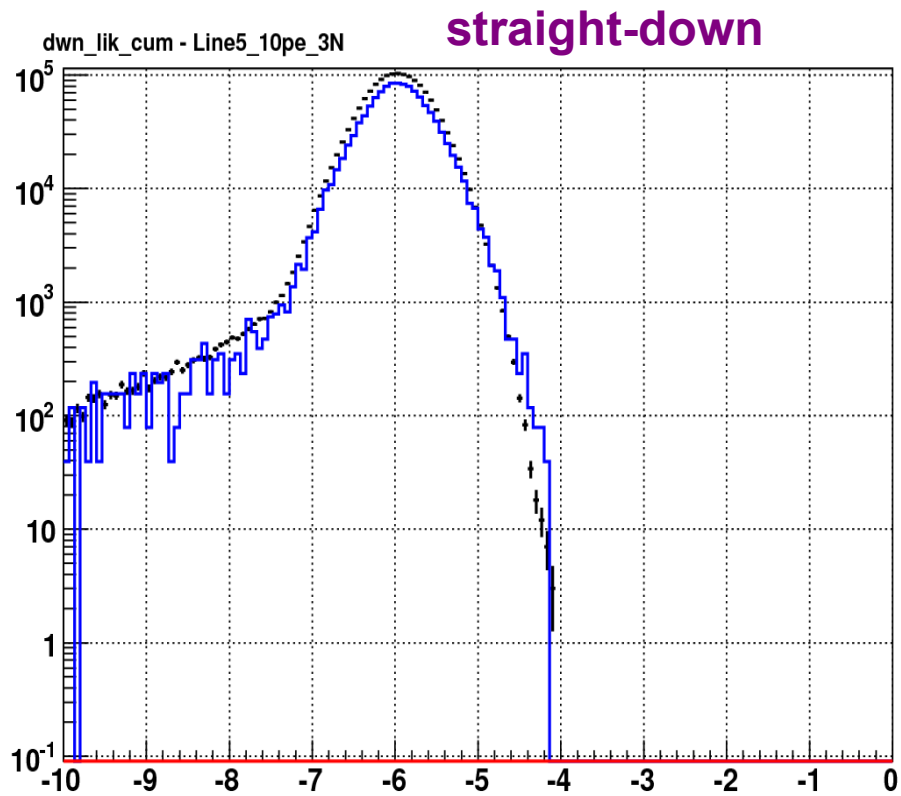
- Improving MC to match data : test new TriggerEfficiency
- Improving Reconstruction to deal with high amplitudes
- High level work: systematics studies

# Reminder



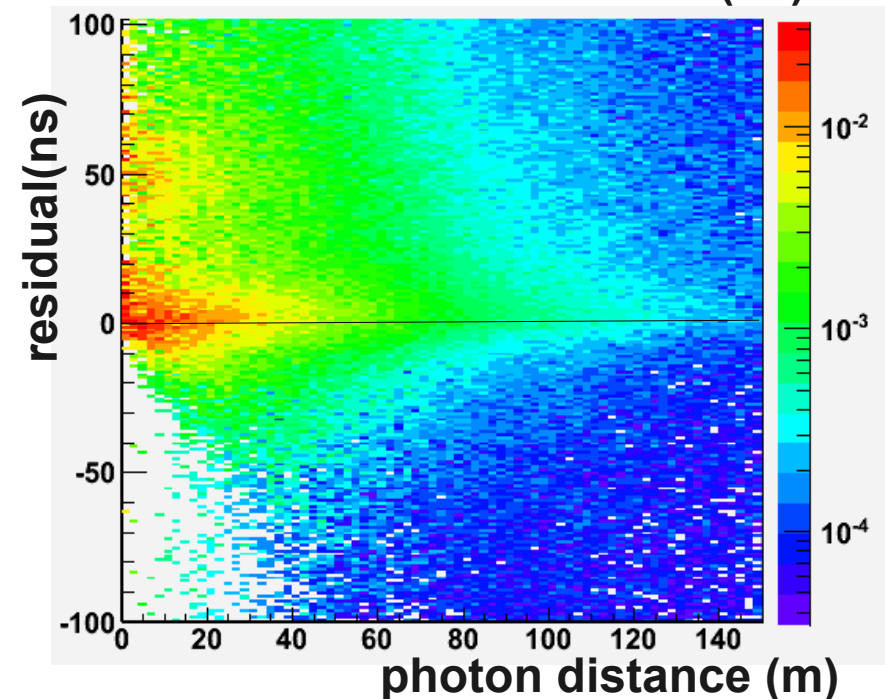
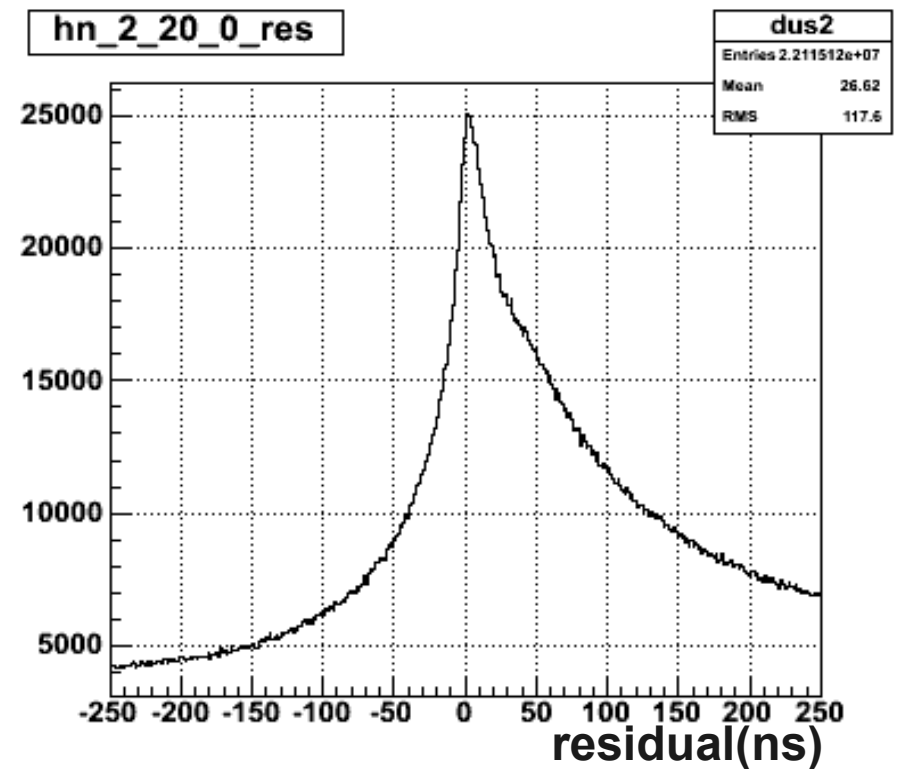
- many distributions look good (see previous/erc talk), but
- inclined, downgoing muons show bad likelihood.

# Reminder



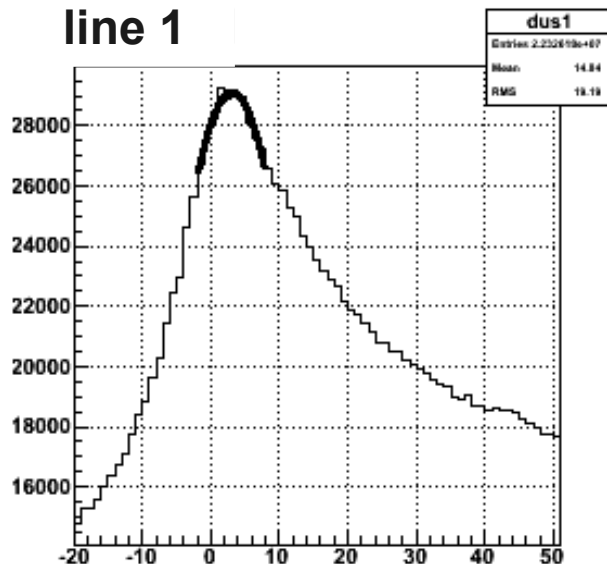
# Hitstudies

- remove 1 *probe*-string from hits
- reconstruct on other strings
- apply quality cut to select good muons
- use hits on probe string to study:
  - time-offsets <---
  - later maybe:
    - alignment
    - acceptance
    - absorption.
- partially motivated by result obtained by Mieke Bouwhuis:
  - using nominal detector in stead of aligned one, gives big difference in lambda
  - analysis elog #402
  - => try to check alignment & timing

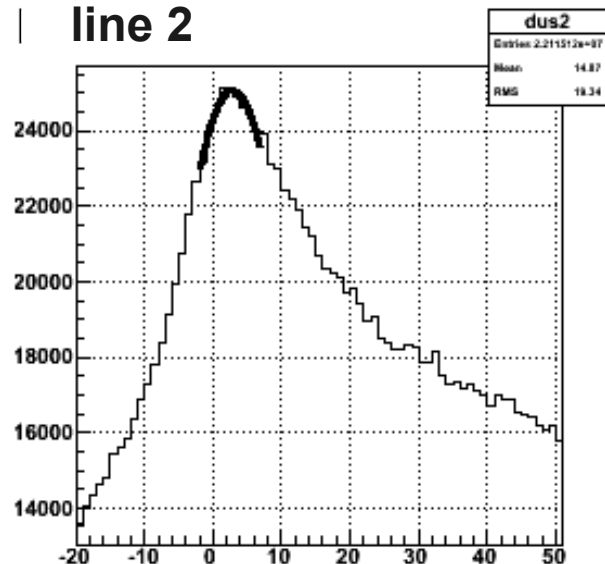


# Hitstudies : time residuals

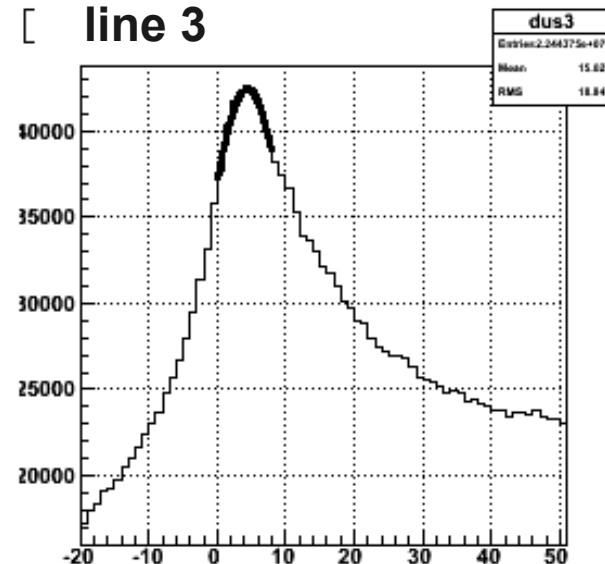
line 1



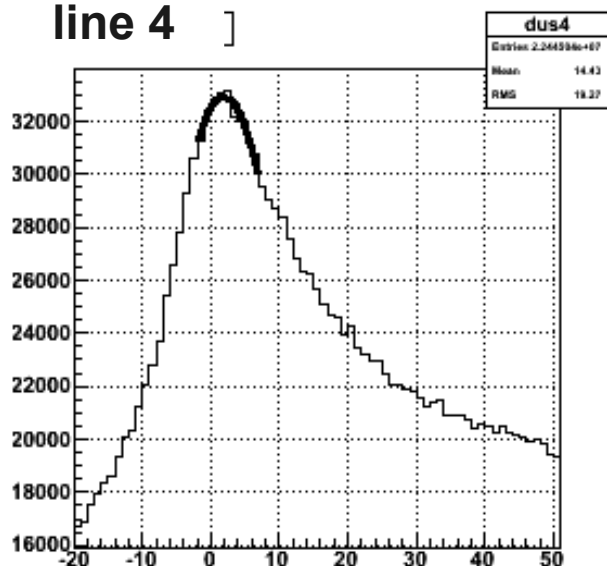
line 2



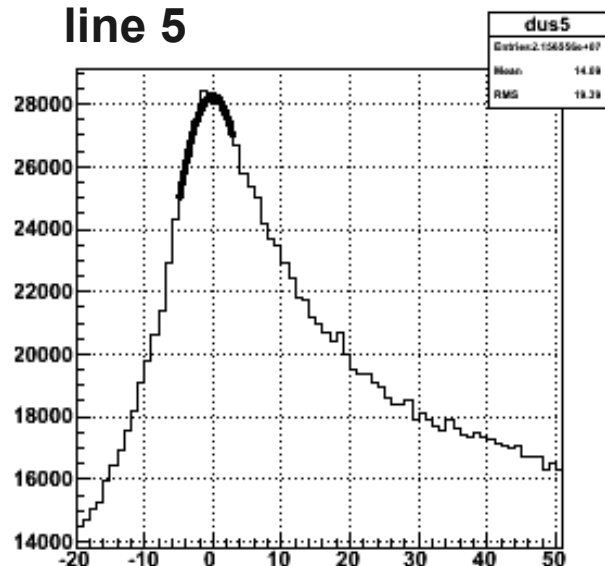
line 3



line 4



line 5



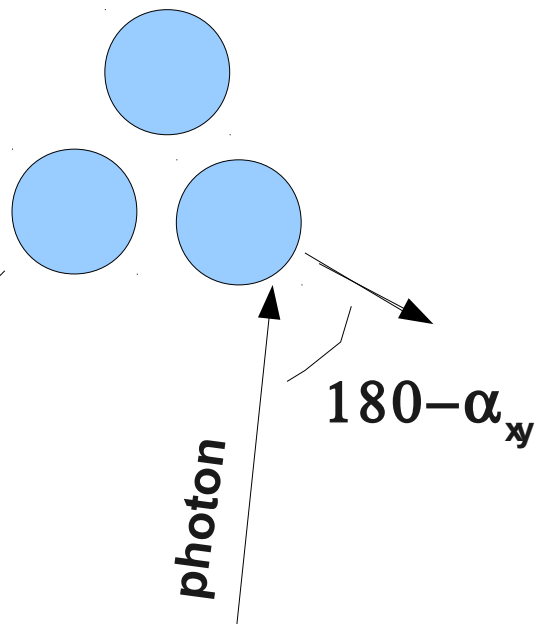
line	offset (ns)
1	3.0
2	2.8
3	4.4
4	1.9
5	-0.7

- different offsets:  
not seen in MC (mupage)
- consistent over time
- no obvious dependency on top/bottom

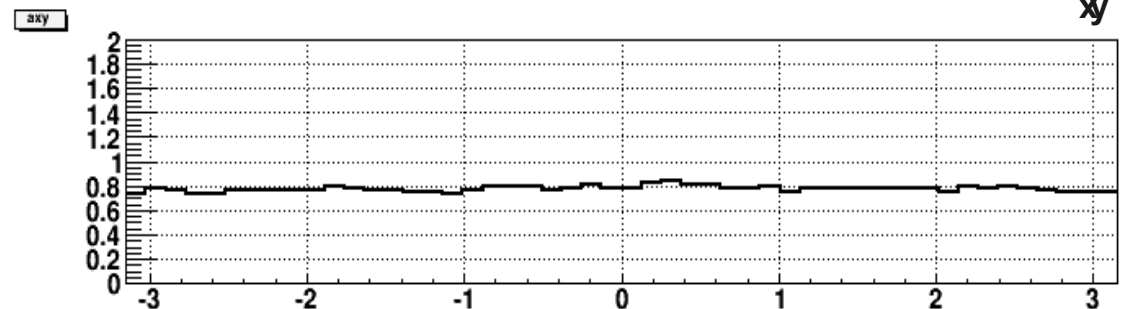
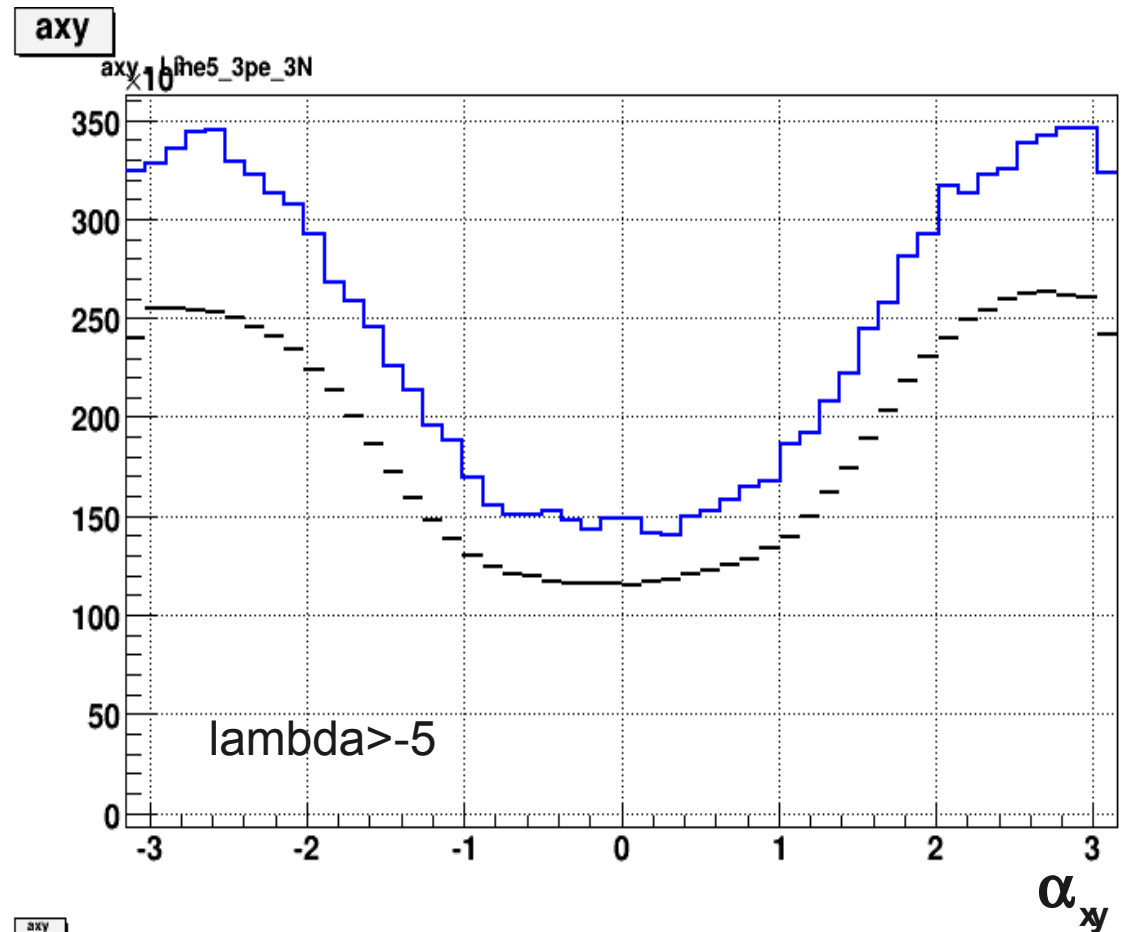
# Hitstudies : angle of photon impact

nb: biased hits: probe-hits =  
reco-hits in this plot.

$\alpha_{xy}$  = impact angle in  
the xy plane.



nicely modeled: no sign of wrong  
OM-orientations.



# Conclusions / plans

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hit-studies = work in progress since few days

in next few days:

- add offsets observed in data to the mc -> see if it matters..
- compare with optical beacon results (?)
- look at corsika vs mupage

at same time:

- checking coordinate transformations (Claudio – so far so good)
- starting to re-spin full analysis
- started writing note