



# News on minimum bias selection

Fabio Ambrosino, Camilla Di Donato  
& Matthew Moulson

# Minimum Bias Selection Criteria

We use NRLOOSE filter [Kn178 S.G. & S.M.] with minimal modifications:

- At least 3 prompt neutral clusters, with time window  $\min(5\sigma_{T_{clu}}, 5\text{ns})$
- only cluster over  $18^\circ$
- $\sum E_{clu} > 500 \text{ MeV}$  (all clusters)

# 2001-2002

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- We produced a downscaled sample from RAW data, without both FILFO and EVCL
- The size is  $\sim 3.1 \text{ GB/pb}^{-1}$
- 1/10 of the 2001-2002 data has been reconstructed and yb files in dst format are available on AFS area.  $40\text{pb}^{-1}$ ,  $\rightarrow$  about 124 GB

More details in a kloe memo in preparation

# 2001-2002

- 2002 data on /afs/kloe/group/phidec3/rad/yb/dst/
  - 23557-23896  $L=3 \text{ pb}^{-1}$
- 2002 data on /afs/kloe/group/phidec/rad/yb/dst/
  - 23914-24531  $L= 4.8 \text{ pb}^{-1}$
  - 24612-24978  $L= 2.6 \text{ pb}^{-1}$
  - 24988-25463  $L= 4.0 \text{ pb}^{-1}$
  - 25473-25967  $L= 4.1 \text{ pb}^{-1}$
- 2001 data on /afs/kloe/group/phidec2/rad/yb/dst/
  - 17868-19804  $L= 3.2 \text{ pb}^{-1}$  (v13)
- 2001 data
  - 19813-23010  $L= 8.0 \text{ pb}^{-1}$  (v13)
  - 18345-23129  $L= 7.7 \text{ pb}^{-1}$  (v14)

$L = 21.7 \text{ pb}^{-1}$

In production

# 2001-2002

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- Minimum Bias dst will stay on AFS area for a limited time (1 month ?), due to their large disk space occupation.
- Please remember the policy which we have decided for the group: ntuples of individual analyses **\*MUST\*** be removed from AFS areas asap after production in order to leave space free for jobs to complete. (Even laptops now have 80 GB Disk space, while our AFS area is vital).

# 2004: Minimum Bias in EVCL

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- ECL\_RADMBTAG inside eclmod.kloe to add events in the RAD stream
- We prescale the events. Prescale factor and total energy cut can be set by via talk\_to

## Changes in ECLword

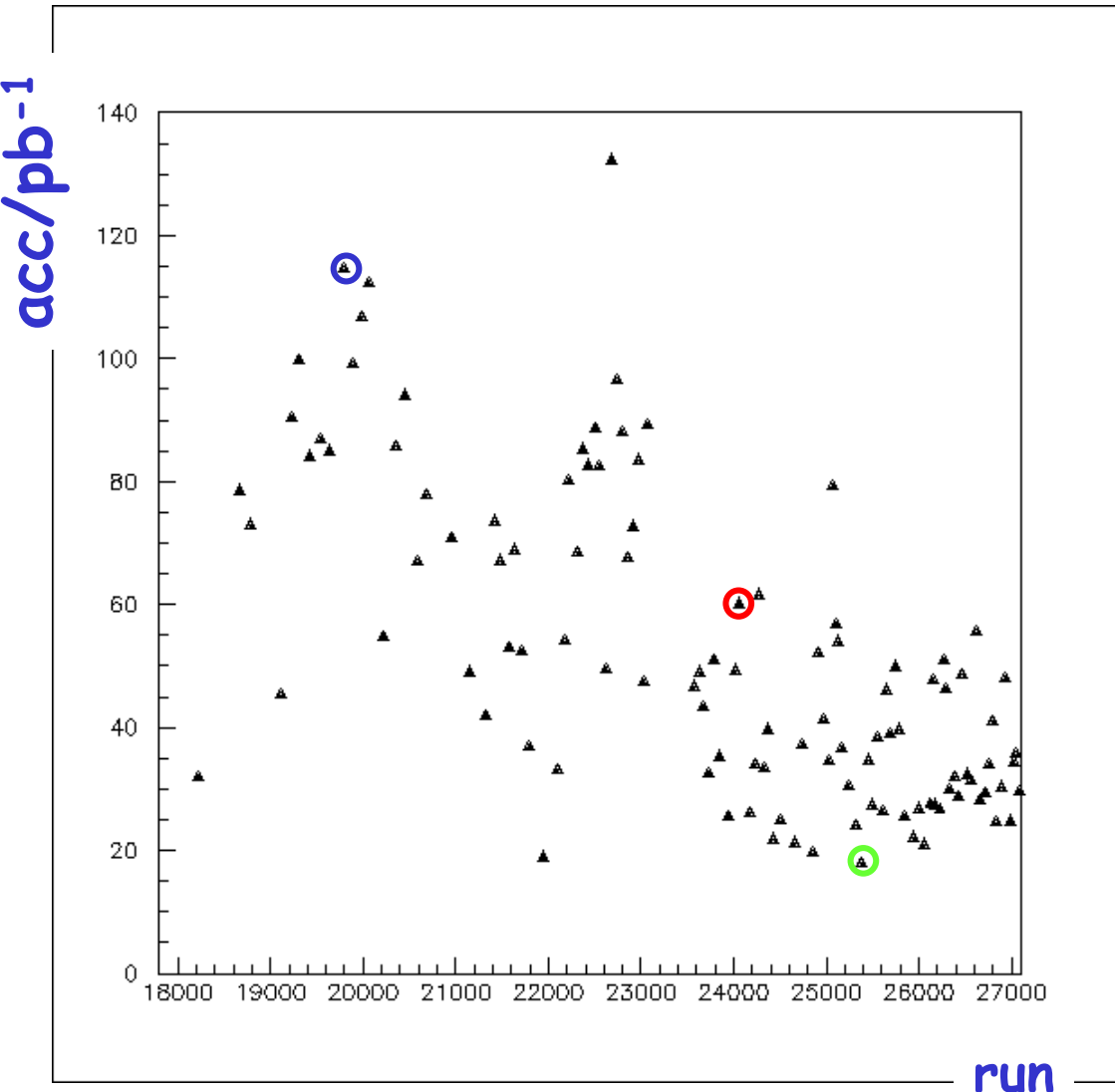
- Bit 7: radmbtag event and prescaled
- Bit 18: radmbtag event
- Bit 19: radmbtag event “charged” and prescaled

# 2004: M.B in drc and drn

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- RAD MB TAG decision does not use tracks. Together with Matt we decided to add half of them in drc and half of them in drn streams.
- If one needs more MB events he/she can look at events into the other stream. “Pure” M. B should look like this as regards ECL word:
  - Bits 4,5,6 = off
  - Bit 7 = on

# Minimum Bias vs run condition



- 19747
- 24046
- 25356



# M.B.s. in EVCL old-filfo

- Run 19747; Events in rad-stream 39245  
PreScale factor = 10

EneMin	Rad Events + M.B. Scaled	M.B. Scaled	M.B. as % of Rad Events
500 MeV	47245	8000	20%
400 MeV	48409	9164	23%
350 MeV	49503	10258	26%
300 MeV	50993	11748	30%

rad-stream ⇒ bit 4 on .OR. bit 5 on .OR. bit 6 on

rad-stream + m.b. scaled ⇒ bit 4 on .OR. bit 5 on .OR. bit 6 on .OR. bit 7

# M.B.s. in EVCL old-filfo

- Run 24046; Events in rad-stream 98748  
PreScale factor = 10

EneMin	Rad Events + M.B. Scaled	M.B. Scaled	M.B. as % of Rad Events
500 MeV	113396	14648	15%
400 MeV	114056	15308	15.5%
350 MeV	114505	15757	16%
300 MeV	115137	16386	16.6%

# M.B.s. in EVCL old-filfo

- Run 25356; Events in rad-stream 88301  
PreScale factor = 10

EneMin	Rad Events + M.B. Scaled	M.B. Scaled	M.B. as % of Rad Events
500 MeV	101502	13201	15%
400 MeV	101954	13653	15%
350 MeV	102268	13967	16%
300 MeV	102642	14341	16%

# M.B.s. in EVCL new-filfo

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- The same study is on-going with the new-filfo condition (dbv-19) where BHABAREJ is off
- We'd like to choose a larger cut on EneMin, using a greater prescale factor; we have in mind Enemin around 350 MeV and PreScale = 20 .....we are waiting for jobs in queues to come out...

# Conclusions & Outlook

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- Downscaled rad-sample on disk: until....?
- New tag for rad stream in eclmod
- Dbv-19: RADMBENEMIN=500 MeV and RADMBSCALE=10 but we are testing a different choice
- A Kloe memo with full documentation is in preparation