SCT service work:
Muons in the SCT ntuple

Ingo Bloch
Laura Rehnisch
Steve McMahon

PHYSICS
AT THE

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SCALE

Helmholtz Alliance

DESY
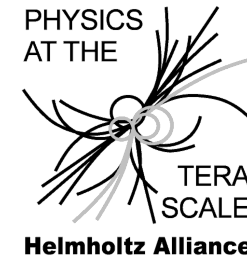
- SCT ntuple – some background

- Muons in the SCT ntuple – the plan
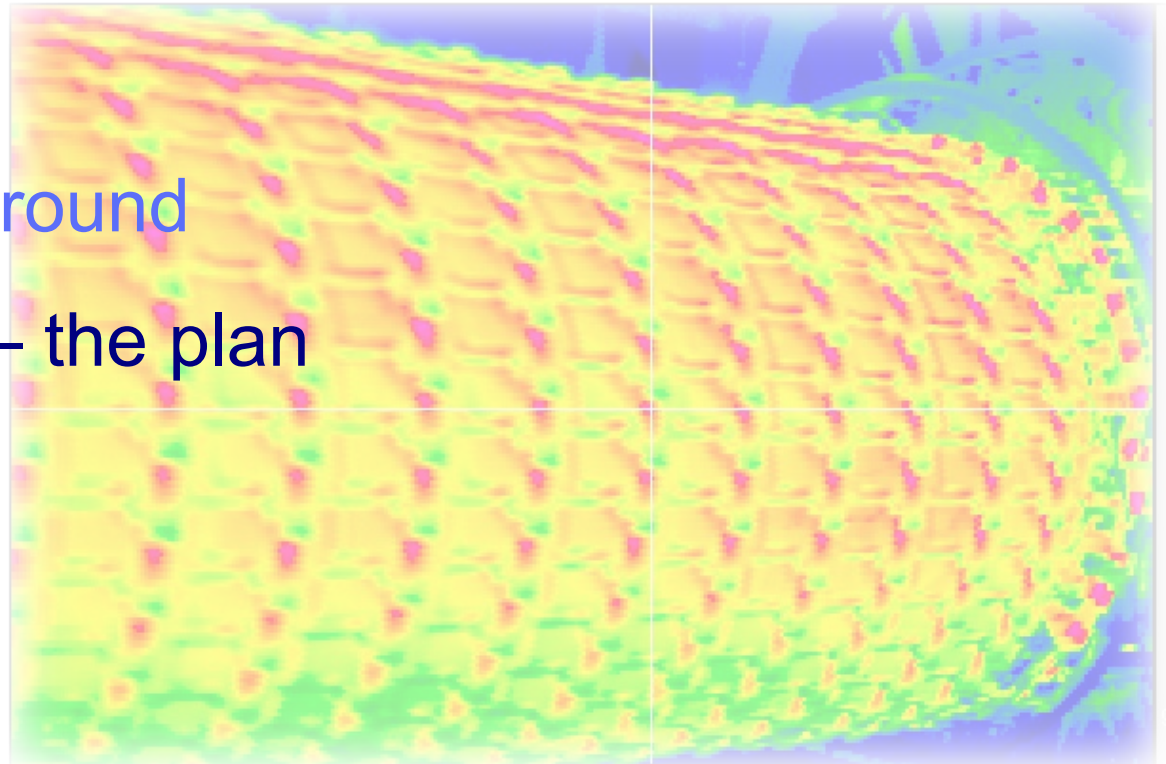
SCT Service work - Laura

Quote from Laura's email:

"Ich habe mich mit Ingo Bloch und Steve McMahon auf folgende Aufgabe im SCT geeinigt:

Inclusion of muon-related information into the SCT ntuple, study of momentum dependence and radiation effects in MIP signals."

SCT Service work – Some Details

Some background info:

SCT ntuple is produced at T0 right after data taking.
Only express stream usable as in all other streams the
relevant RAW data is dropped.

Elias Coniavitis is main SCT ntuple guru. Had fun chatting
with him about background and details of procedures,
technicalities and people involved.

SCT ntuple is produced inside track D3PD maker. Met Remi
who is taking care of this main routine. He is willing to help
with any issue that might arise.

Laura's code will be tested in some detail before we release
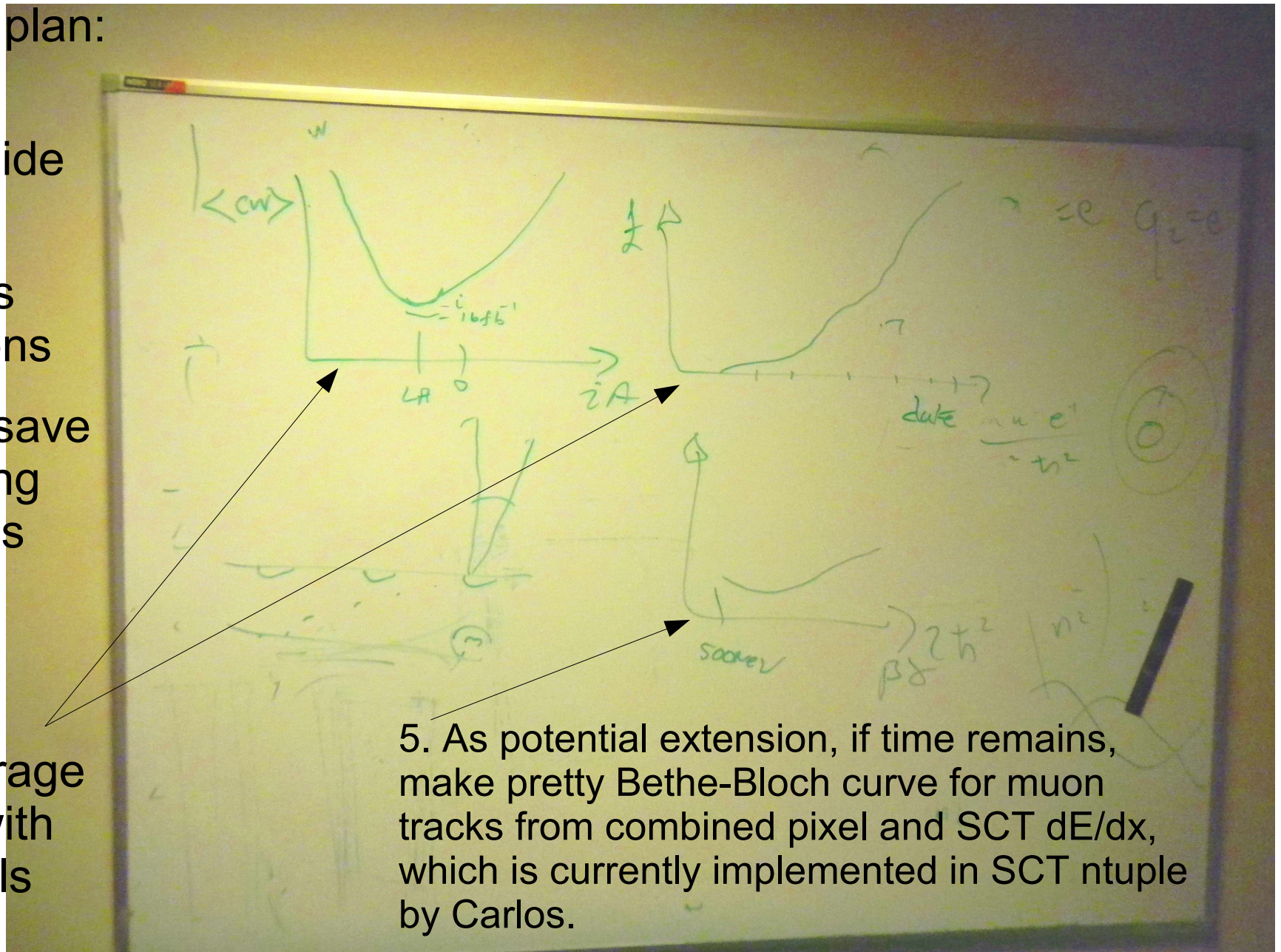it with the help of Elias to run at the T0.

And this is the plan:

1. Read muon information inside SCT job.

2. Match tracks with good muons

3. Initially just save a flag classifying a given track as a good muon

4. Use muon tracks to study change of average cluster width with increased levels of irradiation.

5. As potential extension, if time remains, make pretty Bethe-Bloch curve for muon tracks from combined pixel and SCT dE/dx, which is currently implemented in SCT ntuple by Carlos.

BACKUP SLIDES

naaaaaaaa