

Beam Test Data Analysis

Review of the Bari TKRDigi

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The TKRDigi algorithm Bari version

INPUT:

- Input and exit point
- Energy loss

PARAMETRIZATION:

- Clusters generation

CLUSTER PROPAGATION:

- e-h motion
- Induced current signal

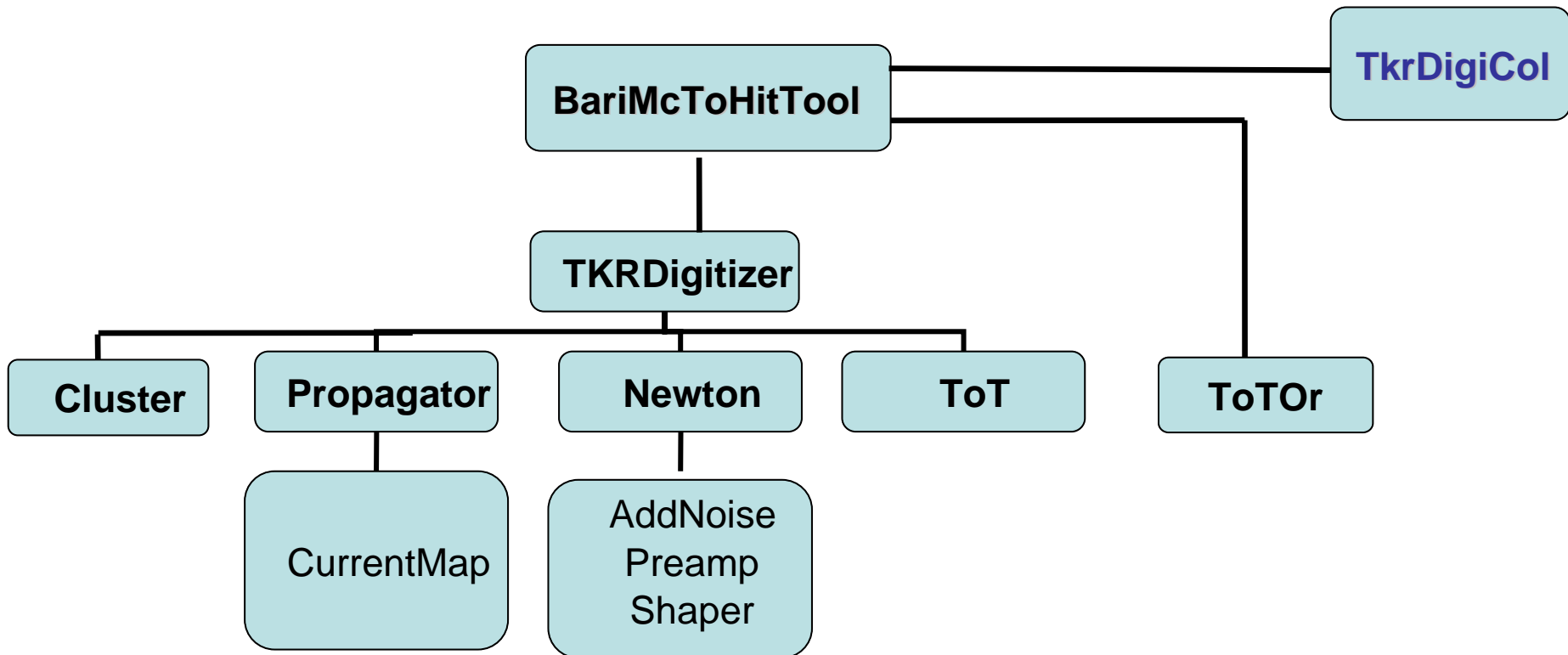
ELECTRONICS (Newton):

- NOISE
- Voltage signal evaluation

OUTPUT:

- Fired strips list, per layer
- TOT per layer

The TKRDigi: the package



Review approach

We are starting to look for a simplified version of TKRBariDigiAlg (not excluding the “Full simulation” version. Only a flag to switch)

- **Level 0:** no SSDs detailed simulation (i.e. No e-h propagation, no current signal induced on the strips and no electronic simulation). This is our proposal discussed last week.
- **Level 1:** re-introduce only the cluster propagation (in order to simulate the sharing effect alone)
- **Level 2:** re-introduce the signal simulation (current Bari Digi algorithm version)

MC re-production strategy

- Starting from a mc.root file already available from the MC massive simulation, we would like to re-process some runs to compare the results by using the full TKR Bari Digit simulation