Estimate of the Maximal Current in HEC LAr Gaps

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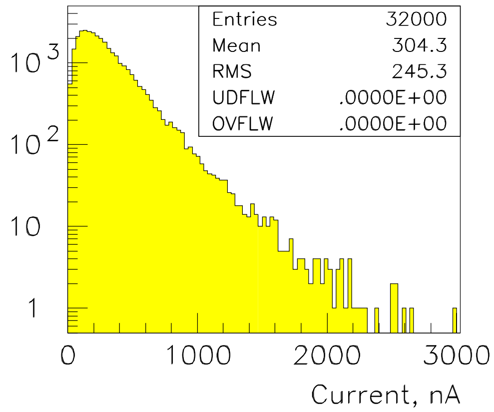
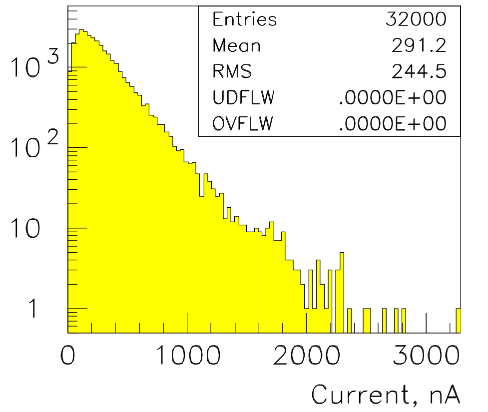
- **Simulated minimum bias events (~3000)**
- **Pile-up of 23 in average (Poisson distributed) minimum bias events per bunch crossing — high luminosity**
- **Energy deposition in LAr gaps of one HEC azimuthal segment**
- **Analysis of 1998 test beam data:**
  - **visible energy $\rightarrow$ beam energy — 23.3**
  - **current $\rightarrow$ beam energy — 0.00321 GeV/nA**
- **Visible energy $\Rightarrow$ Current — ~7260 nA/GeV(visible)**

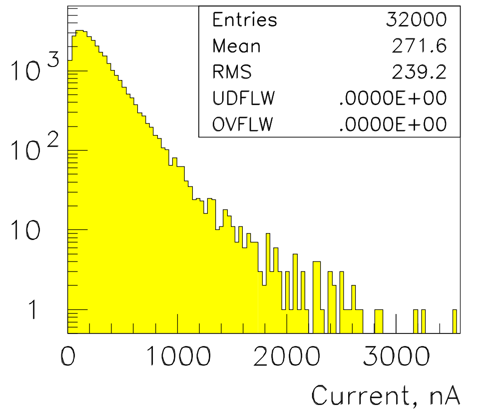
Current in Gaps of HEC Modules after Pileup of 23 MB Events



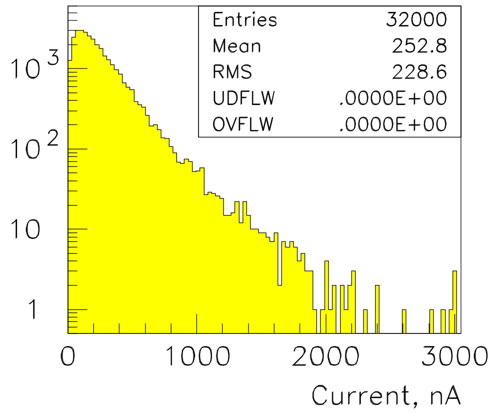
Gap 1



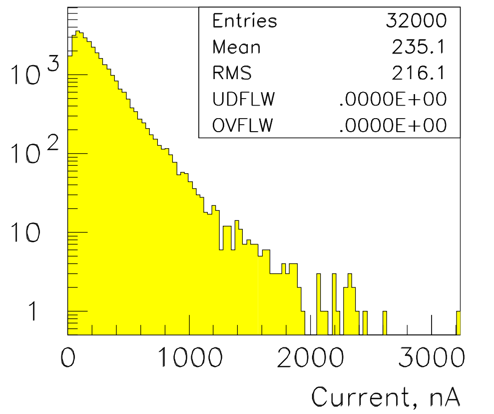
Gap 2



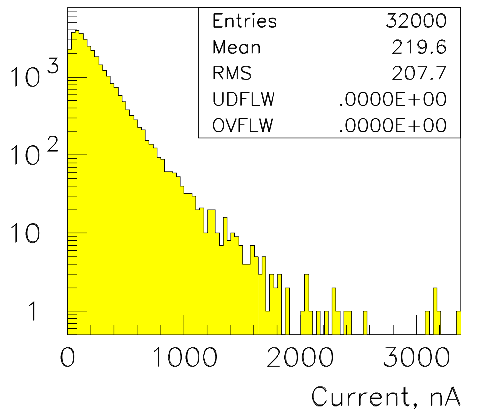
Gap 3



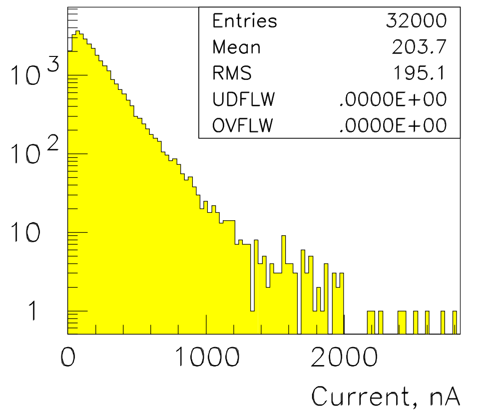
Gap 4



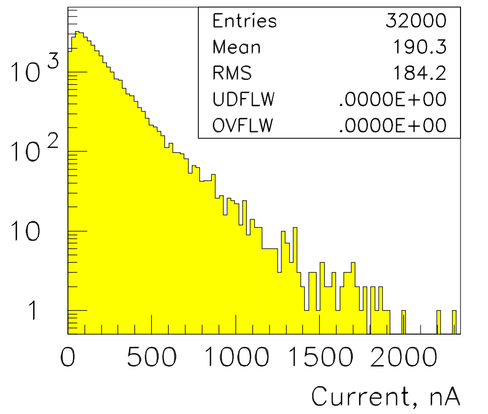
Gap 5



Gap 6

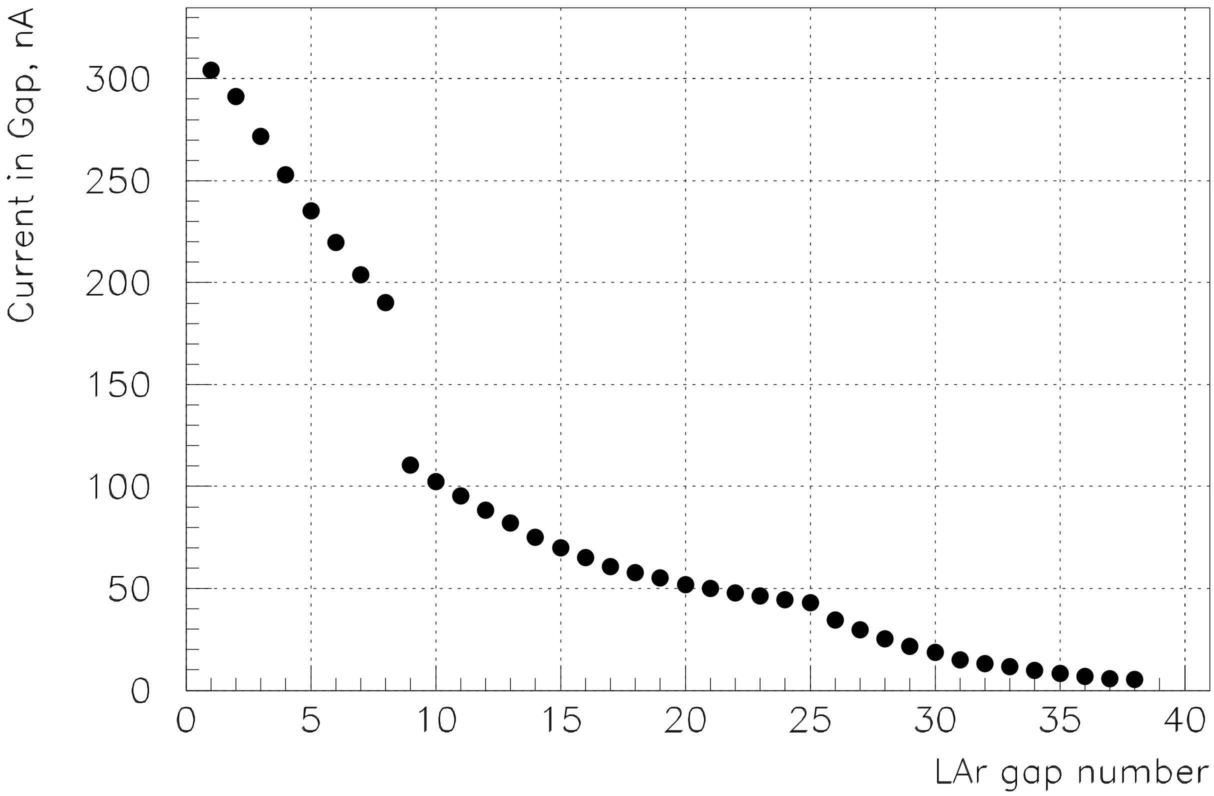


Gap 7

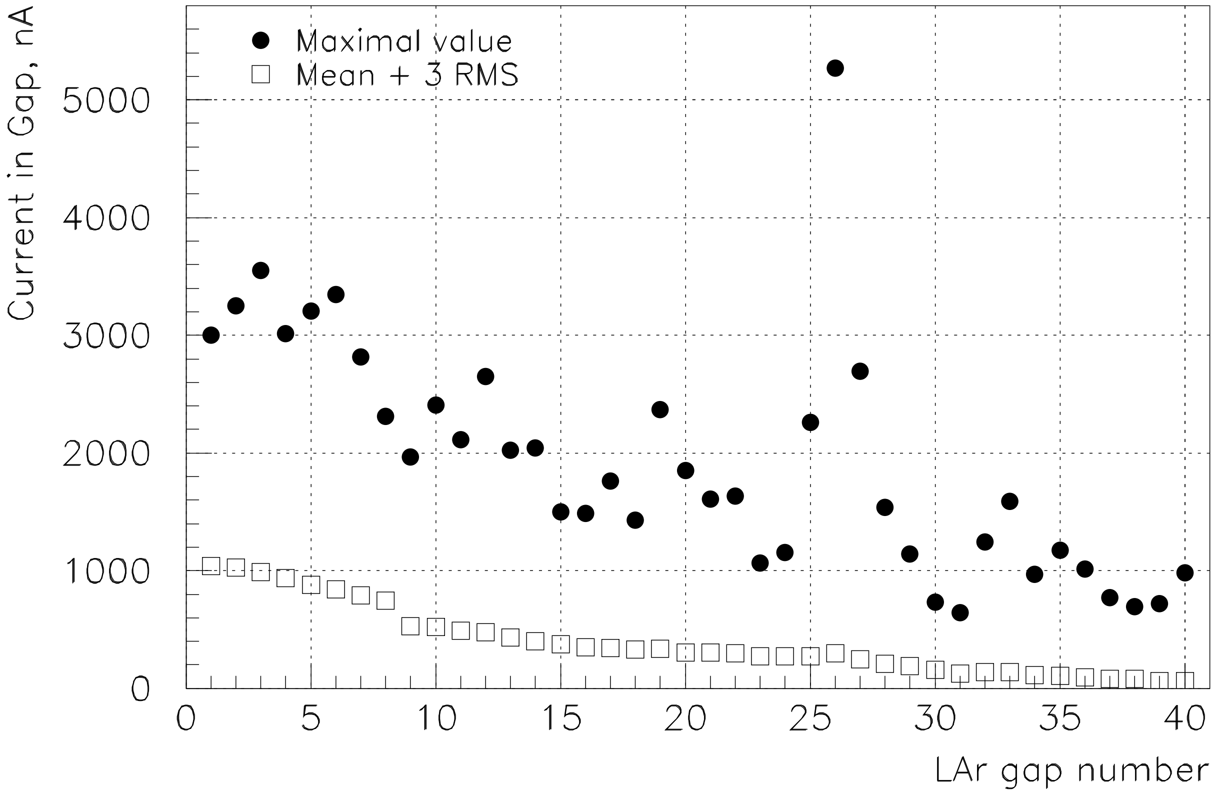


Gap 8

Current in Gaps of HEC Modules after Pileup of 23 MB Events



Mean energy



Maximal energy