Simulations: Status of Work

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- Development and tests of the new HEC geometry

  – Package LArG4TBHEC with different HEC geometries

  – HEC stand-alone testbeam

- Geant4 physics validation with HEC testbeam data

  – HEC stand-alone testbeam $\rightarrow$ first draft of the article

  – Combined testbeam of EMEC/HEC (2002)

Geant4 physics validation with combined testbeam

- Impact point J and 8 neighbours (± 5 mm in X/Y)

- Geant4
  - version 6.2p02, 700 μm range cut
  - samples with calibration hits
  - pion energy scans (LHEP and QGSP)
  - 60 GeV electrons

- Geant3
  - two sets of cuts
  - pion energy scans
  - electron energy scans

- Next steps
  - still missing energies/points (condor problems)
  - analysis (energy in EMEC/HEC layers, resolution, leakage, etc.)
  - study dependences on the range cut