Workflow for KASCADE Measurement and Simulation Data

Measurements

Simulations

primary particle →

shower axis

zenith angle →

KASCADE detectors

shower disc (~1m)

air shower simulation CORSIKA

Input
  primary energy   E
  particle ID   A
  shower direction Θ , Φ ...

high energy models
  QGSjet
  EPOS
  Sibyll

low energy model
  FLUKA

- data acquisition
- event building
- event storage

detector simulation CRES
based on GEANT 3

data reconstruction using KRETA
- data calibration and data correction
- reconstruction of EAS variables like N_e, N_μ, shower direction, core
  postion, densities ..
- data storage in root files

Data Analysis
compare measurements with distributions achieved from extensive air shower simulations