Plan of BFEM Simulator Poster

Tsunefumi Mizuno
October 25, 2001 Balloon Analysis VRVS meeting
Title: “Geant4 Based Cosmic Ray Background Simulator for Balloon Experiment”

I plan to divide poster into 4 parts.
- Contents of each parts are show in page 2-4
a) Instruments part

I plan to put a few pictures to show geometry
b) CR model part

- **Solar modulation (phi~540MV)**
- **Solar modulation (phi~1100MV)**
- **With magnetic cutoff (@Palestine)**
- **Secondary (@Palestine)**

**Spectrum outside solar system**

- Show proton spectrum to explain solar modulation and geomagnetic cutoff
- Show spectra of other particles (e-, e+, gamma, mu-, mu+)
c) BFEM Operation part

Three figures, to show that we are mainly analyzing level flight data

- **Time VS GPS altitude**
  - This plot is derived from 1579 flight.rpt

- **Atmospheric depth VS. L1T Rate of Run54**
  - Atmospheric depth (g/cm²) is calculated as 1.02 * pressure (in mbar)

- **Fraction of Neutral counts**
  - Depth (g/cm²)
d) Simulation results part

• plots that show **comparison** between Data/simulation
• plots that show **contribution** of each particle

• There exists small difference between Data and simulation. If updating geometry reduces the difference, we will modify figures.