

# Software Development & MC Production

**V. Choutko**

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- **TOF (by E. Choumilov)**

- Readout features: 1-scale readout for anodes and 2-scales readout for dynodes. Dynodes readout still use combined signal of 2(3) PMTs coupled to one side of the counter. Separate PMT-dynodes readout is not implemented.

- **ANTI (by E. Choumilov)**

- Readout: 16 sectors are read out as 8 logical by coupling signals of 2 adjacent sectors on each side.
- New "mixed" scheme ( adjacent sectors coupling on one side and next to adjacent sectors coupling on another side) is not implemented.
- Calibration program is developed but not included in the current version.

- **ECAL (by E. Choumilov)**

- Still use geometry with identical 9 superlayers; radiator transversal size slightly exceeds the area viewed by PMTs. Weight saving "cut outs" are not implemented yet.

- **Tracker (by V. Choutko)**

- Track finding without magnetic field introduced;

- **Trigger (by E. Choumilov)**

- By default level-1 trigger logic is set to the "unbiased" mode: "TOF3of4-coincidence **OR**  $ECE_{tot} \geq MIP_{signal}$ ". EC trigger "hit counting" algorithm is implemented, but not activated.
- Default trigger mode can be changed through TGL1 data-card.

- **RICH (by C. Delgado)**
  - Aerogel Refraction Index of 1.03 had been chosen;
  - New reconstruction software developed by LIP included into the official code, but not switched on by default.
- **AxAMS by J. Alcaraz**
  - 3-prong Vertexes implemented.

**Goal:**

Complete AMS02 Physics Performance Evaluation, including  $p$ ,  $\bar{p}$ ,  $e^\pm$ ,  $\gamma$ , He,  $\bar{\text{He}}$ , Li, Be, C, d,  $\bar{d}$  cosmic ray sources.

Started: January 15, 2004.

Expected Duration: 3++ Months.

Estimated Disk(Tape) Space and CPU Time Needed:

- Disk Space: 6 TBytes;
- CPU: 10000 PIII-1000 CPU days;

