# SBS Coordinate Detector Organization

This unofficial document is intended to outline how the subgroup of SBS, whose objective is the design, development, and construction of the "Coordinate Detector", will be organized. Additions, modifications, deletions, etc. are always welcome (Let's put some meat on these bones!).

### **Principal Players:**

Mahbub Khandaker (Idaho State University) is the person ultimately responsible for delivering the detector.

Adam Sarty (St. Mary's University) is Mahbub's main ally

Others include: Lubomir Pentchev, Mark Jones, Bogdan Wojtsekhowski

## **Responsibilities:**

Mahbub is the overall coordinator. This in no way implies that Mahbud is Adam's superior. It just delineates the responsibilities as seen from the outside. Mahbub and Adam should work closely together for the common good. Formally, the detector construction will occur at Idaho State. Mahbub will provide a detailed budget which can be inserted into the SBS PMP in place of the GEM based coordinate detector. Various aspects of the development, construction, and testing will be subcontracted to Adam. Adam may/will also petition the Canadian government for extra funding in order to build a 3<sup>rd</sup> plane, which would enhance the performance of the coordinate detector.

#### **Deliverables:**

The main device is a 2(3)-plane scintillator bar based coordinate detector that meets the experimental needs as outlined elsewhere (for now). The project includes:

- R&D
  - Prototyping
  - o PMT evaluation
- Design
- Actual physical construction
- Testing
- Front end electronics
  - o NINO
  - Level translators
  - o 1877S TDC's
- DAQ electronics
  - o 3500(5000) channels

- o 6(8) fastbus crates (We already have)
- o Power supplies, SFI's, and CPU's for the fastbus crates

#### • Software

- o DAQ
- o Online analysis
- o Calibration
- o Controls