Jyvaskyla University, Finland, EUROPE

Expression of interest to join the PHENIX collaboration.

Jyvaskyla HI group:

- Jan Rak
- DongJo Kim *postodoc*
- Mariana Bondila *postodoc*
- Timo Alho *PhD student*
- *New students are expected in fall 06*

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Jyvaskyla University

- Jyvaskyla University is located 3h by train north from Helsinki
- 15000 students
- Strong Physics Department: Vesa Ruuskanen, Kari Eskola, Thorsten Renk, members of ALICE since 98

Motivation

The main goal of JYFL HI group is to participate in the LHC/ALICE experiment. However, it seems obvious that RHIC/PHENIX experiment provides a strong complementary program and thus we believe, it is important to participate in both.

Our experimental group operates under a “Center of Excellence” founding of Finish Academy of science. It corresponds to about 500 kEUR/year.

Scientific interests

- We would like to follow an experience of Jan and DongJo in the analysis of PHENIX data focus on high-pT correlations and charm physics. An intermediate goal is to develop an analysis similar to what has been presented in ppg029 paper. Furthermore, we would like to explore an analysis of direct photon associated distributions (this is currently under way).

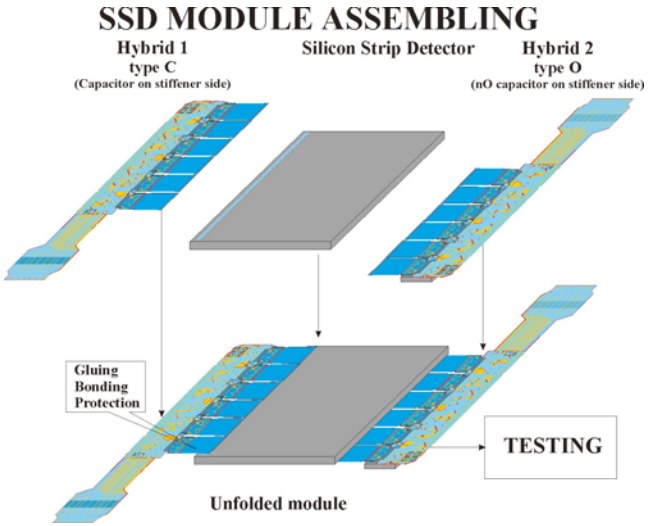
- Our group participates in the ALICE data analysis preparation and in the T0 (vertex detector) construction. The time sharing between ALICE and PHENIX activities is not quit predictible, depends on the situation, however, the rough guess would be:

  Jan+DongJo 70%/30% (PHENIX/ALICE) in 06 probably going down to 50/50 in 07, other people are approaching 50/50 from below. Some of the new incoming students will concentrate entirely on PHENIX.

- We would also like to participate in the construction of the nose cone calorimeter…

NCC upgrade

Our group, represented by Markku Oinonen of Helsinki Physics Institute (HIP), has accomplished successfully assembly of 700 Si-strip detector modules (over 1 million individual channels were produced with over 3 million ultrasonic bonds) for ALICE exp. in the HIP Detector Laboratory . http://www.hip.fi/research/detlab/index_en.htm



HIP detector laboratory equipment

Automatic wire/TAB bonder
F&K Delvotec 6400
movable bondhead
200 x 150 mm working area

Semiautomatic wire/TAB bonder
Kulicke-Soffa 4523 AD

+ wafer/chip probe station, prog. ovens etc.

The goal would be to use HIP Detector Laboratory premises to participate in pre-shower and shower-max strippixel sensors assembly.