

- **Summary of the MVD mechanics workshop of February in Bonn**

G. Giraudo, Torino

- **Readout Controller Design for the MVD-Si-Strip-Sensors**

H. Sohlbach, Fachhochschule Südwestfalen

Upgrade of ASIC-Testsystem

S. Esch , FZ-Jülich

Overview of MVD-Simulation Software

T. Stockmanns, FZ-Jülich

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- **Towards the MVD TDR - Discussion**

chaired by D. Calvo, T. Stockmanns

TDR

- 1 Introduction**
- 2 Monte Carlo simulations**
- 3 Silicon pixel part**
- 4 Silicon strip part**
- 5 Integration**
- 6 Organization and planning**

1 Introduction

1.1 Physics

Motivation....Motivations
for mvd, + discussion with
tracker people and
management to evaluate a
general introduction to
tracker

1.2 The PANDA

Experiment...we wait to
know if we have a general
tracking tdr

1.3 MVD Layout...Thomas can write this part

2 Monte Carlo simulations

2 Silicon Pixel Part

| | |
|---|---|
| Torino/Jlich | 2.4.1 Bump Bonding |
| | 2.4.2 FE Wafer Thinning |
| 2.1 Hybrid Pixel Assembly Concept (Danida) | 2.5 ToPix ASIC prototypes (Torino) |
| | 2.5.1 ToPix_v1 Prototype |
| 2.2 Sensor (Danida) | 2.5.1.1 Design and production |
| | 2.5.2 ToPix_v2 Prototype |
| | 2.5.2.1 Design and production |
| 2.2.1 Technology choice Epitaxial or Ox silicon | 2.5.3 ToPix_v3 Prototype |
| 2.2.1.1 Design | 2.5.3.1 Design and production |
| 2.2.1.2 Tests/Radiation damage | 2.5.4 Fullsize Prototype |
| 2.2.2 Fullsize Prototype Sensors | ??????????? |
| 2.2.2.1 Design | 2.6 Results |
| 2.2.2.2 Production | 2.7 Single chip assembly prototype |
| 2.2.2.3 Tests | |
| 2.2.3 Technology choice Epi vs. Oxygen | (Torino) |
| 2.2.4 Production | 2.7.1 description |
| 2.3 Readout architecture (Angelo, Gianni, Thaumu...) | 2.7.2 results |
| 2.3.0.1 Design | 2.8 Controller Chip ??????????? |
| 2.4 Hybridisation (Danida) | 2.9 Module (Torino) |
| | 2.10 Bus-Flex Hybrid (Torino) Design/Prototype (?) |

4 ← **3 Silicon strip part**

Bonn and Jülich

3.1 Double sided silicon detectors

3.2 Barrel Sensors

Bonn

3.3 Wedge Sensors

Bonn

3.4 Front-End

Bonn/Jülich

3.4.1 Requirements

3.4.2 Options

3.5 Controller Chip???

Bonn

3.6 Hybridisation

Bonn/Jülich

3.7 Prototypes and results

bonn/Jülich

5 Integration...

Optical Data Transmission (Julich)

Gbit

Optoboards

Off-Detector Electronics (Julich)

Counting Room Electronics (Julich)

Integration with Compute-Node} (discussion with Igor
and Wolfgang/Tobias will contact people) (Torino/JYlich)

..... 5 Integration....

Power supply system (Turin-Gianni/Paolo + Bonn-Hans)
Powering Concept

Request for strips and pixel-integration

Design

Power Distribution

Grounding/Shielding (just to remember us)

LV Power supplies

HV Power supplies

Power regulators

Design (?)

..... 5 Integration....

Cables (Torino, . . .)

Requirements

Signal cable

AI prototype/Results

Power cable/selection

Routing scheme (Beppe + others)

..... 5 Integration....

Mechanical Structures

Pixel part (Torino)

Strip part (Julich)

Global Support (Torino-Beppe)

Cooling system (Torino)

Cooling plant (Silvia and Beppe)

Cooling distribution(Silvia and Beppe)

DCS (JÜlich - ZEL interface to DCS group / Dan P.

..... 5 Integration

Pixel Mounting (Torino)

Stave Assembly

Disk Assembly

Barrel Mounting

Disk Mounting

Strip Mounting (Bonn, Julich)

Stave Assembly

Disk Assembly

Barrel Mounting

Disk Mounting

MVD integration

MVD installation

Commissioning

6 Organization and planning

Organization

Participating institutes

Work planning

Planning and milestones

Cost estimates and man power