Summary

New detector ideas

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R.Cardarelli

New detector ideas

innovative resistive electrode

- 50. Development of ultra-low mass and high-rate capable RPC based on Diamond-Like Carbon electrodes for MEG II experiment

  Kensuke Yamamoto (The University of Tokyo)

- The Surface Resistive Plate Counter

  Giovanni Bencivenni (INFN e Laboratori Nazionali di Frascati (IT))

in these two presentations the use of surface resistivity instead of volume resistivity is proposed, this solution has advantages and disadvantages, further experimentation is necessary

New detector ideas

innovative resistive electrode

- 73. SI-GaAs wafers as resistive electrode for high rate RPC with very low dark count rate

Alessandro Rocchi , Barbara Liberti , Roberto Cardarelli

(INFN e Universita Roma Tor Vergata (IT))

this presentation proposes to use a resistive electrode formed by a semiconductor mono crystal whose surface is so flawless that spurious pulses are a negligible number and given the low volume resistivity it can reach very high counting rate capacity

New detector ideas

innovative geometry resistive electrode

- Development of Resistive Cylindrical Chambers

Roberto Cardarelli (INFN,Università Roma Tor Vergata and Unige)

in this presentation a cylindrical geometry is proposed instead of flat, this variation leads to the creation of an almost uniform electric field with considerable consequences in the development of the electronic avalanche

New experiments
cosmic ray

- . The RPC in the cosmic ray physics of the next future

  Rinaldo Santonico (INFN e Università Roma Tor Vergata)

This presentation considers the use of RPCs in experiments for cosmic rays considering their intrinsic difference from those on accelerators.

Detector electronics and simulation

Front-end

- Design of the new RPCs and Front End electronics for the ATLAS High Luminosity LHC program

  Luca Pizzimento (INFN e Universita Roma Tor Vergata (IT))
- 14. CMS iRPC FEB development and validation

  Maxime Gouzevitch (Centre National de la
- 96-channel Time-to-Digital converter (TDC) for the CMS Phase 2 Upgrade of the RPC Link System

  Behzad Boghrati (Institute for Research

in these presentations the front-end electronics of the RPCs of the ATLAS and CMS experiments are described

Detector electronics and simulation

- 34. Simulation of the avalanche creation in resitive circular chambers
- Oliver Kortner (Max Planck Society)
- Parallelization of Garfield++ and neBEM to simulate space charge effects in RPCs

  Tanay Dey

these two presentations show the simulation of the avalanche evolution inside a cylindrical detector and in a plane detector but in the presence of a space charge field

Detector electronics and simulation

- 3. The reflection readout method of RPC
- Yuexin Ding (University of Science
- R&D on signal transmission on thin-gap RPC
- Zirui Liu (University of Scien

a new method of locating the position of the passage of a particle by measuring the arrival time of the direct and reflected signals. this method saves the number of front-end channels and therefore costs, in fact the greater complexity and cost of the electronics makes this method not so convenient

Conclusions

Thank you for your participation and the excellent developments presented