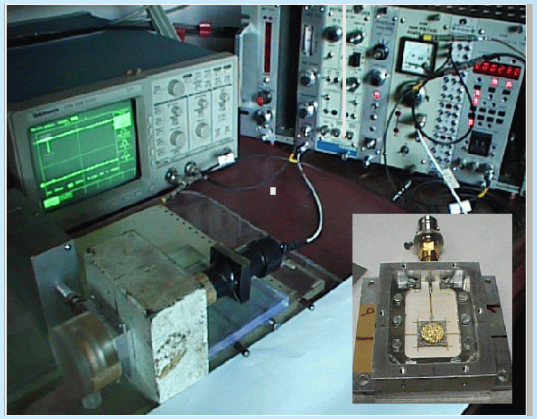
NIPNE - Bucharest
Interests and Contributions in NoRHDia

Participants: *Gheorghe Caragheorgheopol,*
Mariana Petris, Mihai Petrovici

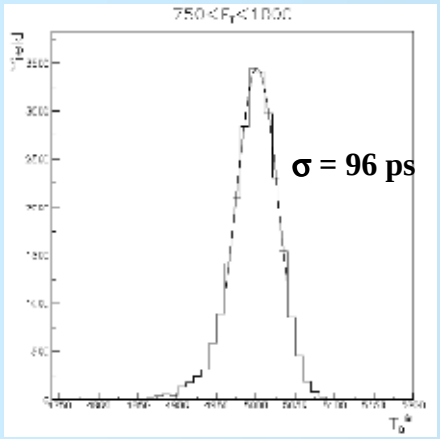
Members of the "Nuclear Interactions and Hadronic Matter"
Center of Excellence - NIPNE, Bucharest

Activity and Results: *CVD-DD characterization and use for high resolution timing detectors for MIPs.*
Contributions to the development of new FEE (low noise, broad band).

MIP Timing with PC – CVD DD



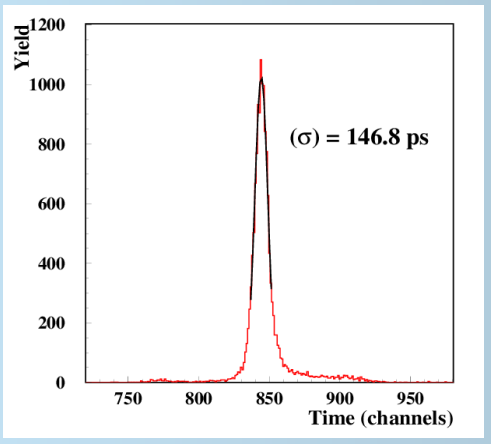
PC – DD: 500 µm; 1.5V/µm
FEE : DBA



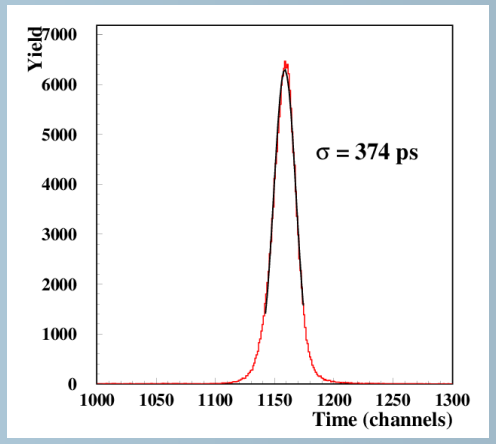
1st NoRHDia Workshop, 2004

MIP Timing with SC – CVD DD

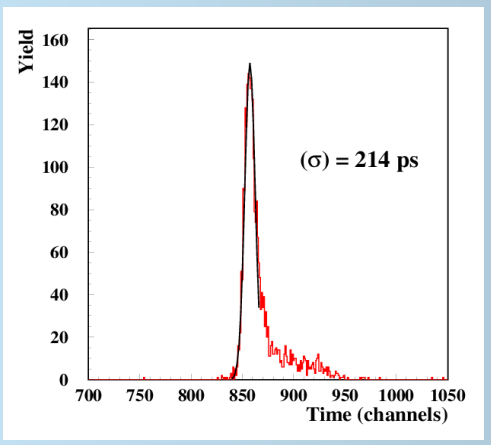
SC-DD: 300 µm; 1V/µm
FEE: RPC-FEE



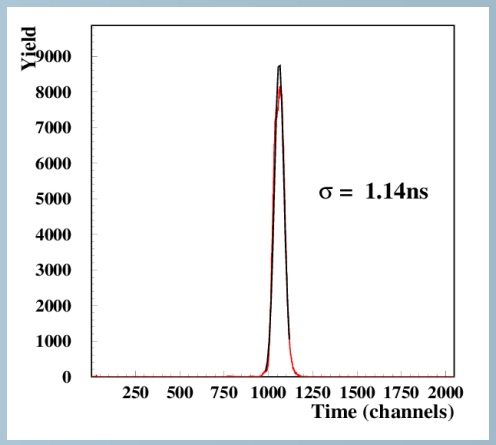
SC-DD: 300 µm; 1V/µm
FEE: CSA



SC-DD: 500 µm;1V/µm
FEE: RPC-FEE



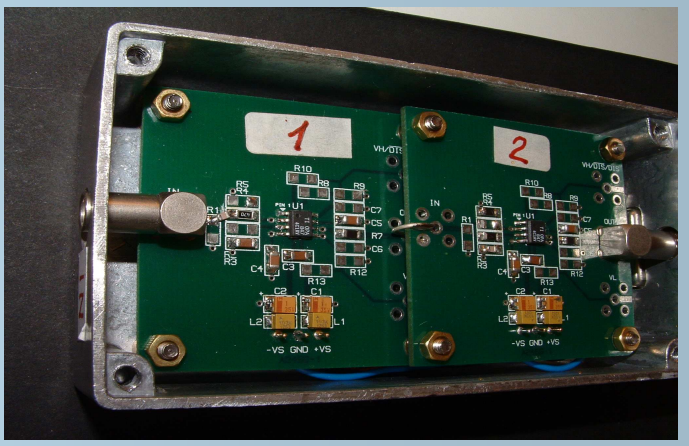
SC-DD: 500 µm; 1V/µm
FEE: CSA



CBM Progress Report 2006, p.27

Electronics

- *Design and construction of a charge sensitive preamplifier/shaper with: gain = 200, shaping: CR-RC, 10 ns*
  2nd NoRHDia Workshop 2005



- *Systematic comparative measurements on broad-band FEE and charge – sensitive FEE*
  2nd NoRHDia Workshop 2005
  3rd NoRHDia Workshop 2006

- *Contribution to the development of a solution of a fast CSA*

Activities in a new FP7 project:

- *^{90}Sr source and in beam CVD-DD characterization*
- *Multilayer and tilted geometry of thin SC – CVD DD*
- *Contributions to the development of a new generation of fast amplifiers: low noise (high efficiency), good time resolution*