



Contribution ID: 68

Type: **not specified**

A Piggyback resistive Micromegas

Tuesday, 2 July 2013 16:20 (25 minutes)

Piggyback Micromegas consists in a novel readout architecture where the anode element is made of a resistive layer on a ceramic substrate. The resistive layer is deposited on the thin ceramic substrate by an industrial process which provides large dynamic range of resistivity (10^6 to 10^{10} M Ω). The particularity of this new structure is that the active part is entirely dissociated from the read-out element. This gives a large flexibility on the design of the anode structure and the readout scheme. Without significant loss, signals are transmitted by capacitive coupling to the read-out pads. The detector provides high gas gain, good energy resolution and the resistive layer assures spark protection for the electronics. This assembly could be combined with modern pixel array electronic ASICs. First tests with different Piggyback detectors and configurations will be presented. This structure is adequate for cost effective fabrication and low out gazing detector. It was designed to perform in sealed mode and its long term stability has been extensively studied. In addition perspectives on the future developments will be evoked.

Presenter: FERRER RIBAS, esther

Session Classification: Tuesday (MPGD afternoon session)