

## Minutes of the Joint MVD & Tracking Session on Sep-6<sup>th</sup>, 2017

Two presentations were given, one by Alessandra (Ale) Lai about the MVD system, the other by Peter about the STT system. Slides are uploaded to the meeting page (<https://indico.gsi.de/event/6361/>).

Ale gave a comprehensive overview about the MVD system and a status report. There are signs at the horizon that the current situation with a serious drop in person power for the chip design can be overcome and chip R&D can be picked up again by the group in Torino. The next, upcoming activity for the MVD is the execution of the beam test at COSY in Julich in about 2 weeks.

Peter summarized the current STT status. The production of the electronic readout components to set up pre-series test systems is ongoing and in time as planned. Shown were new results from the deuteron beam tests performed last november at COSY with the PASTTREC-ASIC/TRB3 readout connected to one of the two straw setups. After the beamtime cosmic ray measurements were performed. Finally, an overall spatial resolution (residuals) from 130 to 140  $\mu\text{m}$  was achieved for the different deuteron data sets and MIP cosmic which cover together a large signal dynamical range ( $dE/dx \sim 5\text{-}50 \text{ keV/cm}$ ). The obtained resolutions are significantly better than the design goal of 150  $\mu\text{m}$  for the STT.

A new method was presented to extract the event time ( $t_0$ ) from the STT TDC raw hits alone. The method uses both the leading and trailing edge signal times and works without any trackfit. For the deuteron datasets a  $t_0$  resolution of about 6 ns was reached and 10ns for cosmic rays. Further studies of the method are ongoing.