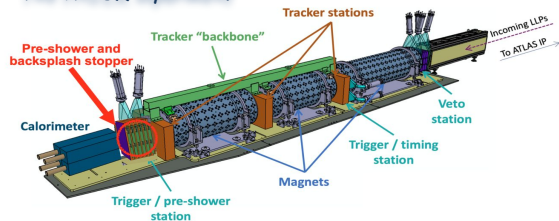


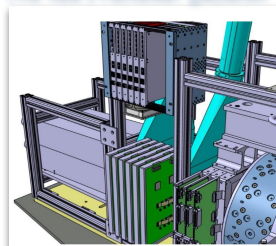
Development and simulation of a new preshower detector for the FASER experiment at the LHC

Rafaella Eleni Kotitsa on behalf of FASER Collaboration (CERN, UNIGE, rafaella.eleni.kotitsa@cern.ch)

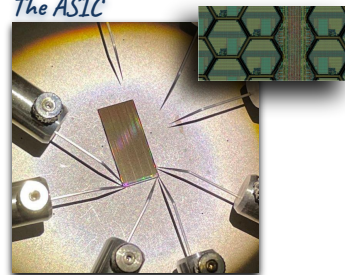
The FASER experiment



The new Preshower Detector



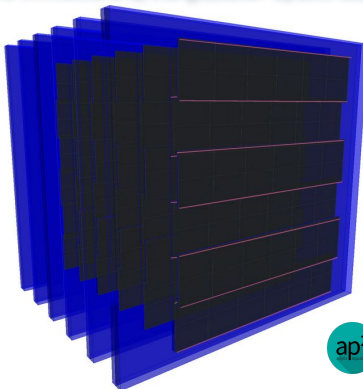
The ASIC



GOAL: A high granularity preshower detector, that is able to sample and reconstruct the 2 em showers and correctly identify their cores.

Space charge effect & large dynamic range in the detector ASIC.

The simulations & the Detector effects code



The ASIC simulation & results

