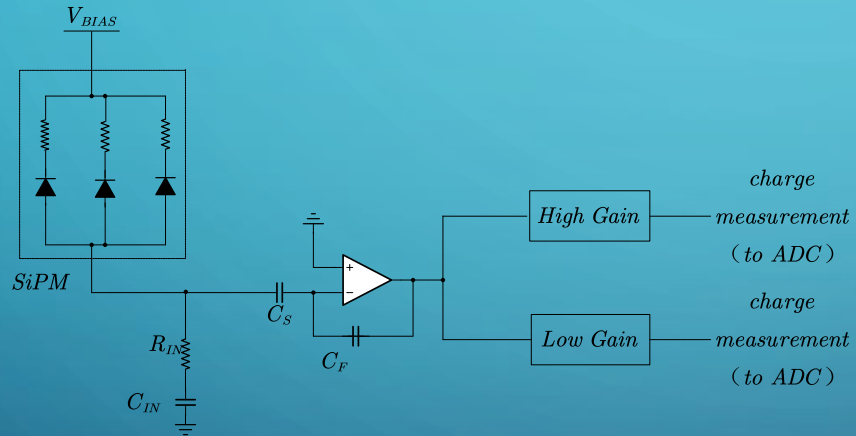


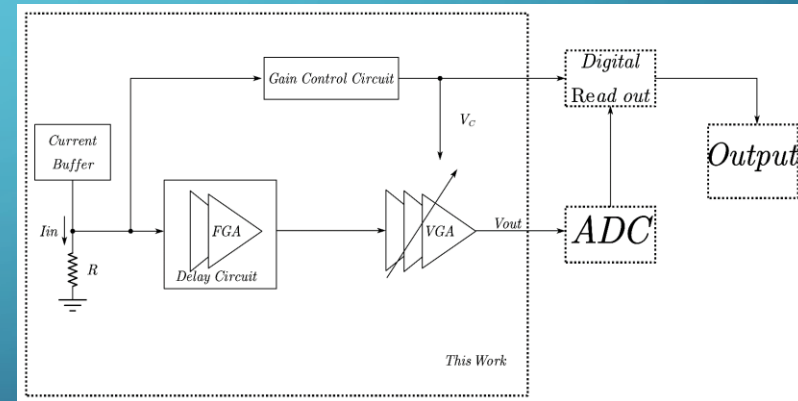
FAST-SETTLING HIGH INPUT DYNAMIC RANGE AUTOMATIC GAIN CONTROL FRONT-END CIRCUIT FOR PARTICLE DETECT

School: Central China
Normal University

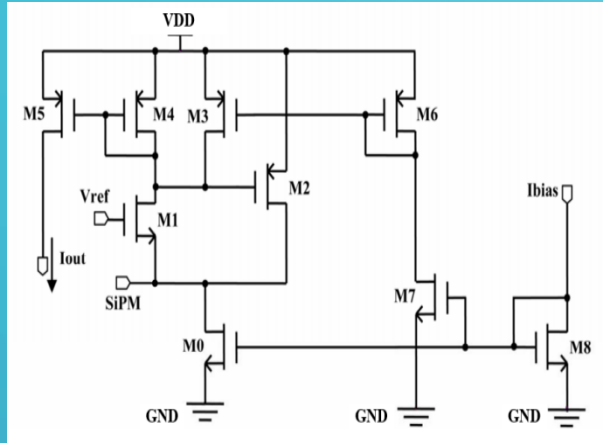
TRADITIONAL SiPM READOUT CIRCUITS



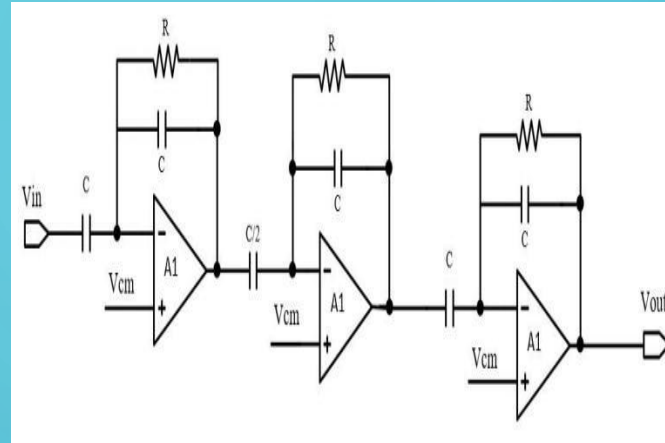
CIRCUIT WE PROPOSED



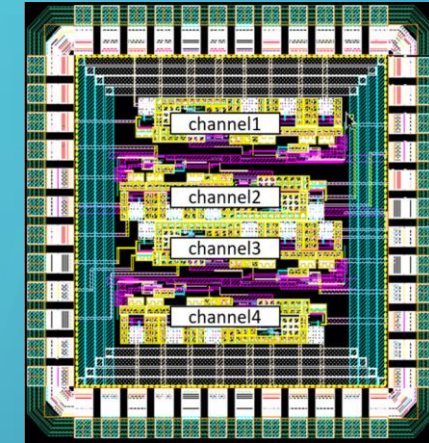
Current Buffer



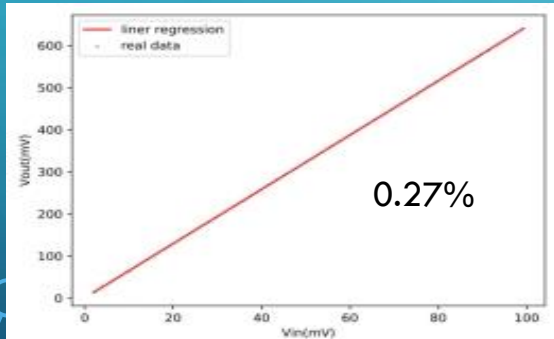
Delay Circuit



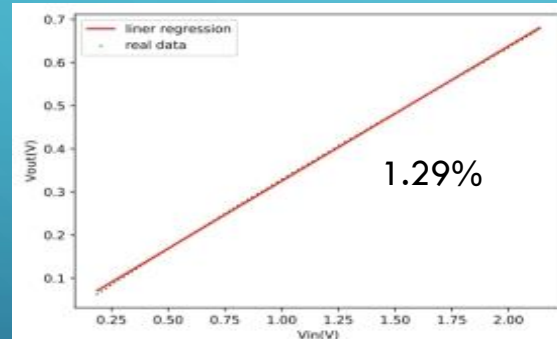
Layout of the die



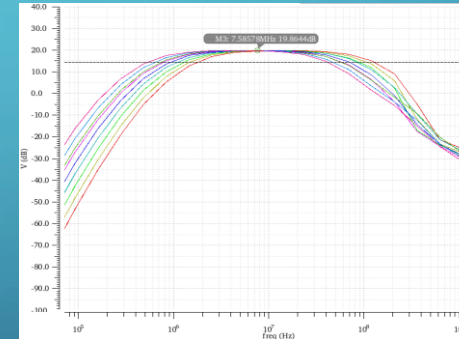
POST-SIMULATION RESULT



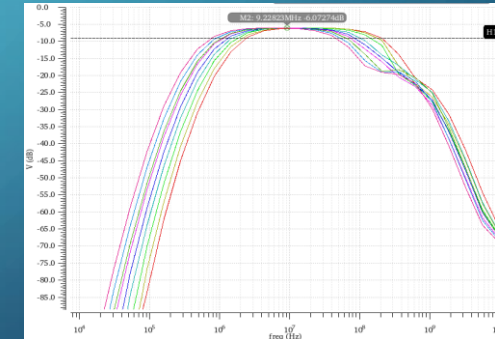
High gain



Low gain



High gain(19.73dB)



Low gain(-6.6dB)

LINEARITY

GAIN