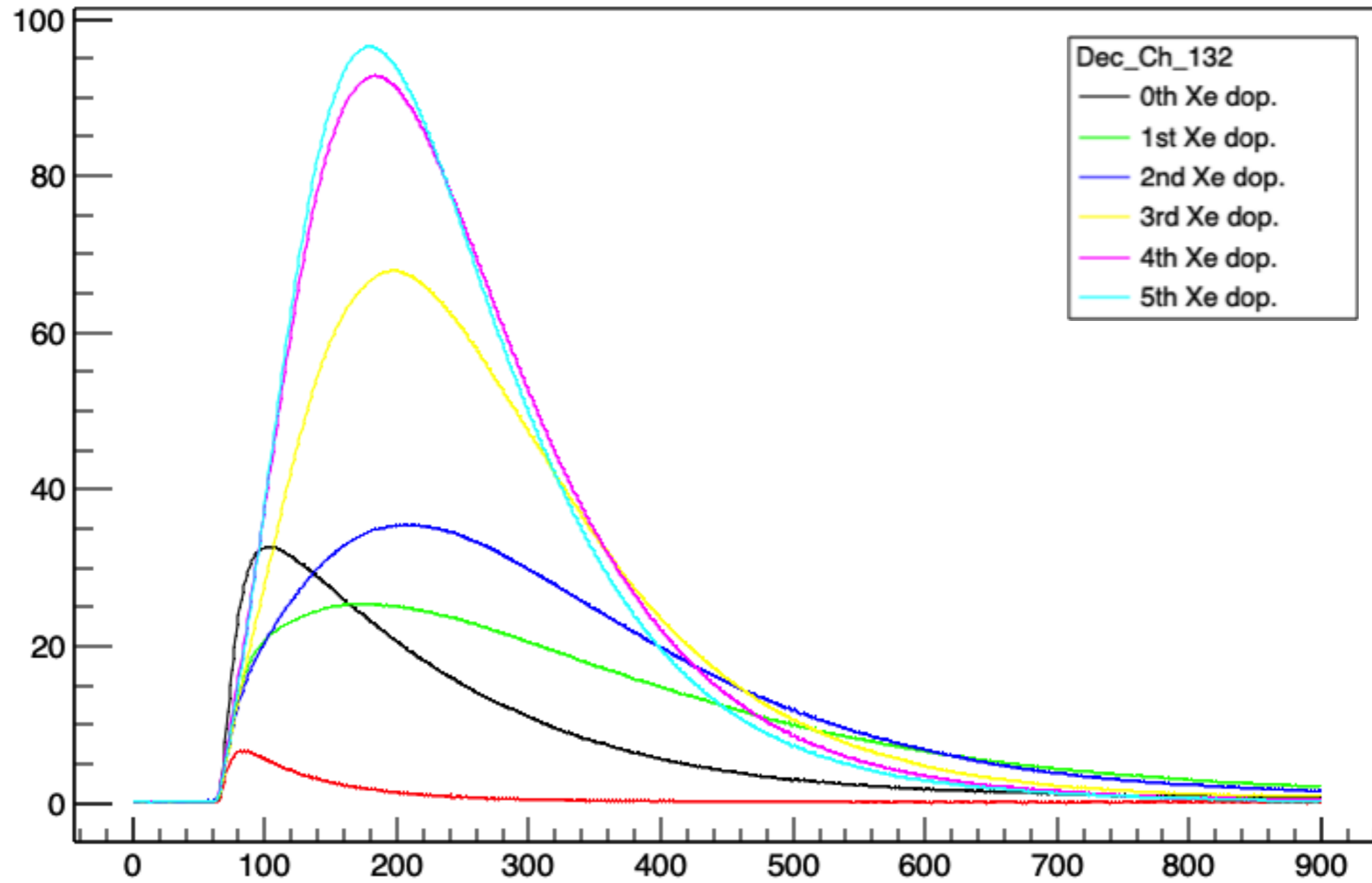


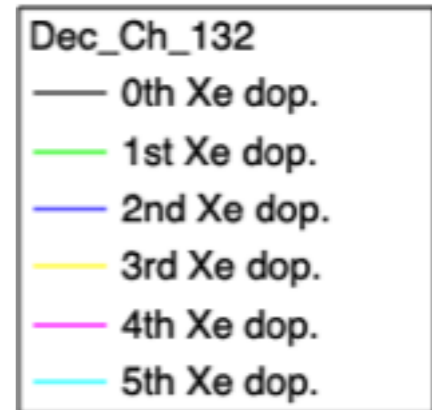
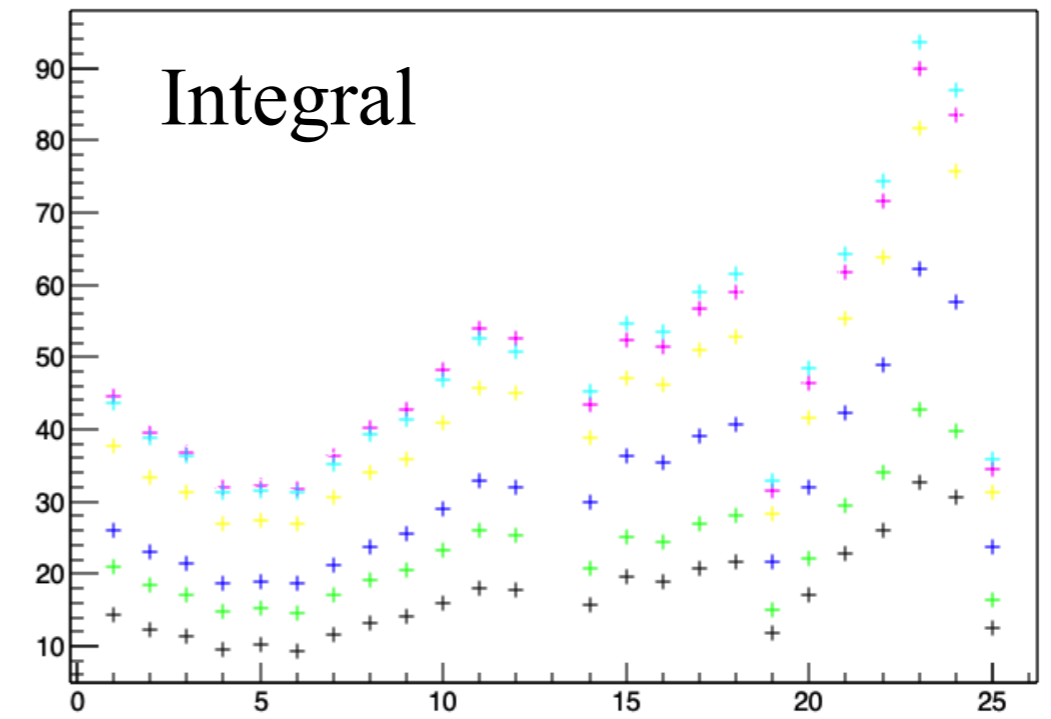
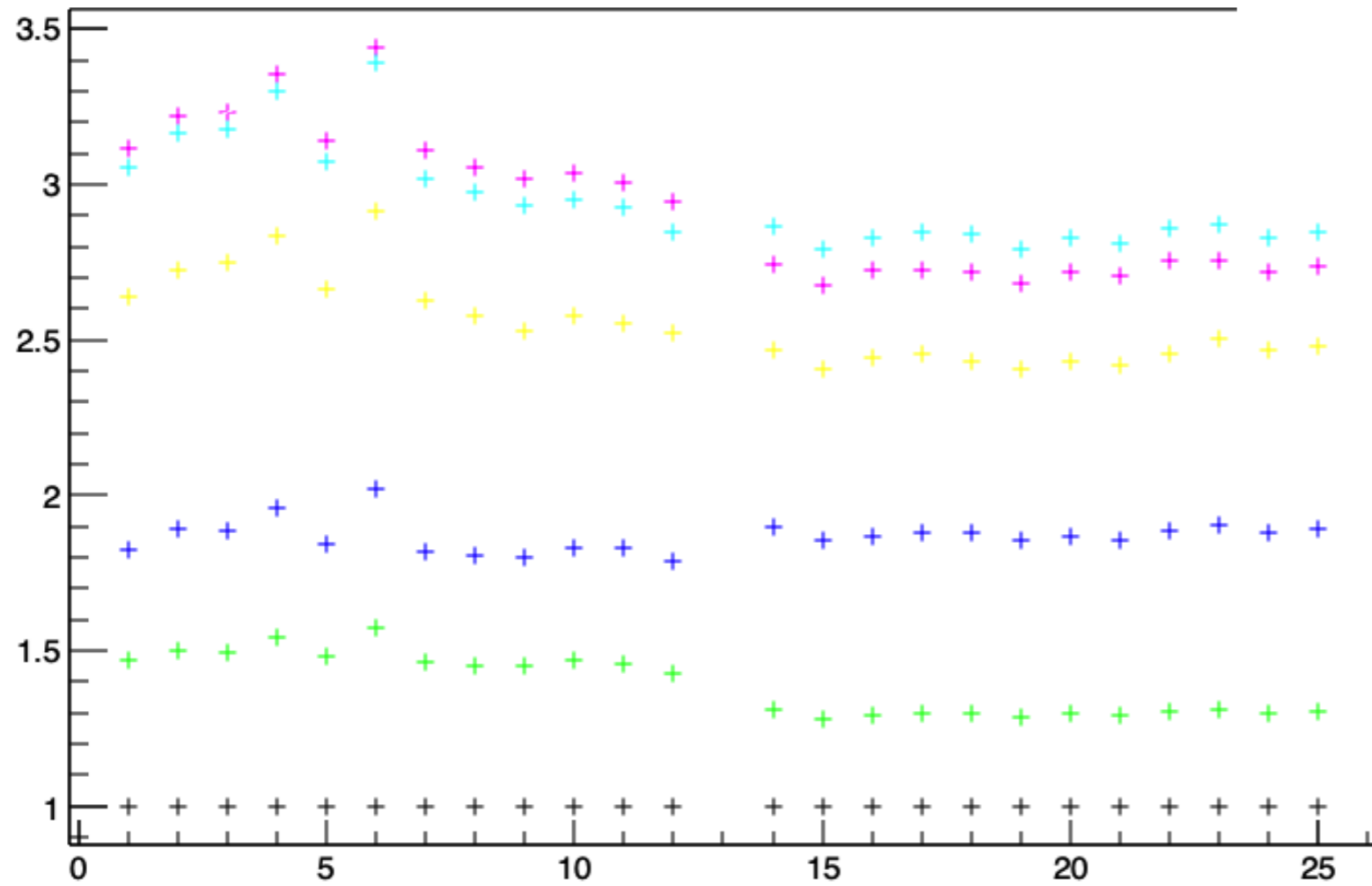
# Progress on Xe-doping analysis

Dante Totani  
Oct. 16th, 2020

# Channel 132, waveforms for all doping values (and SPE)

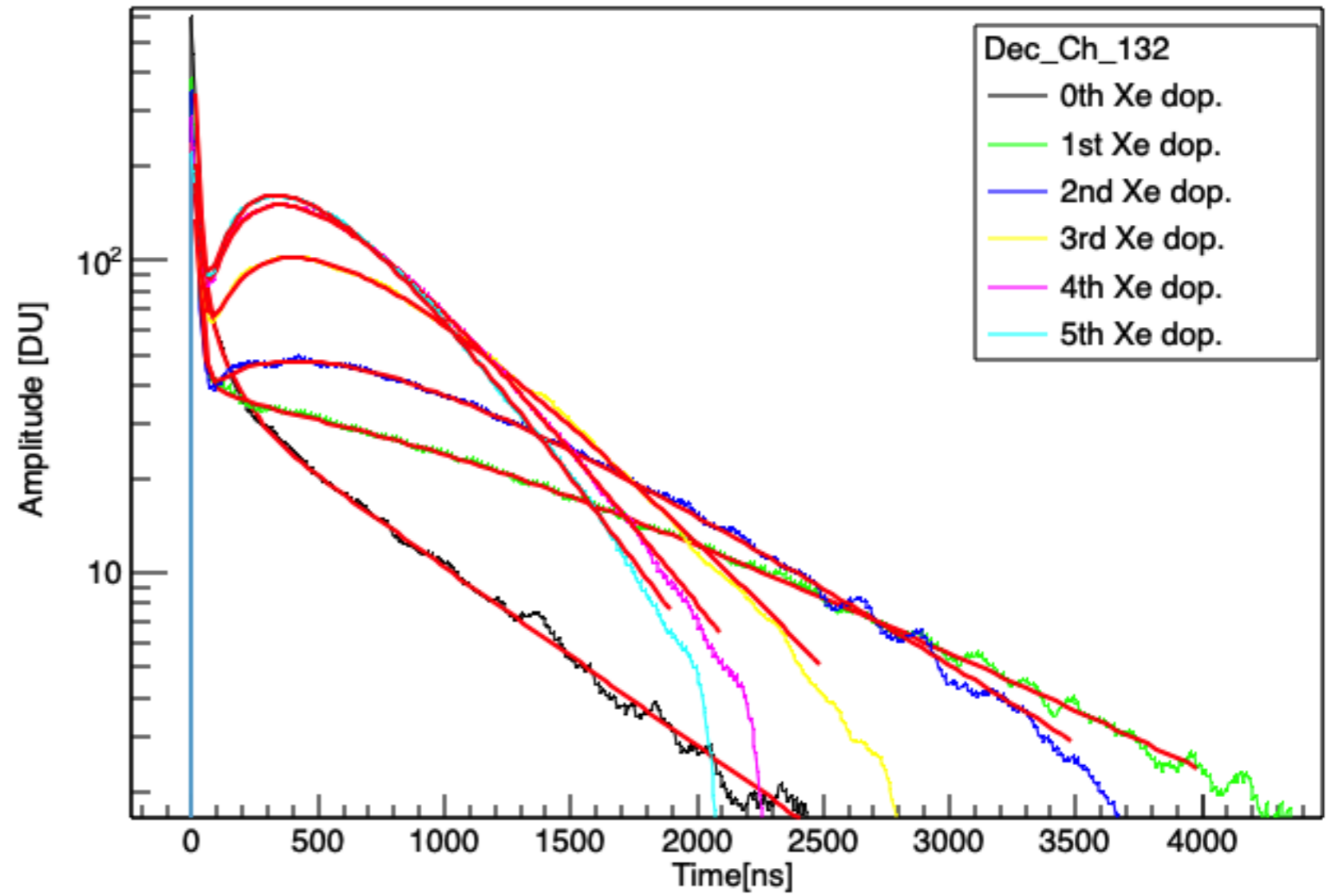
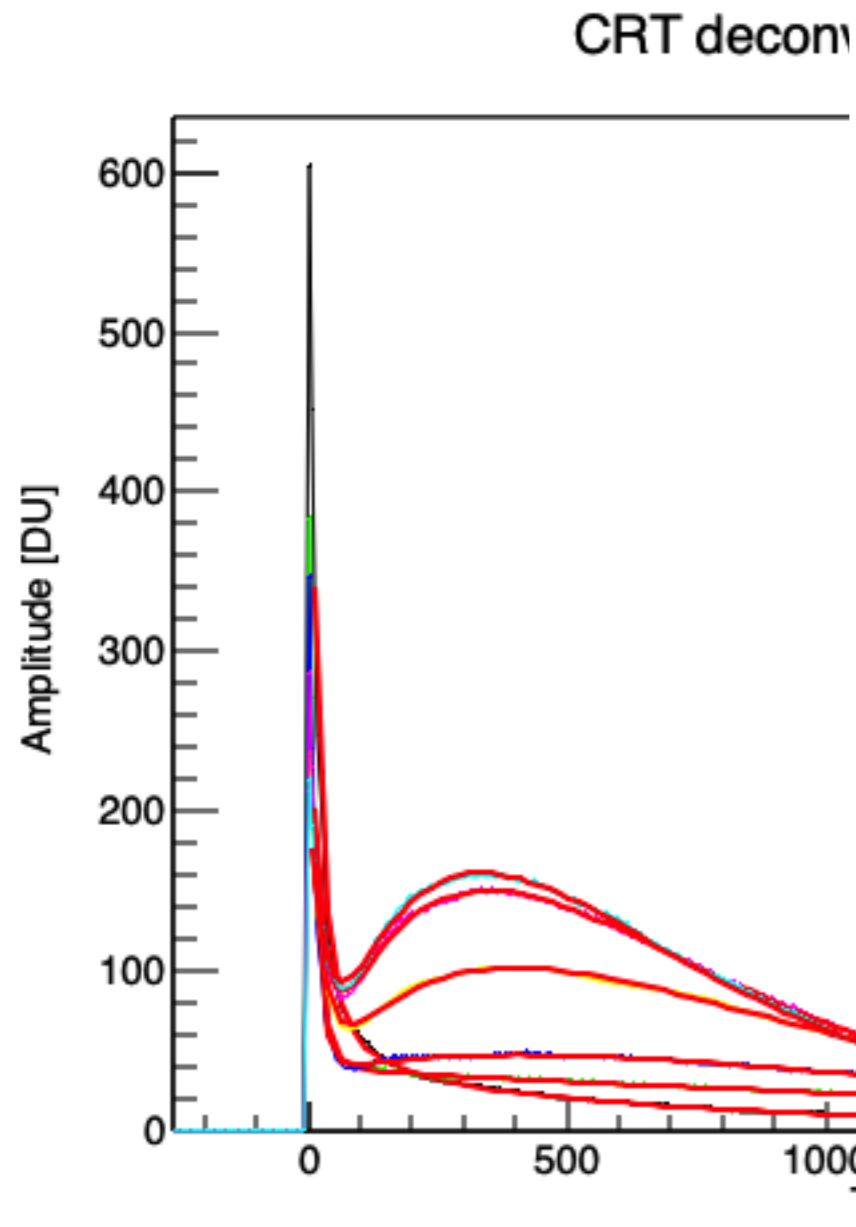


Integral normalized to doping 0

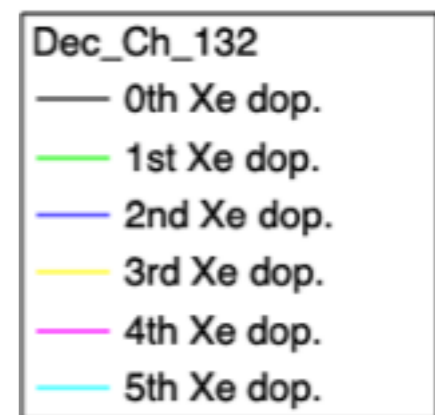
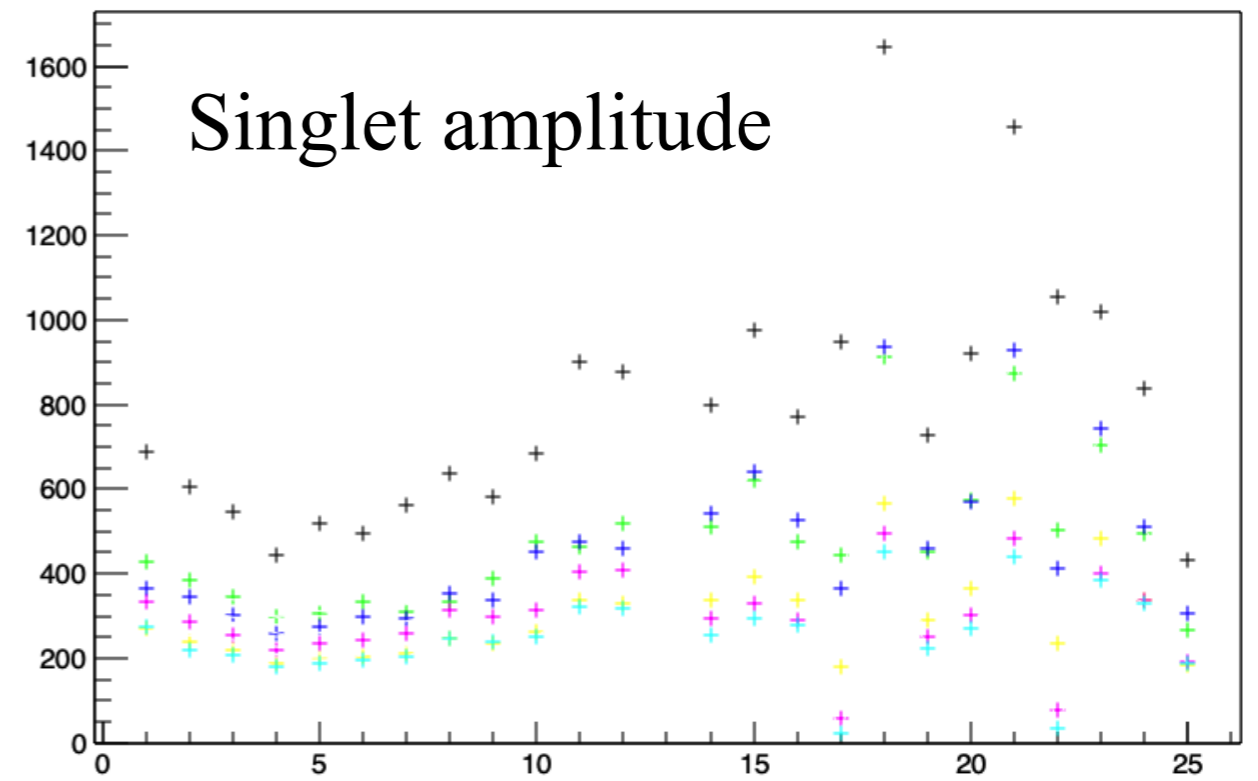
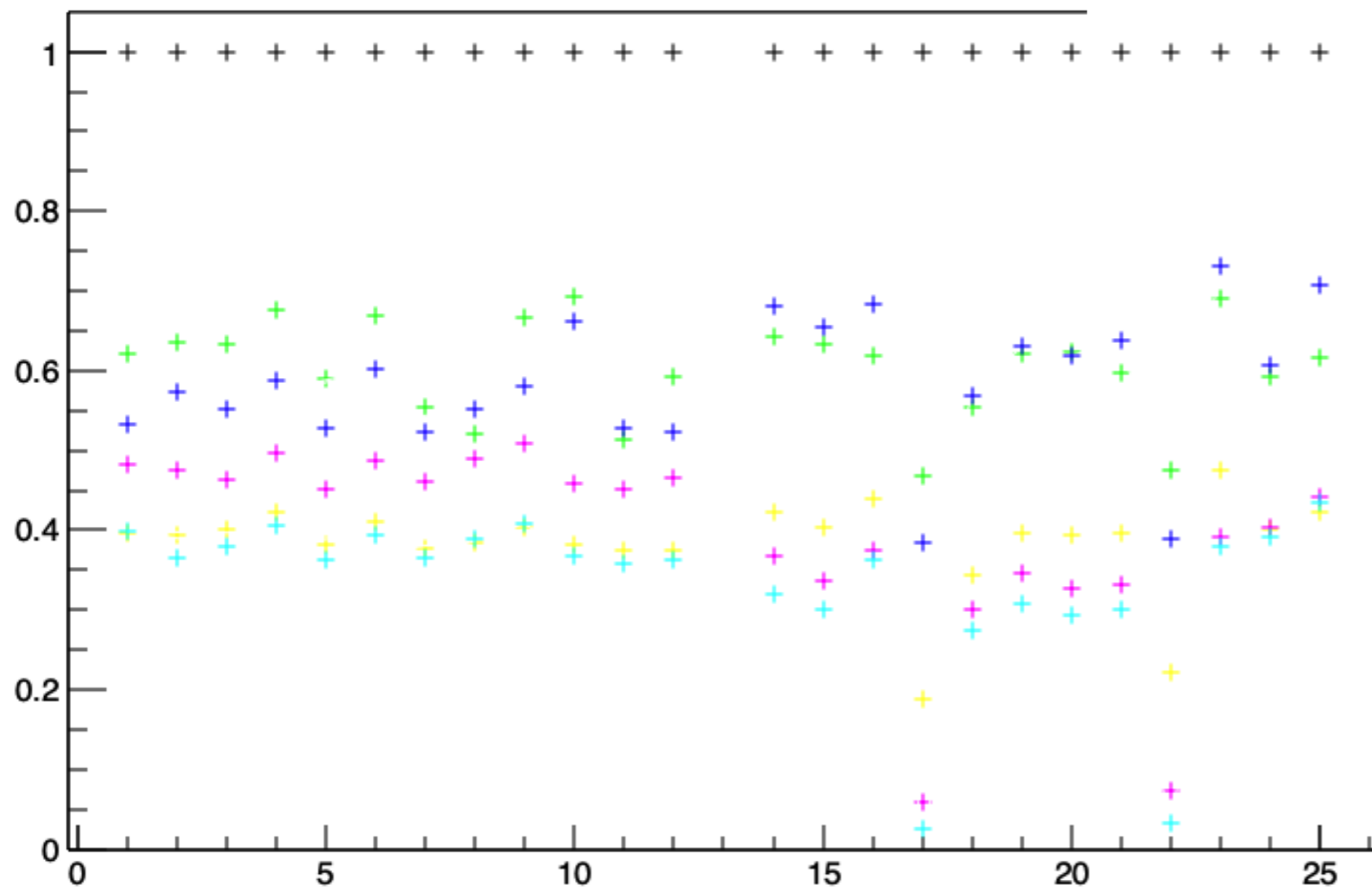


# Deconvolved wafers

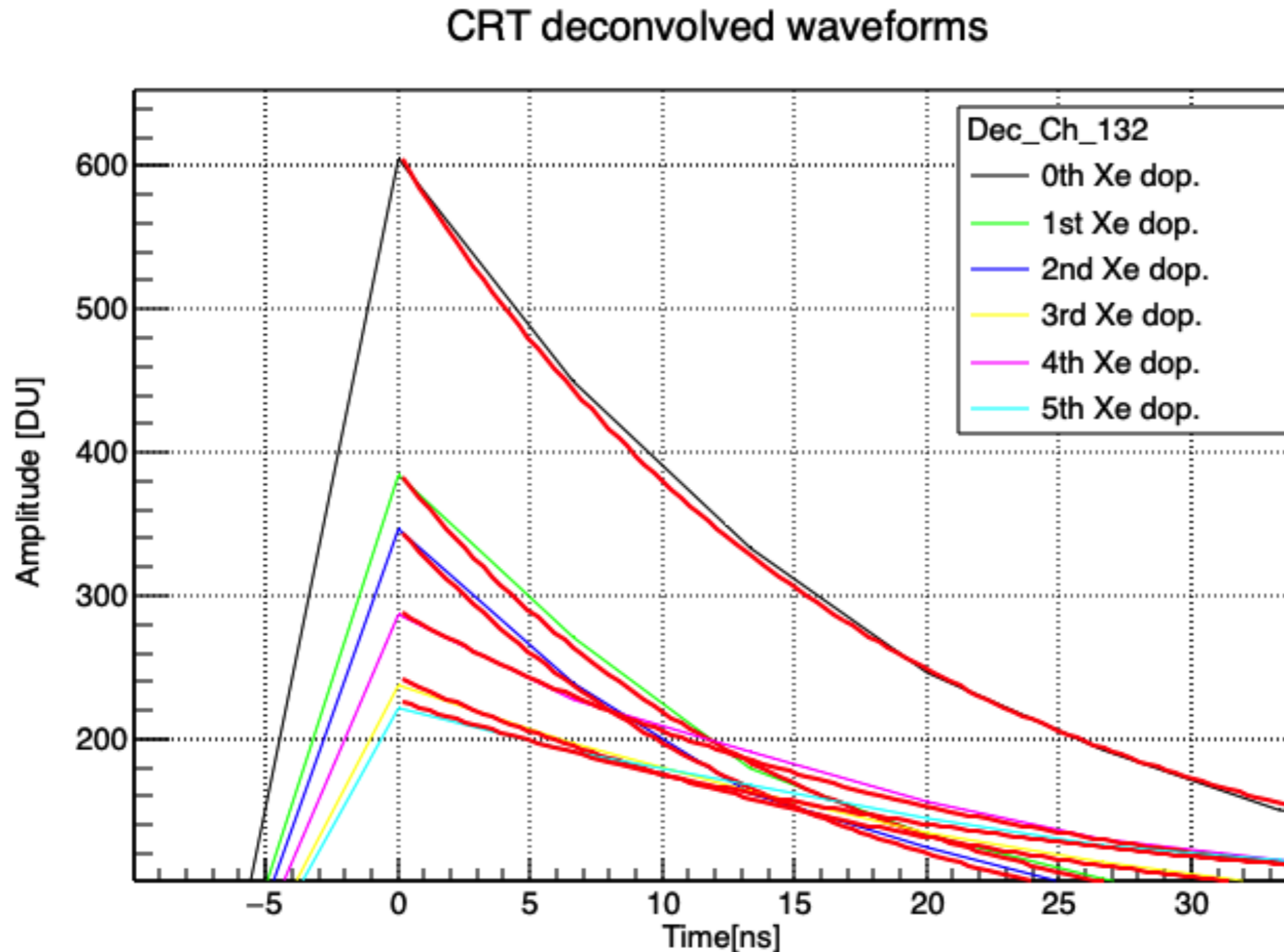
## CRT deconvolved waveforms



Singlet amplitude normalized  
to doping 0

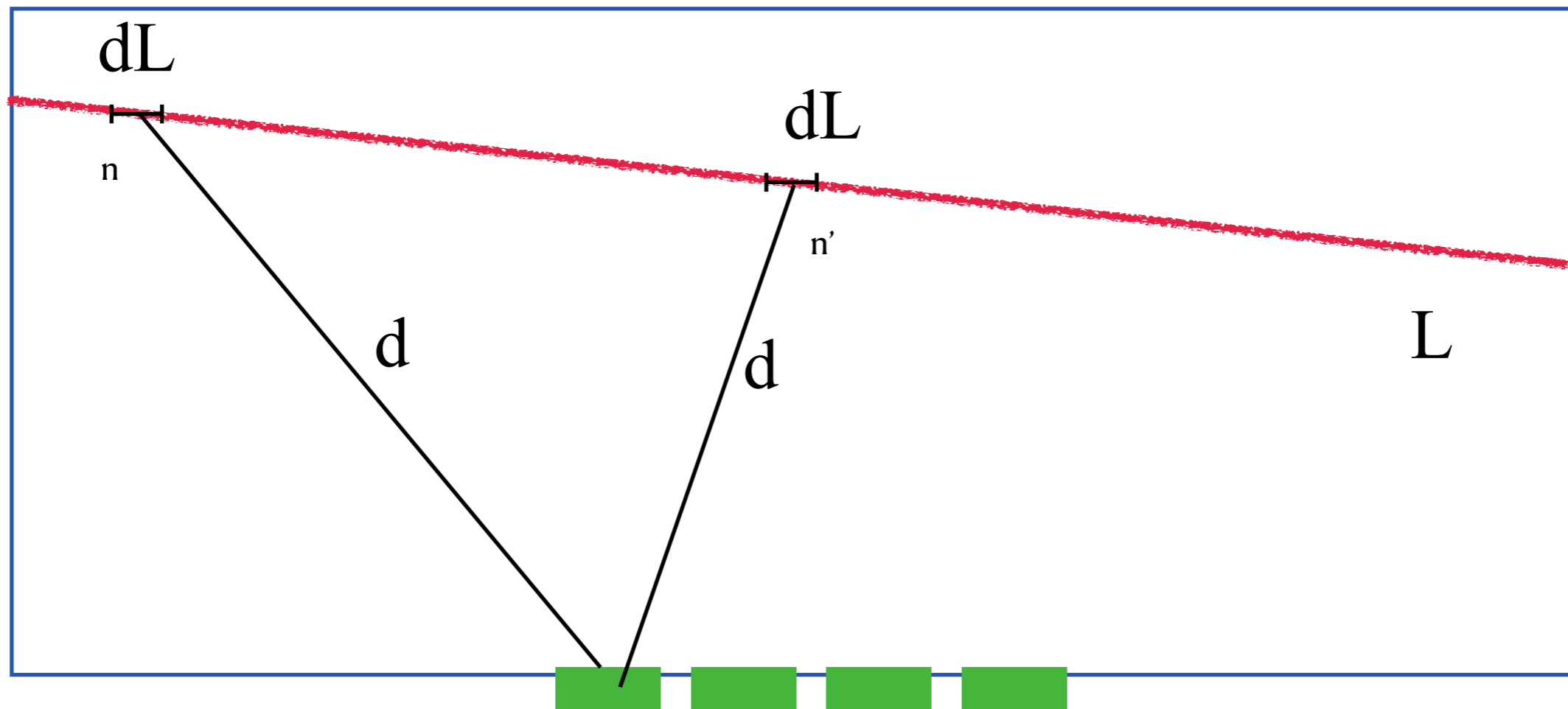


Singlet amplitude reduction has been observed from S-Arapuca, X-Arapuca (independent detector in single phase), and PMT in dual-phase. It is under investigation.



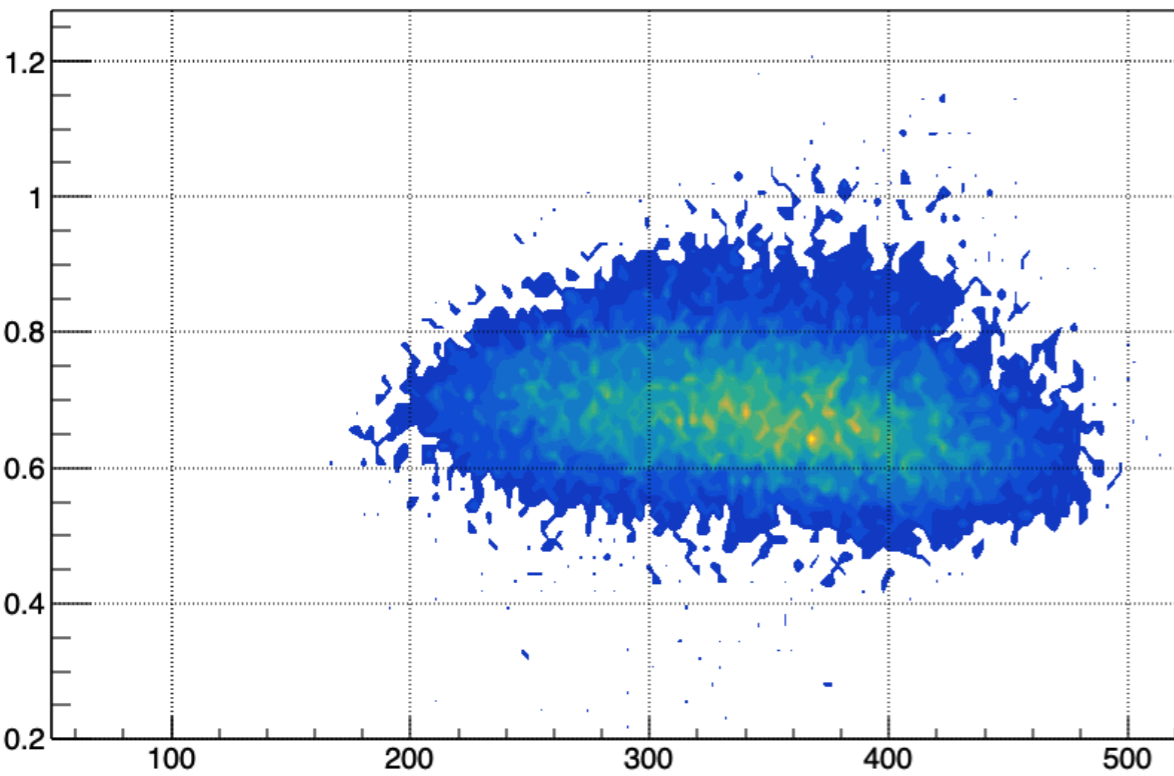
More investigations are needed regarding Rayleigh scattering and edge effect (reflections)

Weighted average of the distance:  $\langle d \rangle = \frac{1}{N_{tot}} \sum (d \cdot n)$



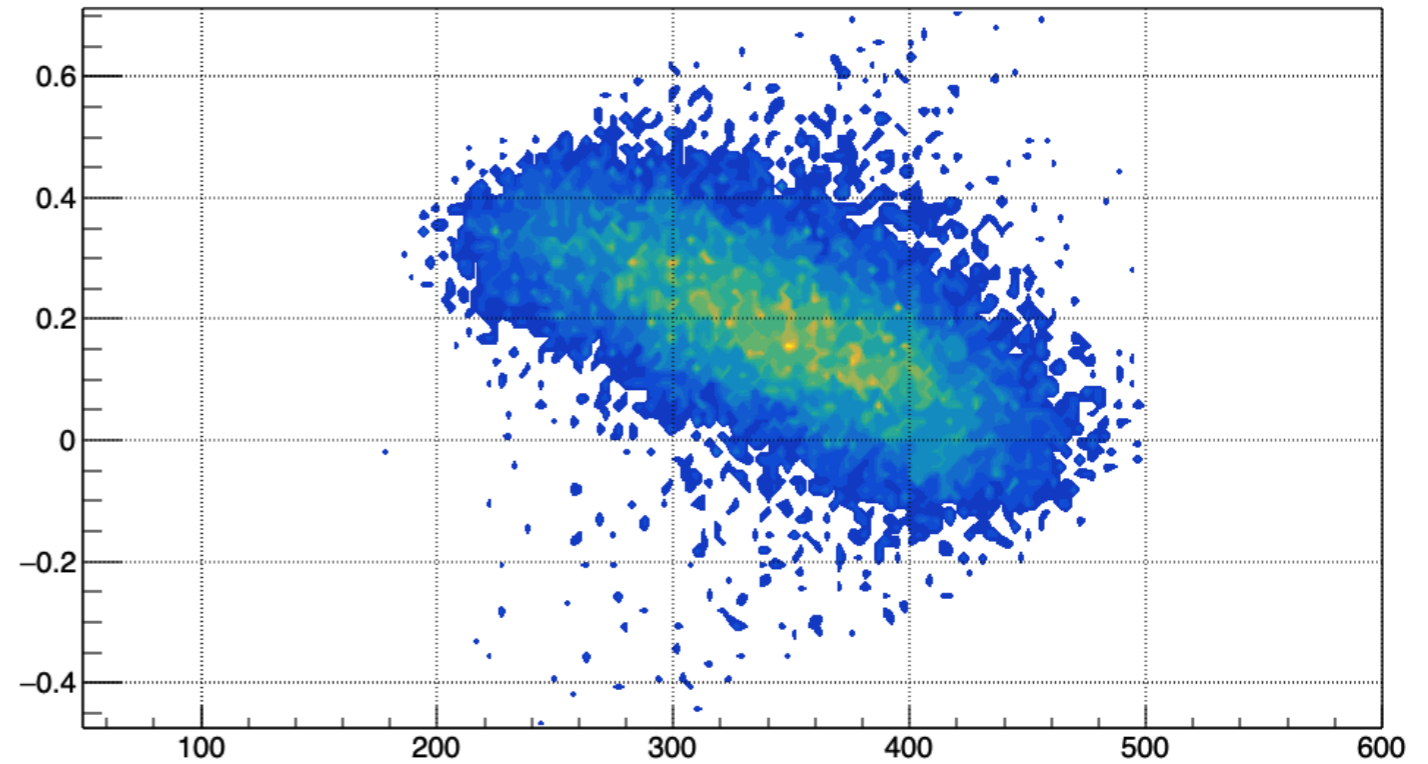
# Xe= 18.8 ppm

Log(PE/PH) vs <R>p Arap 1



# Xe= 0 ppm

Log(PE/PH) vs <R>p Arap 1



PH takes into account only geometrical acceptance:  
Rayleigh scattering and wall reflections have to be included