

# Xenon Doping

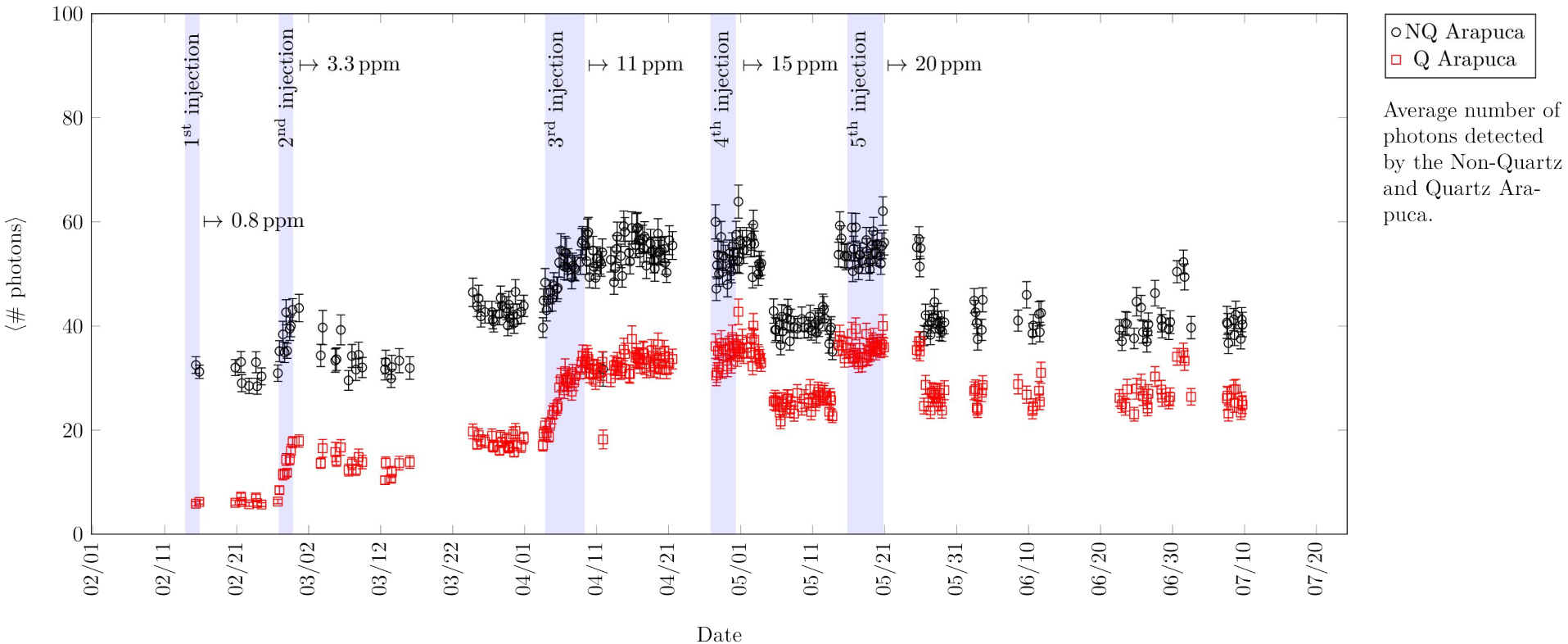
Niccolo' Gallice, Henrique Souza  
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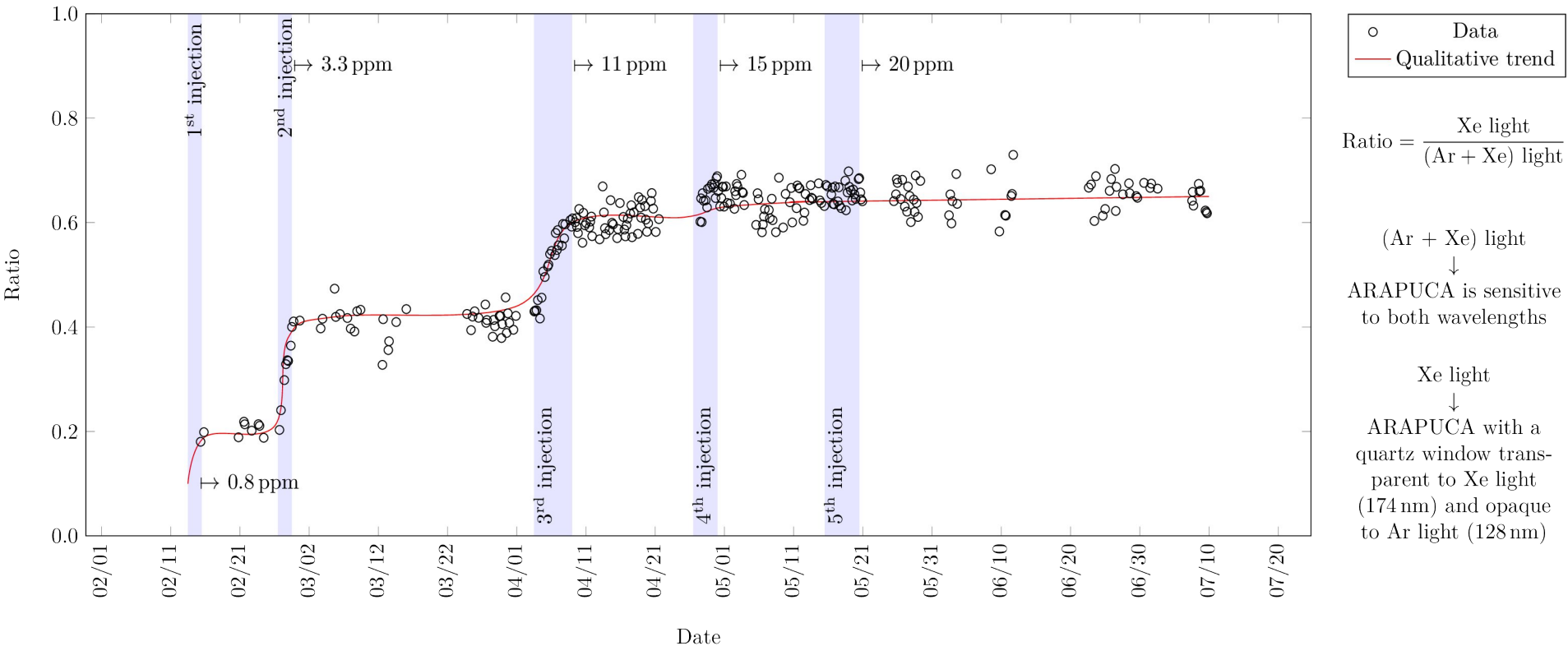


# Collected light



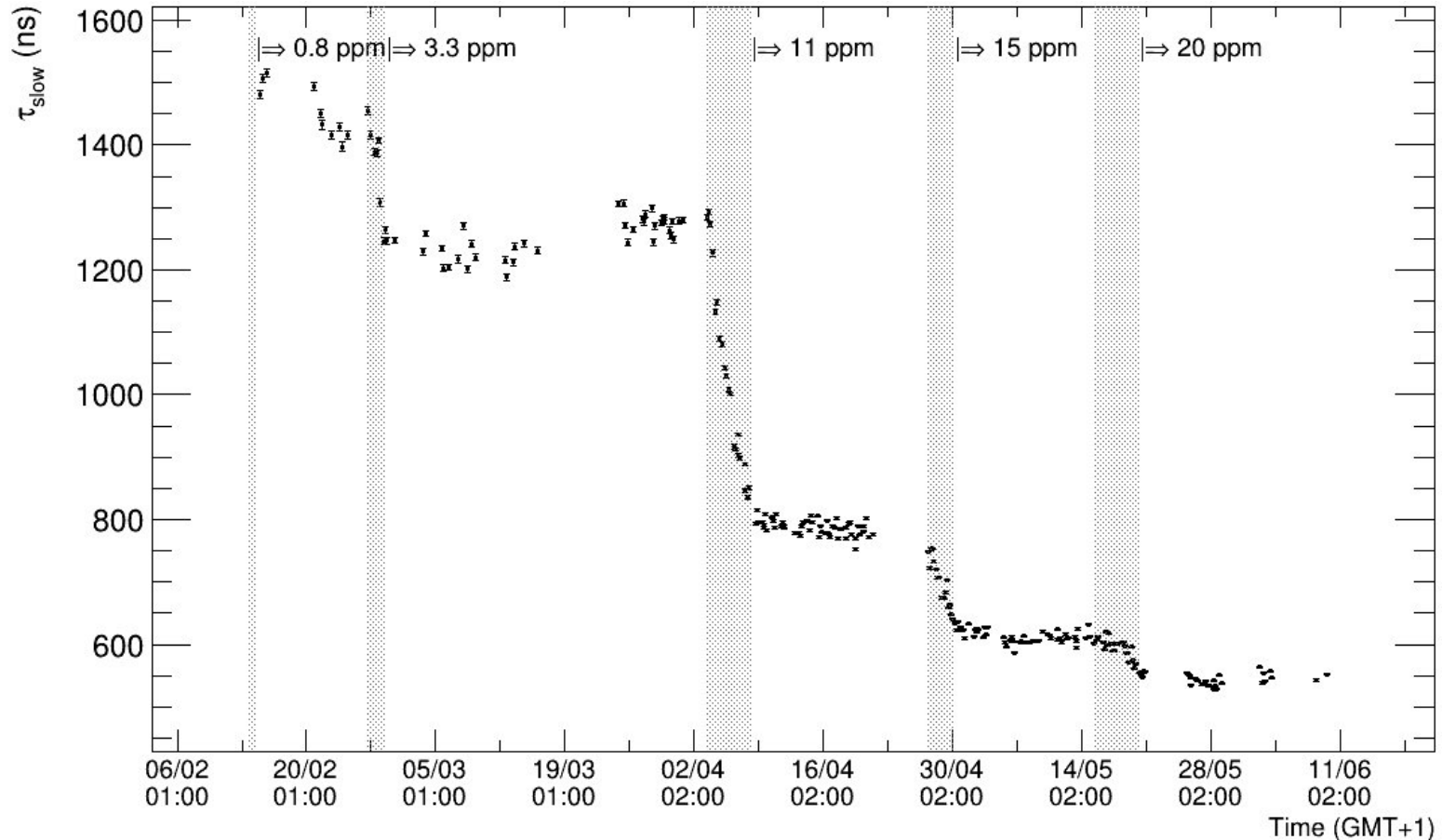
- Average photons detected by X-Arapucas

# Ratio



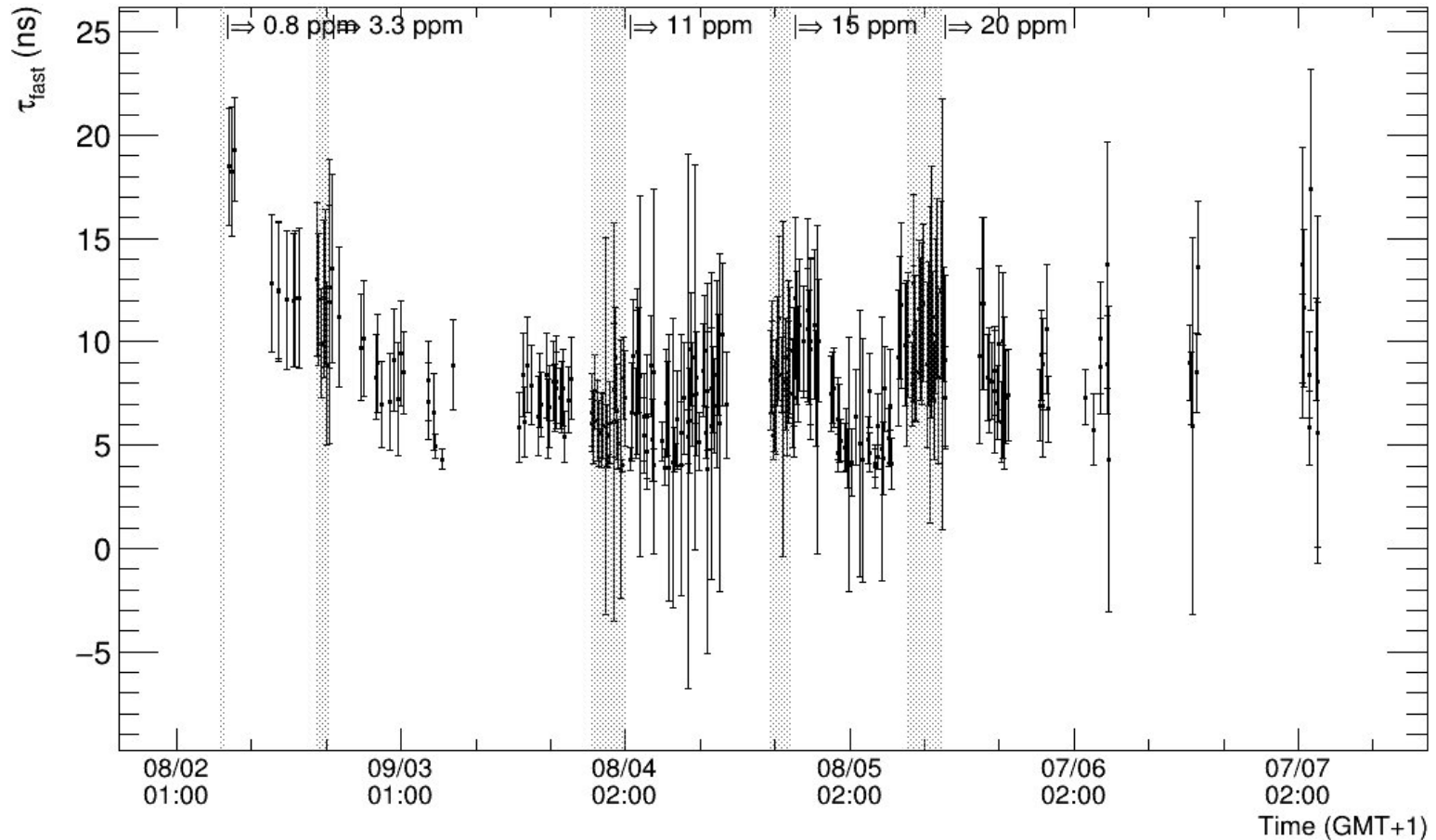
- Amount of light shifted from LAr to Xe

# $\tau_s$ - deconvolution



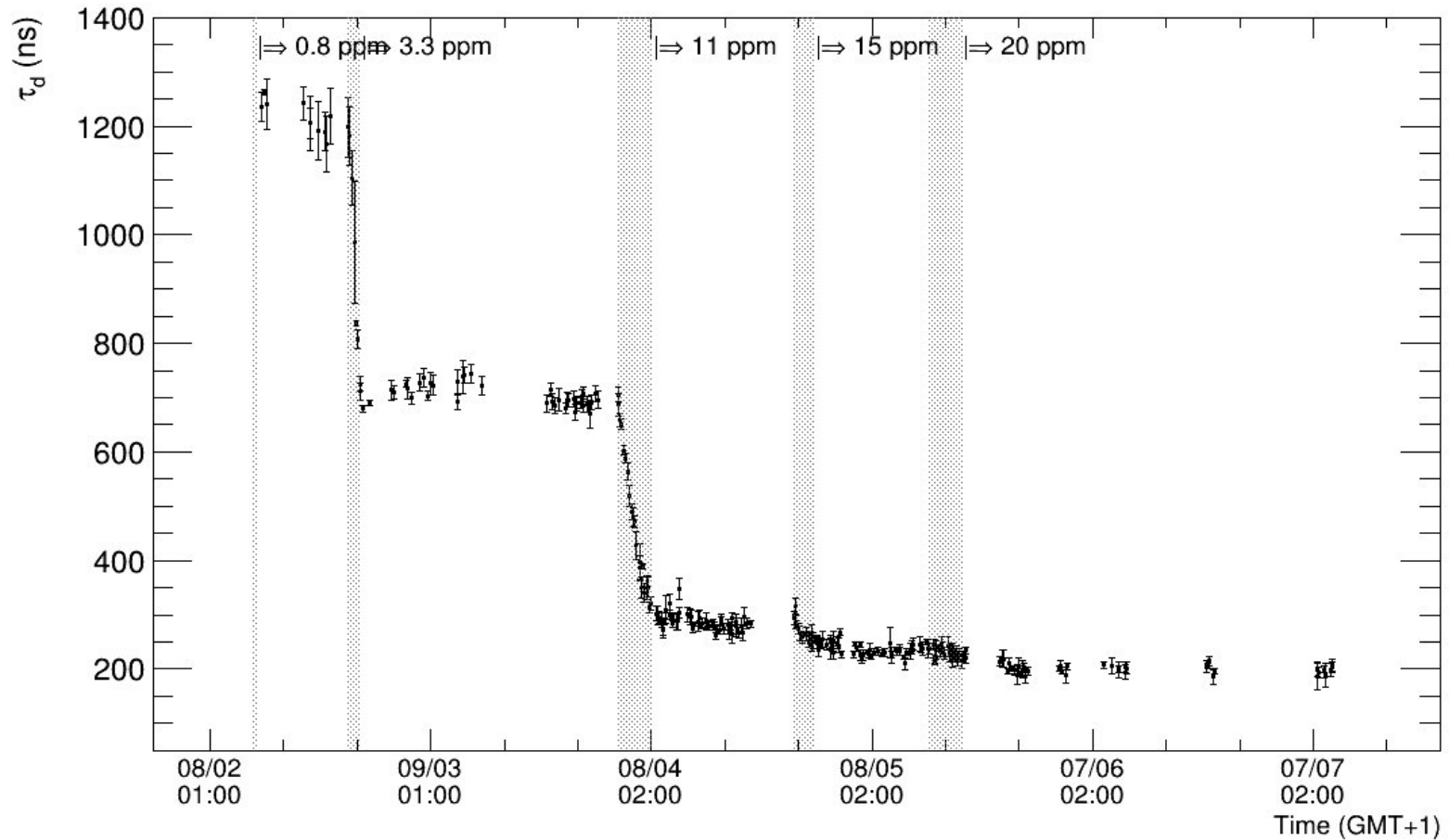
- Slow component from deconvolved waveform

# $\tau_f$ - convolution fit



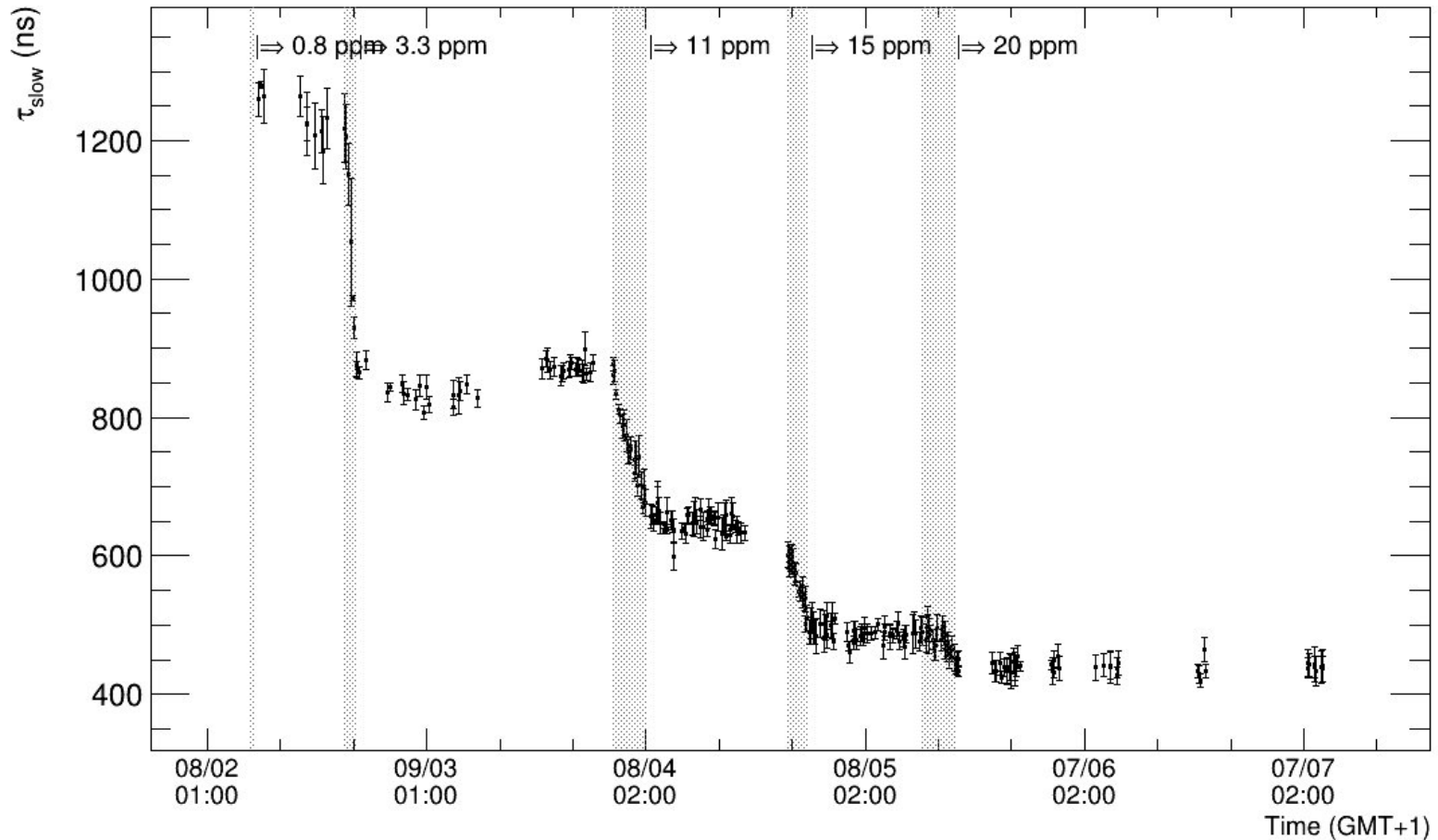
- fast component

# $\tau_d$ - convolution fit



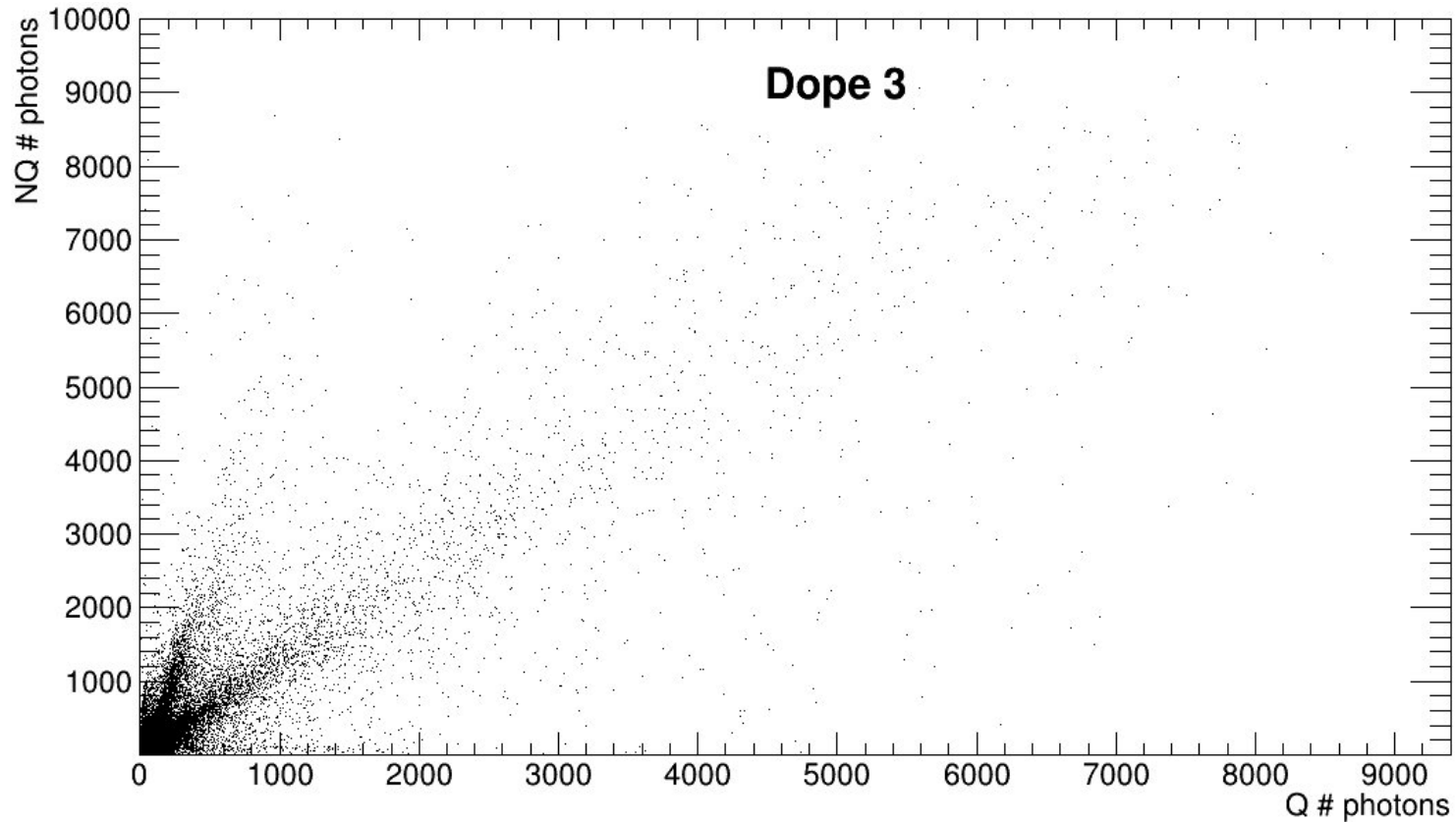
- intermediate component

# $\tau_s$ - convolution fit



- slow component

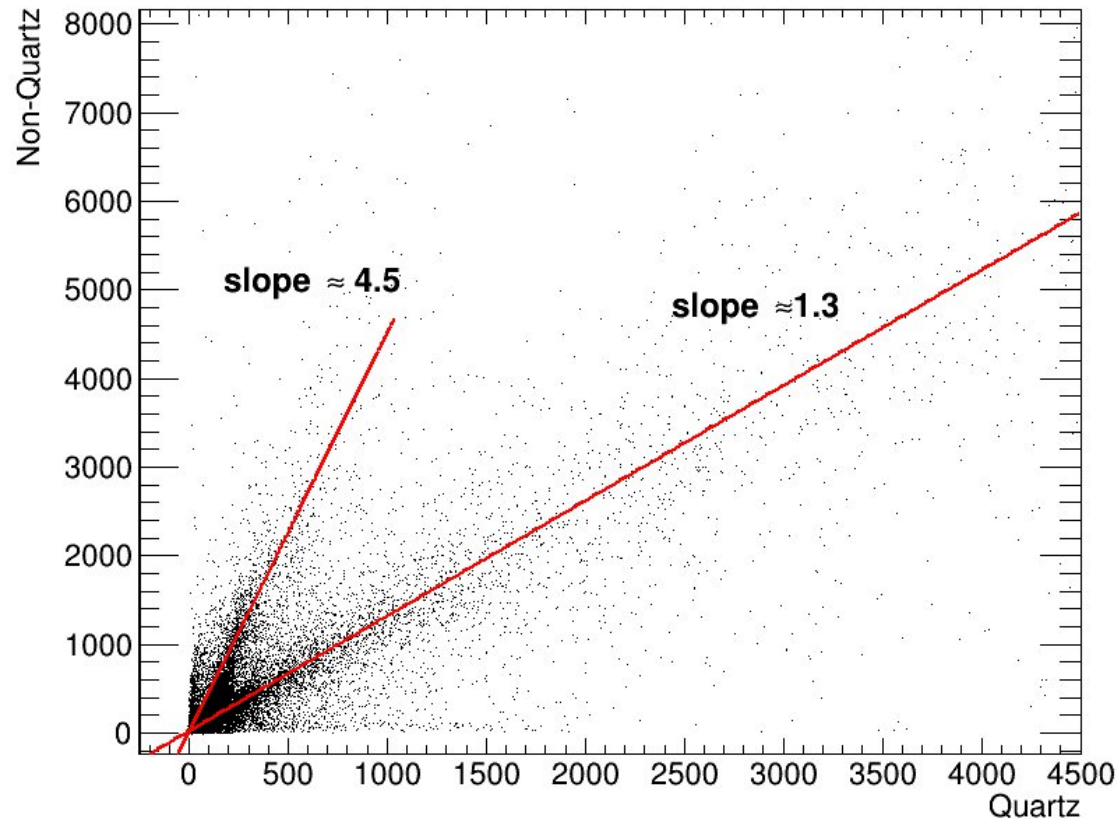
# New effect...



- Scatter-plot of NQ-Arapuca vs Q-Arapuca
- 2 different contributions (lobes)



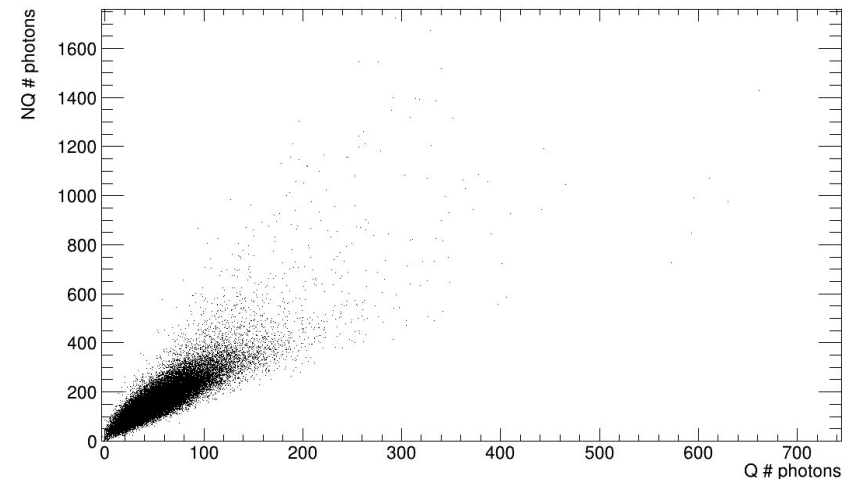
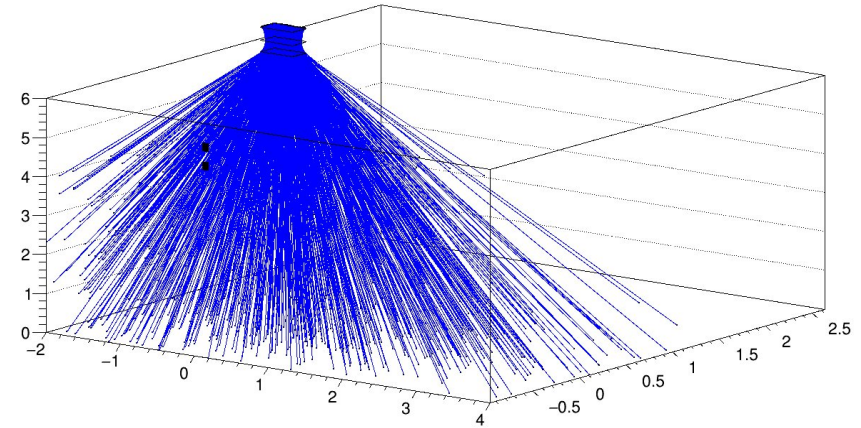
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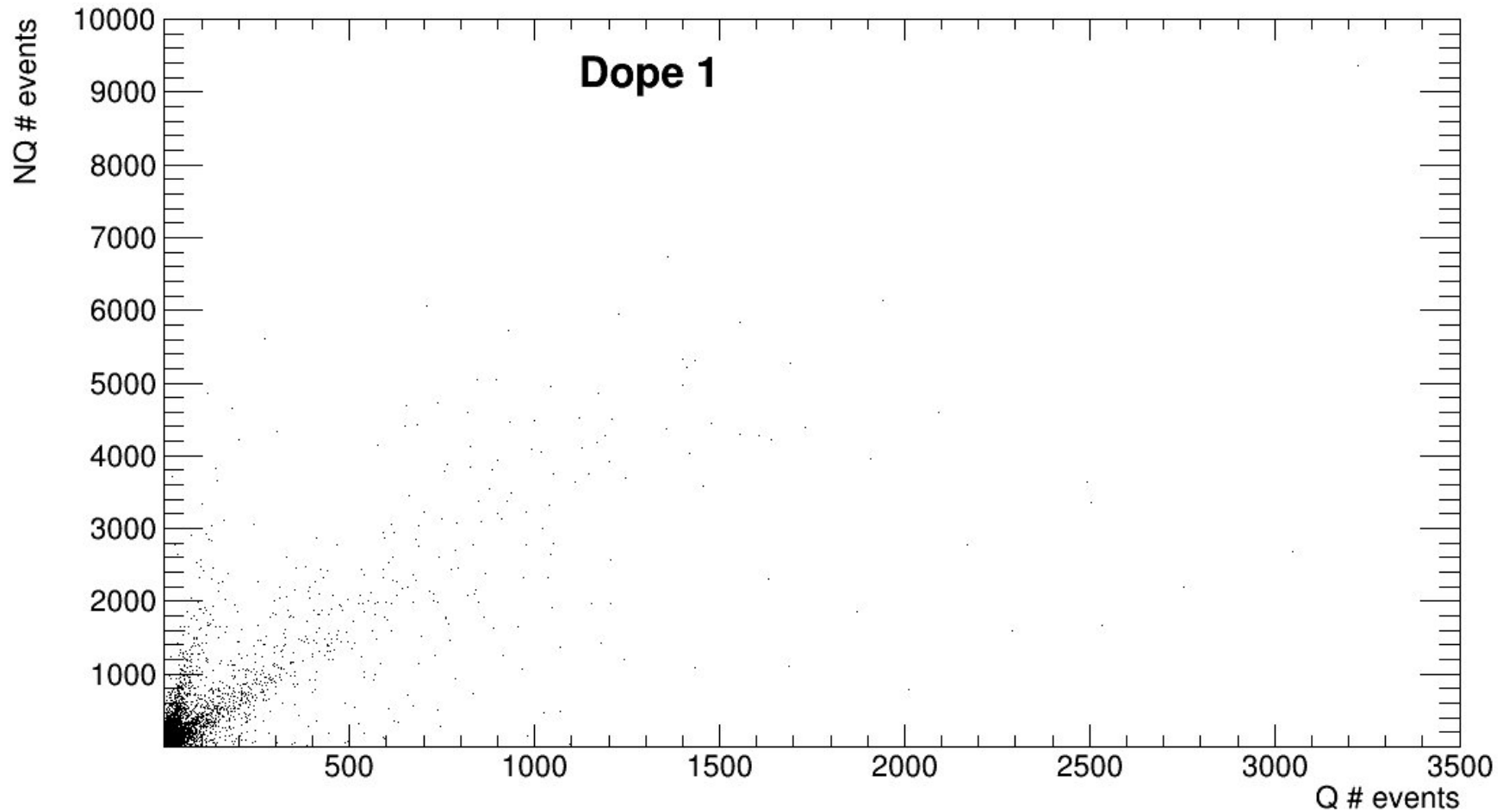
# Possible explanation?

- We implemented a toy montecarlo simulating muons with real energy spectrum and stopping power
- We didn't observe any effect
- The result may be explained by two samples with different solid angles for the 2 X-Arapucas?

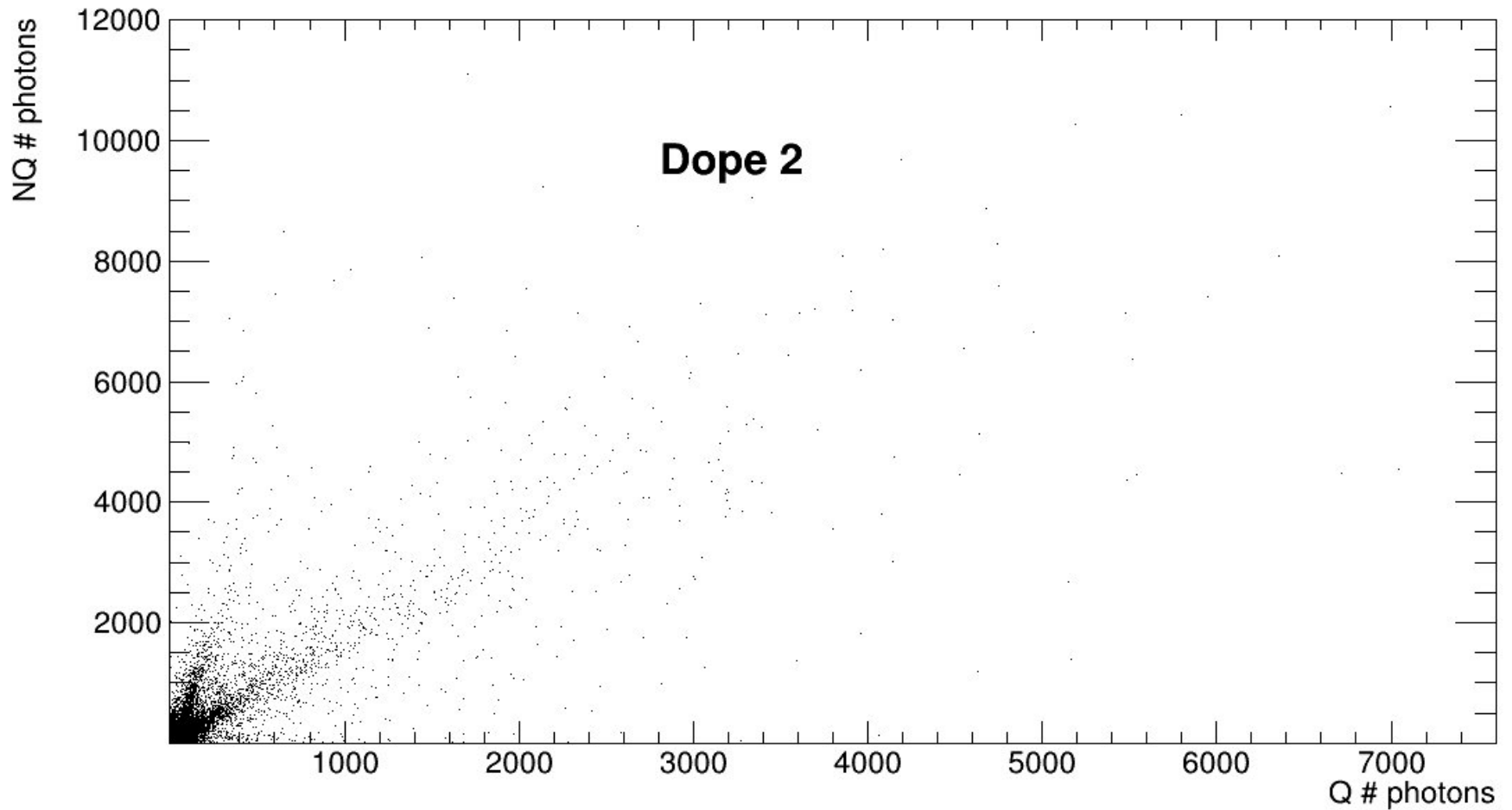


# backup

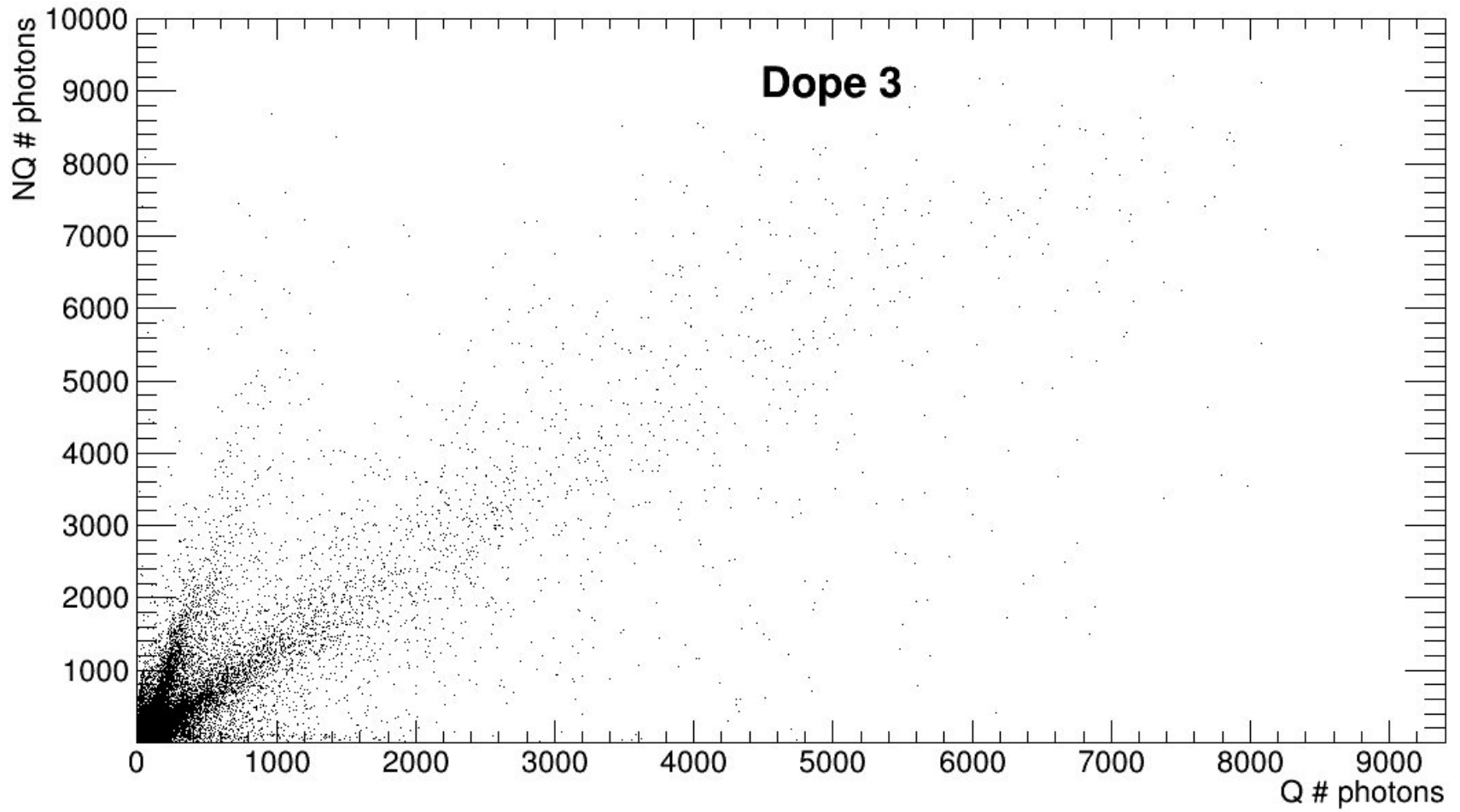
# Doping 1



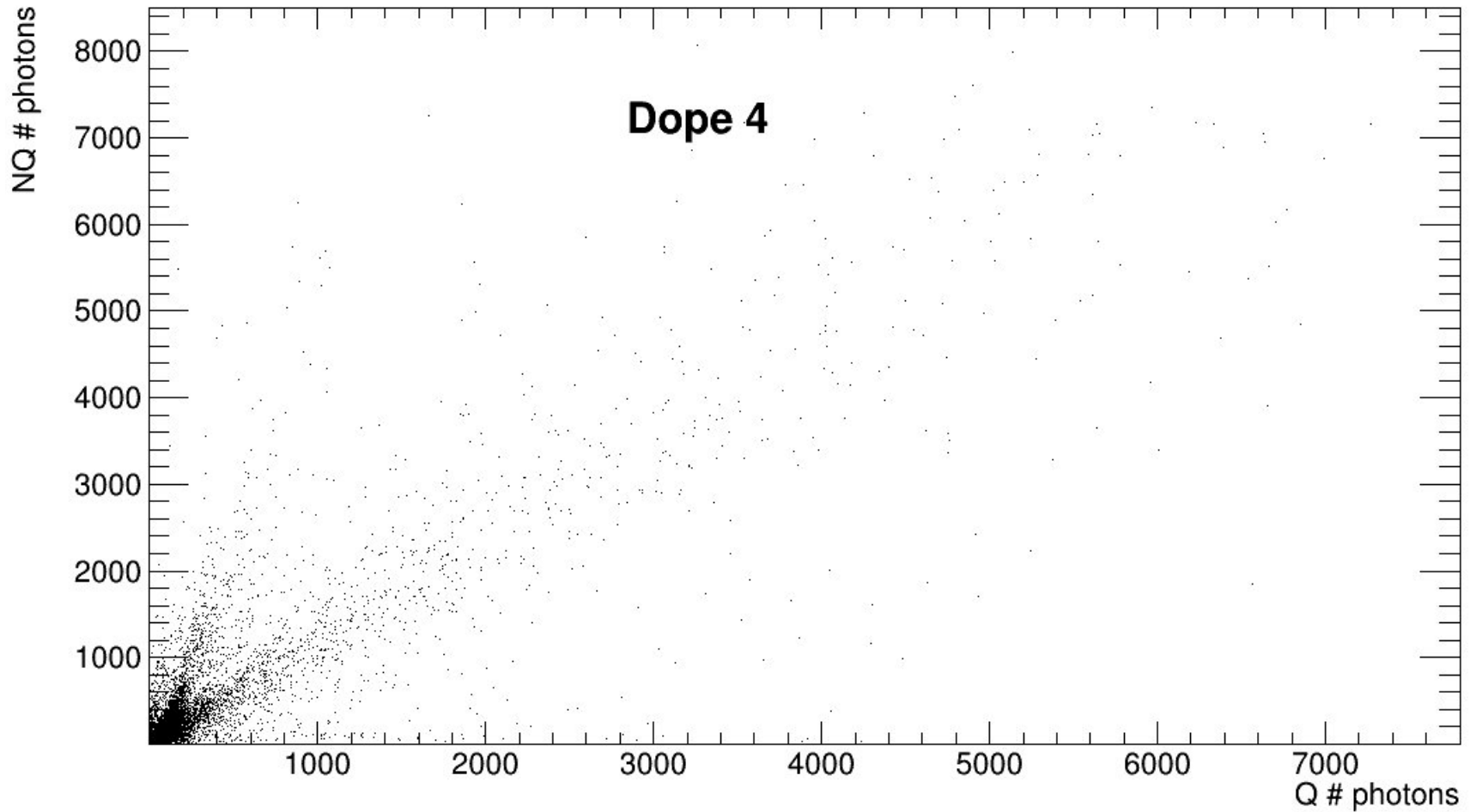
# Doping 2



# Doping 3



# Doping 4



# Doping 5

