



Number of background events

f200_vs_s1npe_fiducial5cm

THIS SLIDE IN THE PREVIOUS HIGH MASS CALL WAS WRONG: STATISTICS NOT TAKEN INTO ACCOUNT PROPERLY

	Maria Adriana	Manuel
#232Th primaries	2.2E8	2.3E8
Pushup prob. Fiducial volume curve (FV)	1.5E-4	1.4E-4 (50<S1<290) 5.0E-4 (full curve)
Pushup prob. Extended volume curve (EV)	?	9.2E-5 (50<S1<290) 3.2E-4 (full curve)
#events ROI EV fiducial 5cm (simulation)	2 (full curve?)	1 (50<S1<290) 3 (full curve)
#entries ROI EV fiducial	11710 (preliminary)	22284
#events expected in 10y from 232Th only	6(10)	4 (50<S1<290) 12 (full curve)

#Expected 232Th primaries in 10y: 8.8E8 (to be checked)

Factor of 4 in statistics needed to match the total exposure. Factor 50 to reduce statistical error (~100 events)!

Also 40K should be considered

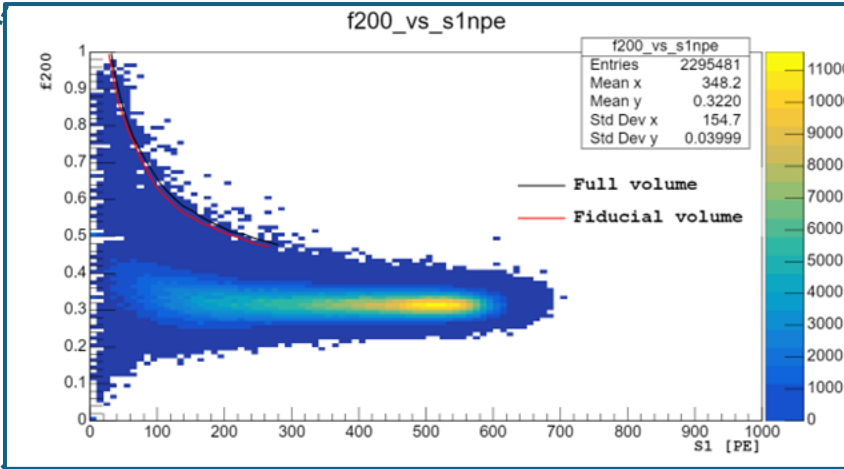
Cherenkov + 39Ar pileup topology to be considered



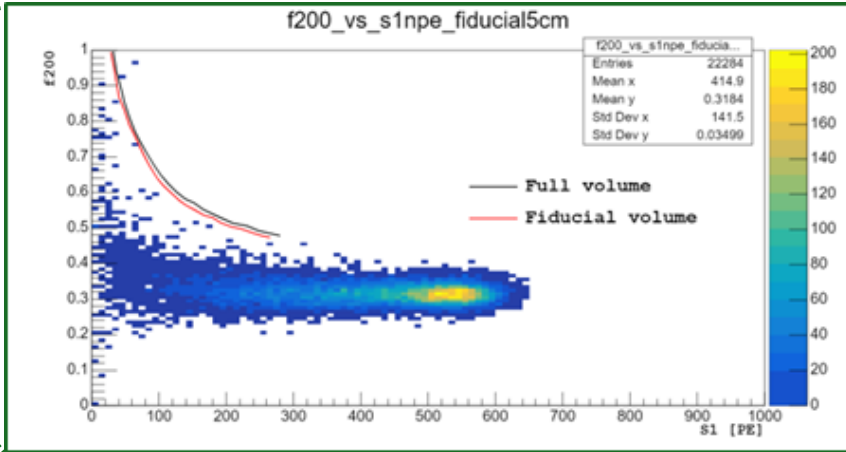
Number of background events

#Primaries = #generated events = steps in 232Th decay chain * #232Th decays = 10 * #232Th decays
#Expected 232Th primaries in 10y = **8.8E9** (to be updated)

	Maria Adriana	Manuel
#232Th primaries	2.2E8	9.7E8 (11% exposure)
Pushup prob. Fiducial volume curve (FV)	1.5E-4	1.4E-4 (50<S1<290) 5.0E-4 (full curve)
Pushup prob. Extended volume curve (EV)	?	9.2E-5 (50<S1<290) 3.2E-4 (full curve)
#events ROI EV fiducial 5cm (simulation)	2 (full curve?)	1 (50<S1<290) 3 (full curve)
#entries ROI EV fiducial	11710 (preliminary)	22284
#events expected in 10y from 232Th only	o(10)	~ 9 (50<S1<290) ~ 27 (full curve)



No fiducialization applied



Fiducialization on cluster coordinates (5cm from the walls)

Factor **10** in statistics needed to match the total exposure and 50 to reduce statistical error (~100 events)!

g4ds10 data