Analysis daily

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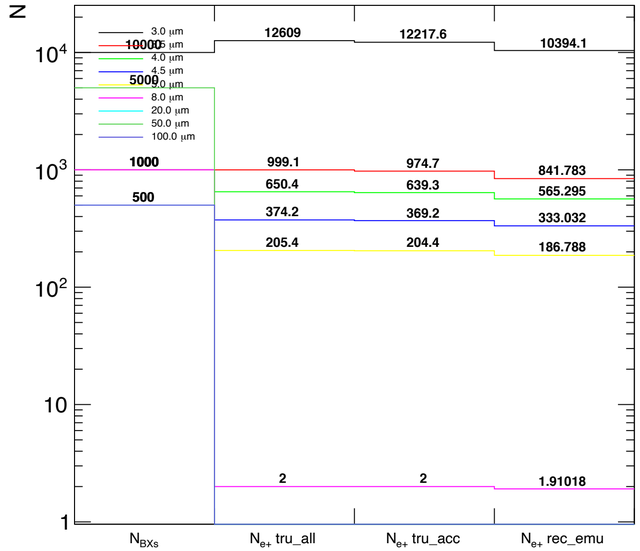
Recap

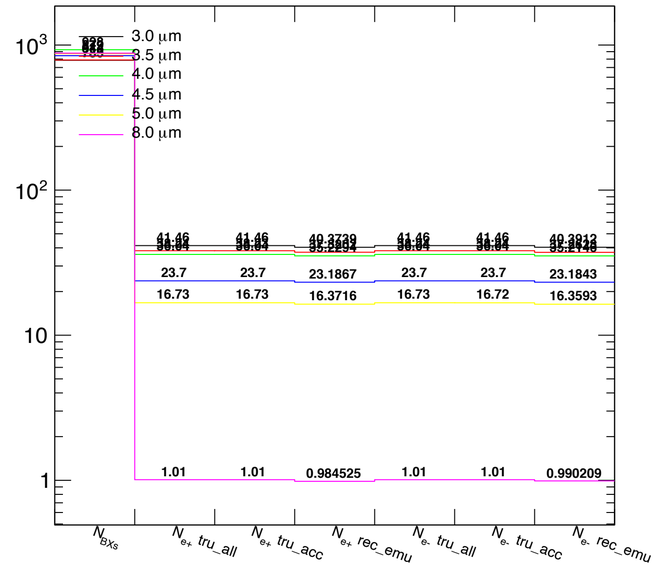
- Mismatches in number of positrons between the CDR and LOI almost completely understood
  - changes geometry of setup, bunch charge
  - changes in pulse shape definitions

- There's still a problem we're trying to understand wrt the weights in the signal files.
  - if we take the weights into account for JETI40/g_laser/3um we get ~0.05 positrons per BX
    - without the weights we get we get ~5 positrons per BX (i.e. the weight is uniform at 0.01)
  - these weights are set by-hand so that there are some positrons created per BX rather than none
    - not sure what's the physical meaning of these weights and which number is the correct one

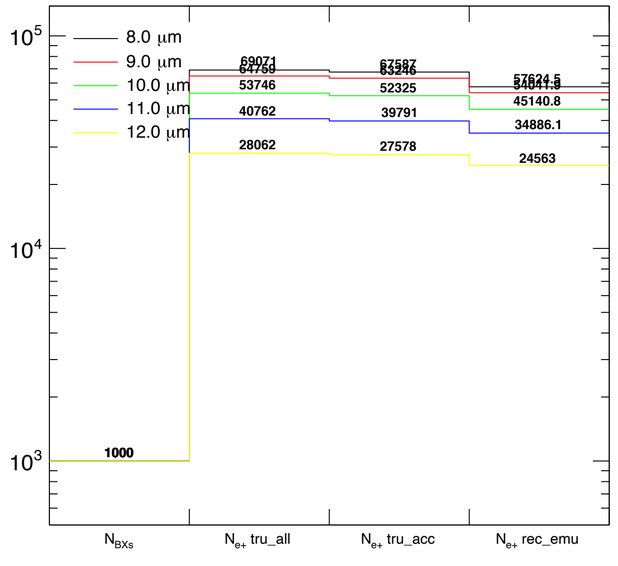
JETI40_e_laser_16.5GeV



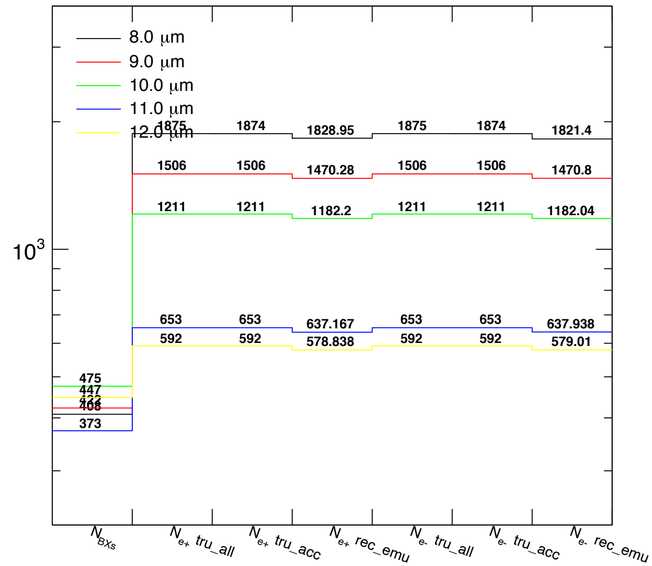
JETI40_g_laser_16.5GeV



phaseII_e_laser_16.5GeV



phaseII_g_laser_16.5GeV



Experiment Config	$w_0 = 3\mu$m	$w_0 = 3.5\mu$m	$w = 0, 4.0\mu$m	$w_0 = 4.5\mu$m	$w_0 = 5.0\mu$m	$w_0 = 8.0\mu$m	$w_0 = 20.0\mu$m	$w_0 = 50.0\mu$m	$w_0 = 100.0\mu$m
peak SQED ξ	5.12	4.44	3.88	3.45	3.1	1.94	0.78	0.31	0.15
peak SQED χ (16.5 GeV)	0.9	0.79	0.69	0.61	0.55	0.34	0.138	0.055	0.028
JETI40 e-laser 16.5 GeV	10000	1000	1000	1000	1000	1000	500	5000	500
JETI40 e-laser 17.5 GeV	1000	1000	1000	1000	1000	1000			
JETI40 g-laser (coarse) 16.5 GeV	1000	1000	999	1000	1000	1000			
JETI40 g-laser 16.5 GeV	785	789	928	844	872	879			
JETI40 g-laser 17.5 GeV									
JETI40 misalignments									
JETI40 mCP production									

	$w_0 = 3.0\mu$m	$w_0 = 8.0\mu$m	$w_0 = 9.0\mu$m	$w_0 = 10.0\mu$m	$w_0 = 11.0\mu$m	$w_0 = 12.0\mu$m			
peak SQED ξ	16.7	6.27	5.57	5.01	4.56	4.18			
peak SQED χ (16.5 GeV)	2.96	1.11	0.99	0.89	0.81	0.74			
phaseII e-laser 16.5 GeV		1000	1000	1000	1000	1000			
phaseII e-laser 17.5 GeV		1000	1000	1000	1000	1000			
phaseII g-laser 16.5 GeV		408	422	475	373	447			
phaseII g-laser 17.5 GeV									
phaseII misalignments									
phaseII mCP production									