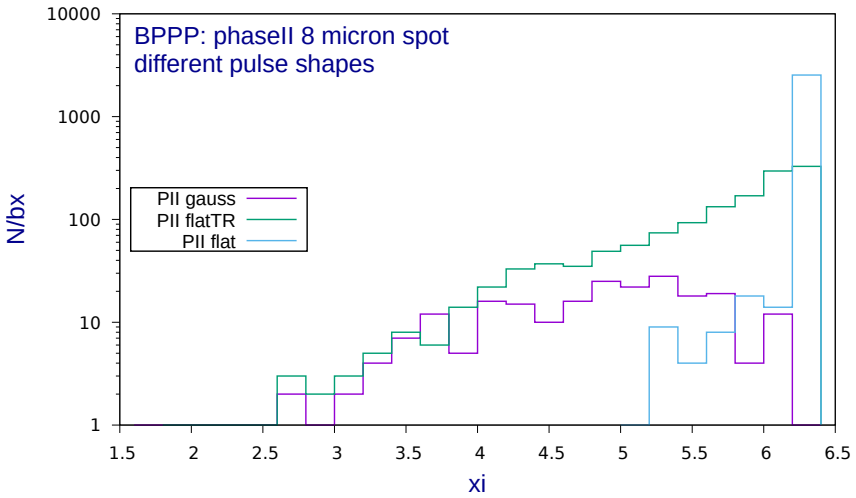
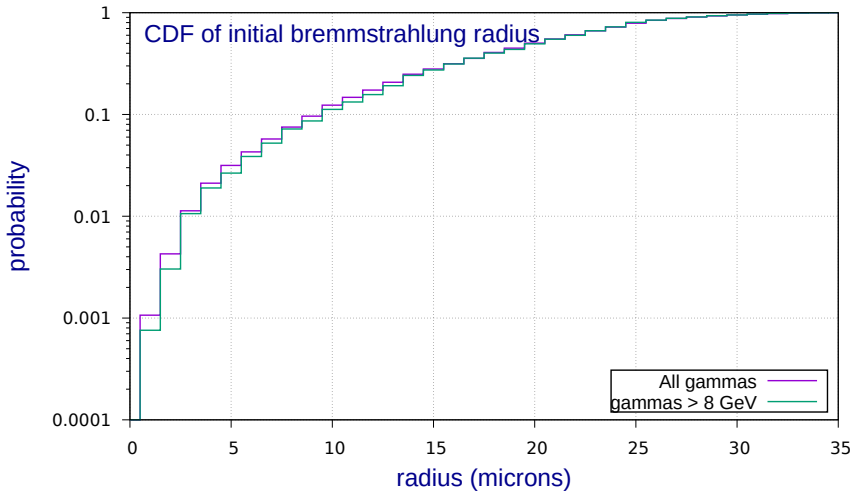
Some analysis





- Positron production with local xi value
- eg: BPPP phase II, 8 micron spot
- local xi distribution varies with pulse shape
- life would be easier with a flat laser pulse
- Initial bremmstrahlung file, radial distribution
- distribution same for $>$8 GeV as for all energies
- Tem times as many gammas for 10 micron spot as for 3 micron spot

IPstrong v1.1.00 data sets, update 15/10/2020

- New ”intermediate” spot size (6.5μm). Increased statistics.
- Pulse shape, ”gauss”=3D gauss, flatTR=1D gauss (longitudinal)
- ICS experiment configuration added. Input gamma file from D. Seipt

Aug-Oct 2020 Data Runs, bunch/pulse crossings completed

Experiment Config	$w_0 = 3\mu$m	3.5μm	4.0μm	4.5μm	5.0μm	6.5μm	8.0μm	10.0μm	13.0μm	15.0μm	20.0μm	50.0μm	100.0μm
peak SQED ξ	5.12	4.44	3.88	3.45	3.1		1.94	1.553	1.195	1.04	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	6000	5994	6000	6000		10000	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		9879						
JETI40 g-laser 17.5 GeV													
JETI40 ics-laser 16.5 GeV													
JETI40 ics-laser 17.5 GeV													
JETI40 misalignments													
	pulse shape	$w_0 = 3.0\mu$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	gauss	16.7	6.27	5.57	5.01	4.56	4.18						
peak SQED χ (16.5 GeV)	gauss	2.96	1.11	0.99	0.89	0.81	0.74						
phaseII e-laser 16.5 GeV	gauss		1000	1000	1000	1000	1000						
phaseII e-laser 17.5 GeV	gauss		1000	1000	1000	1000	1000						
phaseII g-laser 16.5 GeV	gauss		9101	1922	1975	1873	1947						
phaseII g-laser 16.5 GeV	flatTR		2285	2000	2000	2000	2000						
phaseII g-laser 17.5 GeV													
phaseII ics-laser 16.5 GeV			1000										
phaseII ics-laser 17.5 GeV													
phaseII misalignments													

/afs/desy.de/user/h/hartin/public/IPstrong_V1.1.00