

WEIZMANN INSTITUTE OF SCIENCE

## Analysis daily

## Noam Tal Hod



Oct 20 2020

## Recap

- Photon+laser signal investigation
  - \* Problems found with lack of randomness in the input Bremss file.
  - Counted how many Bremss photons from the input file are above 8 GeV and within a 3 micron radius of the beam axis These will be the ones most likely to produce a pair and there are only about 10 such photons.

  - These photons have fixed positions and they proceed along the same path time and time again, until they produce a pair.
  - So, it doesn't really matter how much output statistics we produce if the input file is the same each time... Sasha has produced 710 files and now Tony is randomising the input, so that a different file is chosen each time the MC runs 貒
    - \* It might be better if the list was some 1000s long
  - - IPstrong V1.1.00/JETI40/g laser/16.5GeV/w0 \*nm
    - IPstrong\_V1.1.00/phaseII/g laser/16.5GeV/w0 \*nm
- Photon+laser background-only generation:
  - see <u>spreadsheet</u> collecting the production progress
  - $\ll$  combined, we are at ~5E9 events produced for the setup v

	А	В	С	D	E	F	G	Н	I	J	К	
1								total	4.9			
2	name	cluster	campaign	E-beam	date	Njobs	events per job	failures [%]	available [*10^9]	location(s)	Comment	
3	Louis	Grid	lxb18e	16.5	10/10/2020	12000	250000	0	3	Grid space and dust-luxe	As of 19/10 99.0% of the prod ready	
4	Arka	Grid	lxb18e	16.5	13/10/2020	6000	250000	0	1.5	Grid space	As of 19/10 99% of the grid jobs done.	
5	Arka	Weizmann cluster	lxb18e	16.5	12/10/2020	1000	100000	0.3	0.0997	Weizmann Storage		
6	Maryna	dust-ilc	lxb18e	16.5	10/10/2020	2400	100000	20	0.19	dust-ilc	cmfs problems at bird852.desy.de	
7	Rajendra	dust-ilc	lxb18e	16.5	16/10/2020	8000	100000	0		dust		
8	John	UCL	lxb18e	16.5	16/10/2020	1000	100000	0	0.1	UCL	Batch management at UCL has been s	low

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\* The g-laser data for both JETI40 and phaseII have been replaced, with randomised input Bremss file, each with at least 2k BXs

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