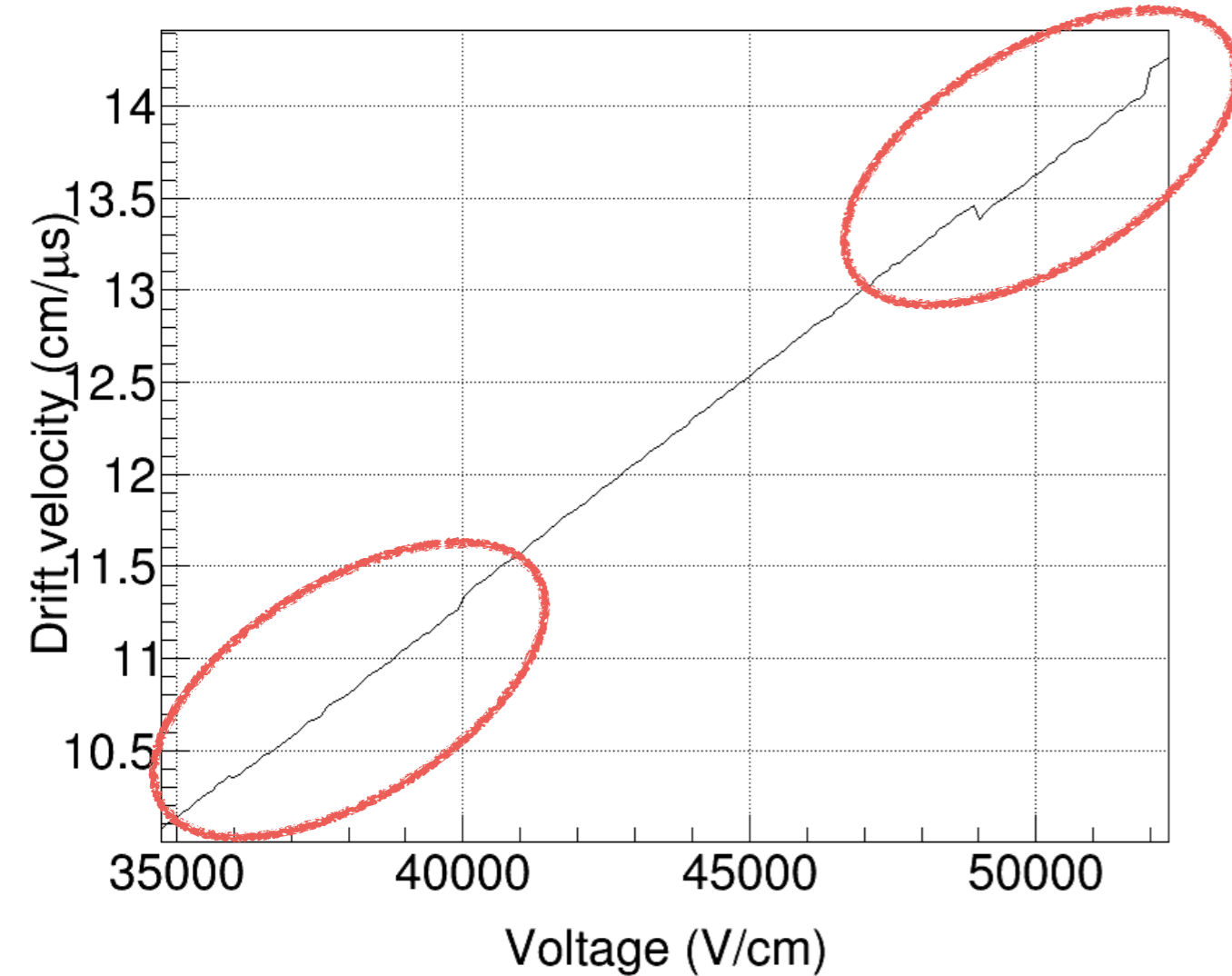


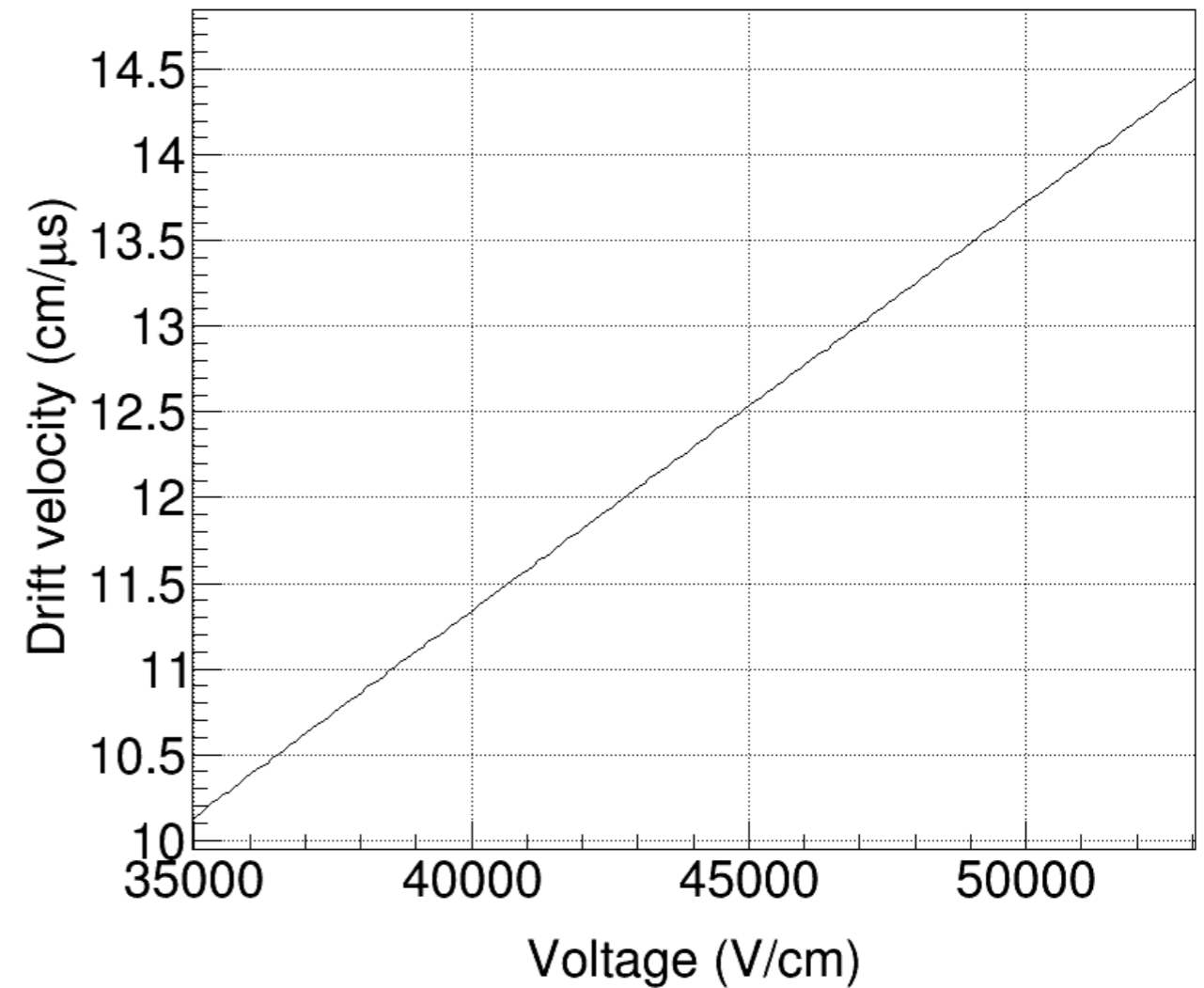
Status report

P10 (Ar 90% + CH₄ 10%) @ 20°C, 1 atm



Previous

P10 (Ar 90% + CH₄ 10%) @ 20°C, 1 atm



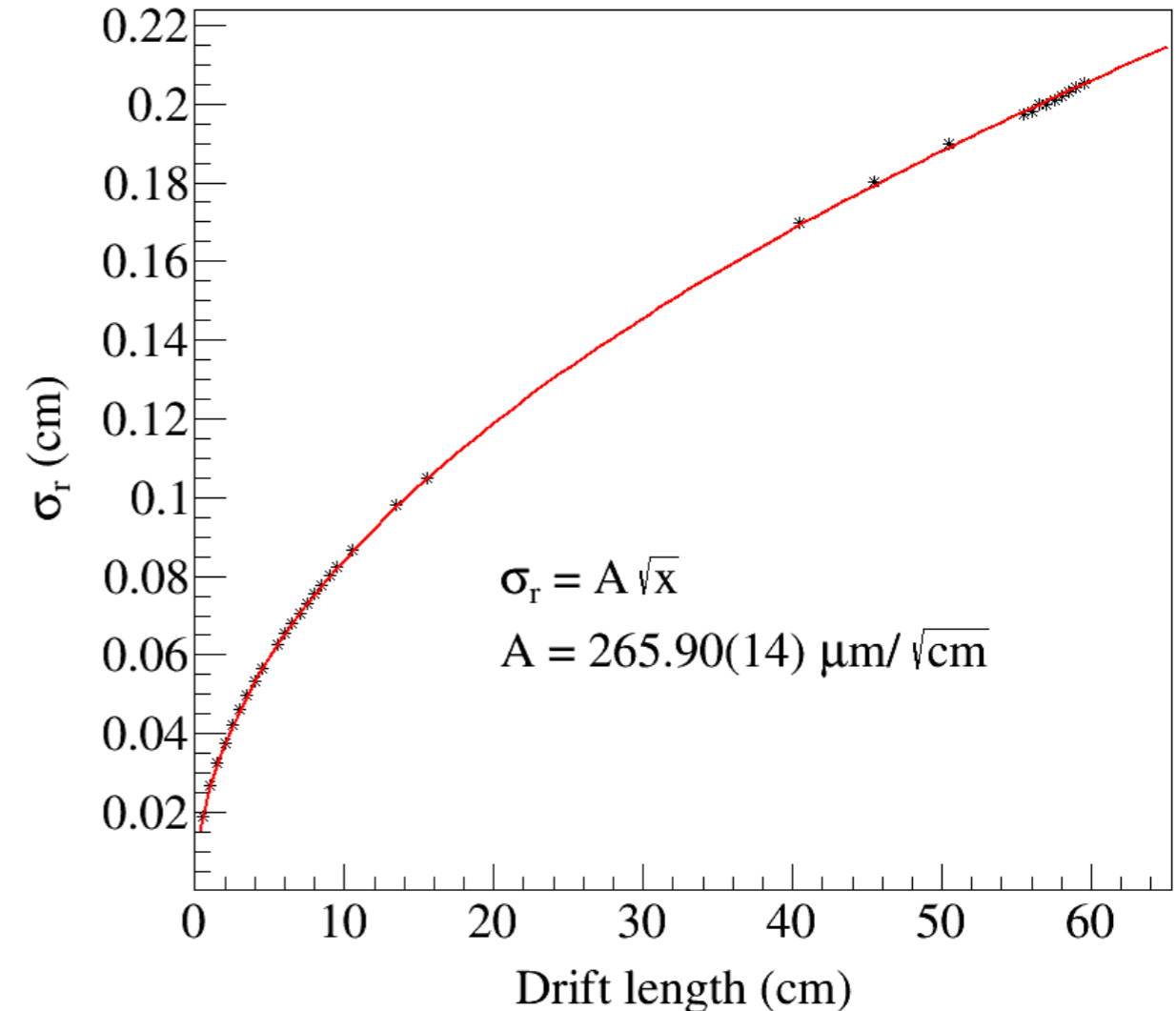
New

- Problem solved but I don't know the reason.
- Result slightly depends on how many points are calculated in one run.

Status report

```
-----  
CALCULATED MAX. COLLISION TIME = 343.25 PICOSECONDS.  
NUMBER OF NULL COLLISIONS = 931910510  
NUMBER OF REAL COLLISIONS = 200000000  
Z DRIFT VELOCITY = 0.5544E+02 MICRONS/NANOSECOND +- 0.06%  
Y DRIFT VELOCITY = 0.0000E+00 MICRONS/NANOSECOND +- 0.00%  
X DRIFT VELOCITY = 0.0000E+00 MICRONS/NANOSECOND +- 0.00%  
  
DIFFUSION IN CM**2/SEC.  
TRANSVERSE DIFFUSION = 0.1187D+04 +- 11.91%  
= 0.0257 EV. +- 11.91%  
= 206.910 MICRONS/CENTIMETER**0.5 +- 5.96%  
LONGITUDINAL DIFFUSION = 0.3836D+04 +- 10.2%  
= 0.0830 EV. +- 10.20%  
= 372.027 MICRONS/CENTIMETER**0.5 +- 5.10%  
  
IONISATION RATE /CM.= 0.0000E+00 +/- 0.00 PERCENT.  
ATTACHMENT RATE /CM.= 0.0000E+00 +/- 0.00 PERCENT.  
  
MEAN ELECTRON ENERGY = 0.2752 EV. ERROR = +- 0.11%  
-----
```

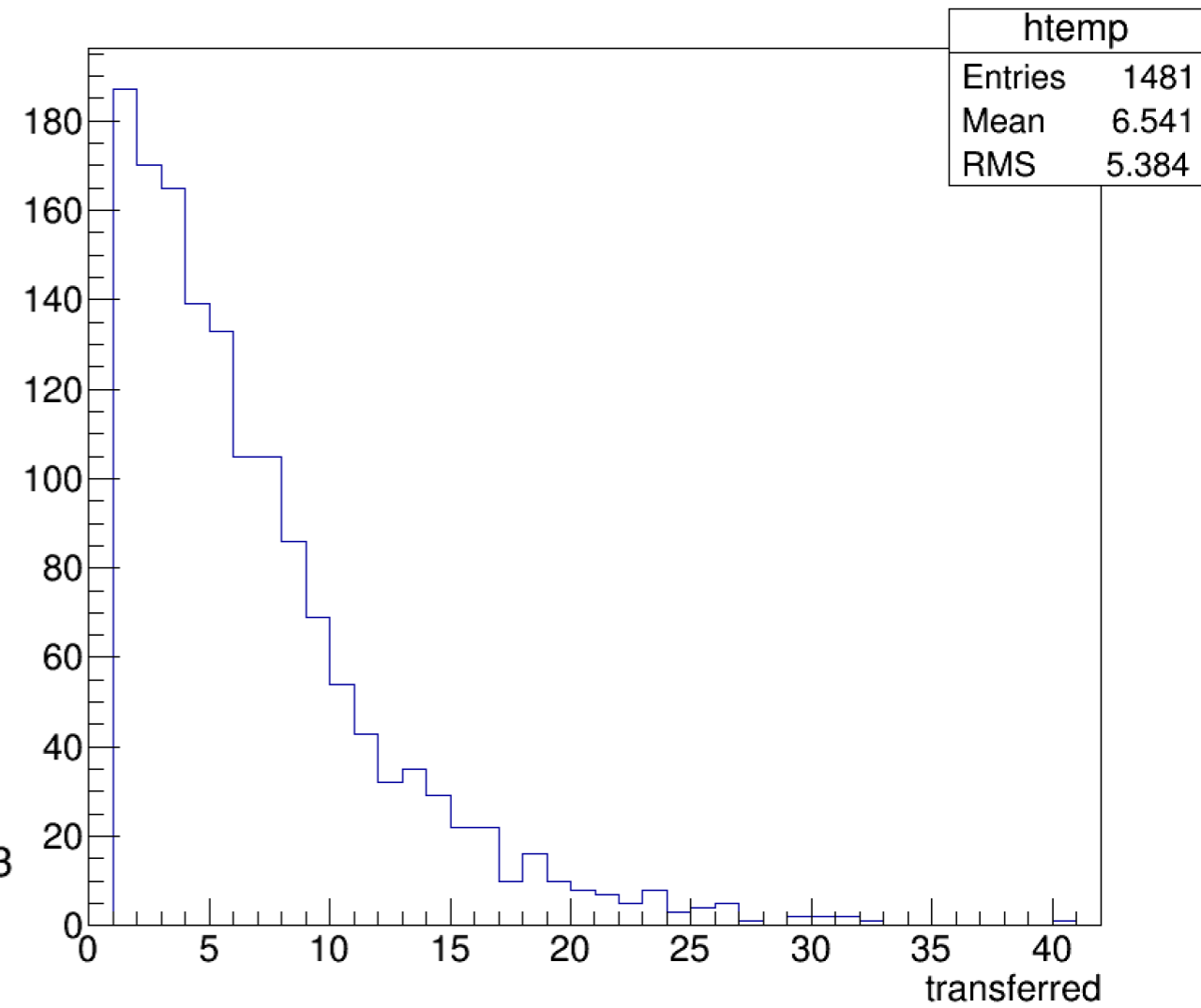
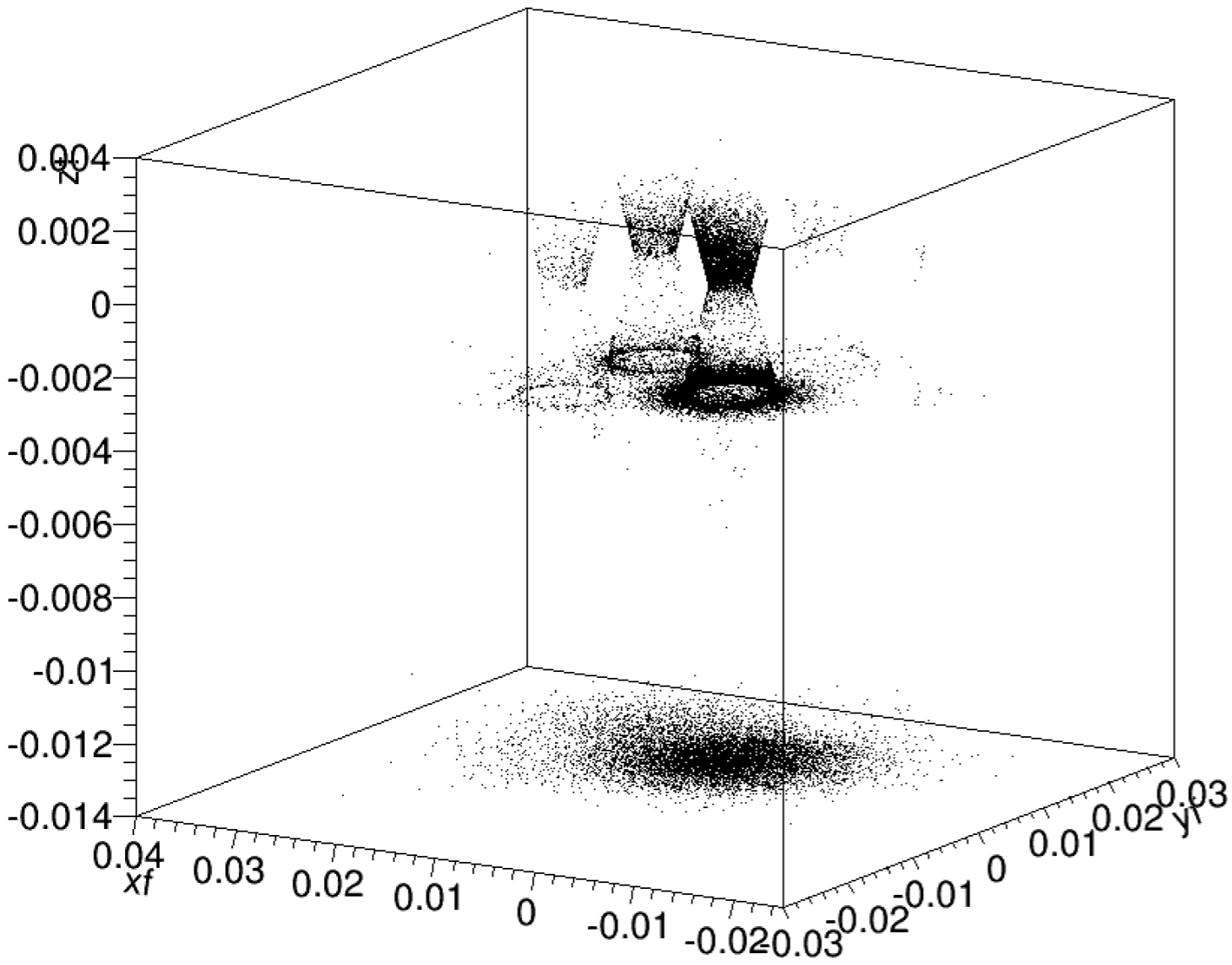
MAGBOLTZ2 log file



Obtained from GARFIELD++ calculation

- Transverse diffusion coefficient by GARFIELD++ calculation is slightly different from MAGBOLTZ2 calculation result.
- GARFIELD++ seems to add more parameter to the values from MAGBOLTZ2 in its calculation of drifting.

Status report



Gain plot

Calculation Status

0.5	1000000	995000	1	1000000	995000	1.5	1000000	995000	2	1000000	995000
2.5	1000000	995000	3	1000000	995000	3.5	1000000	995000	4	1000000	995000
4.5	1000000	995000	5	1000000	995000	5.5	1000000	995000	6	1000000	995000
6.5	1000000	995000	7	1000000	995000	7.5	1000000	995000	8	1000000	995000
8.5	1000000	995000	9	1000000	995000	9.5	1000000	995000	10	1000000	535000
10.5	1000000	995000	11	1000000	485000	11.5	1000000	465000	12	1000000	445000
12.5	1000000	320000	13	1000000	410000	13.5	1000000	995000	14	1000000	770000
14.5	500000	35000	15	500000	0	15.5	1000000	995000	16	1000000	195000
17	1000000	135000	18	1000000	175000	19	1000000	165000	20	1000000	155000
20.5	1000000	785000	25.5	1000000	630000	30.5	1000000	525000	35.5	1000000	450000
40.5	1000000	995000	41	1000000	130000	45.5	1000000	995000	46	1000000	675000
50.5	1000000	995000	51	1000000	310000	51.5	1000000	305000	52	1000000	285000
52.5	1000000	285000	53	1000000	280000	53.5	1000000	280000	54	1000000	270000
54.5	1000000	270000	55	1000000	275000	55.5	100000	95000	56	100000	95000
56.5	100000	95000	57	100000	95000	57.5	100000	95000	58	100000	95000
58.5	100000	95000	59	100000	95000	59.5	100000	95000	60	100000	70000

First	30000	20093	First	20000	10092	First	10000	97	Total events	2820
Rest	20000	10127	Rest	30000	20139	Rest	10000	133	Total events	3990

Core 0 81.0°C Core 1 80.0°C Core 2 74.0°C Core 3 80.0°C