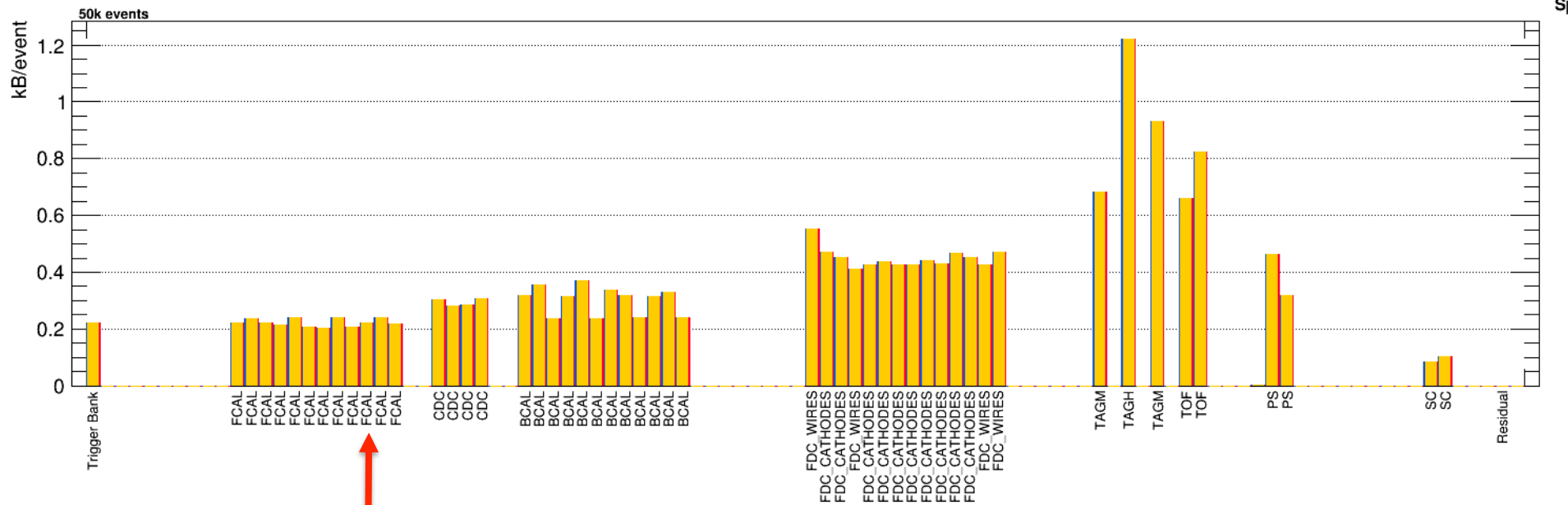
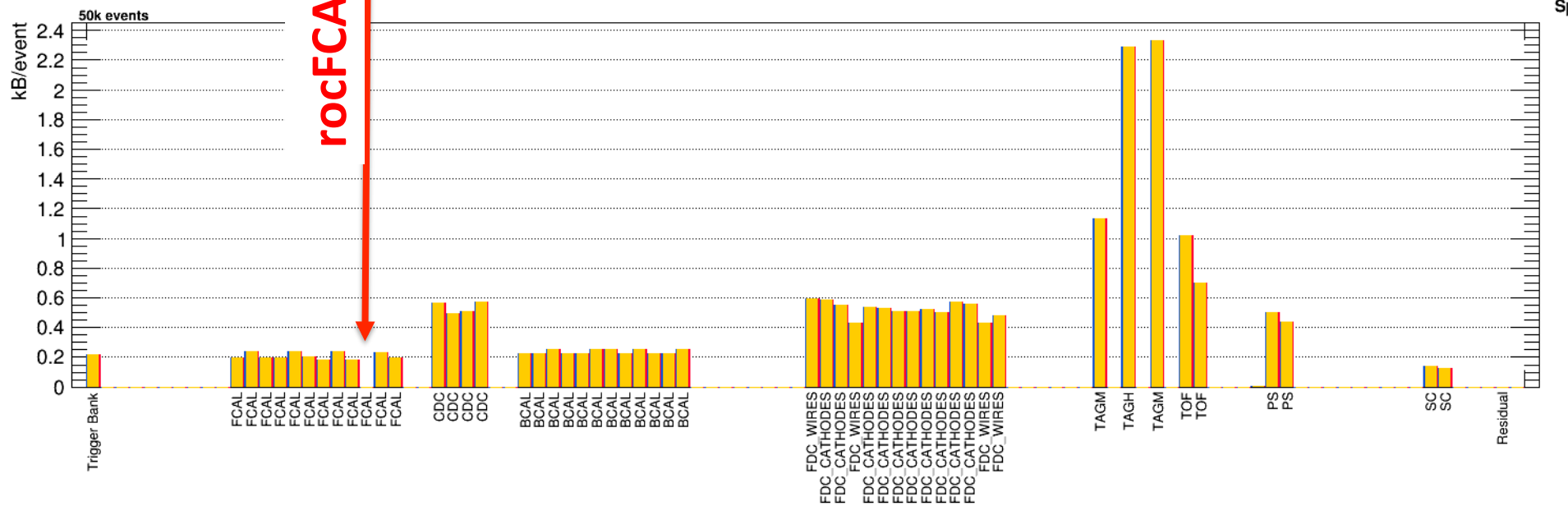


kB per event by VME crate for run 11511



kB per event by VME crate for run 22062



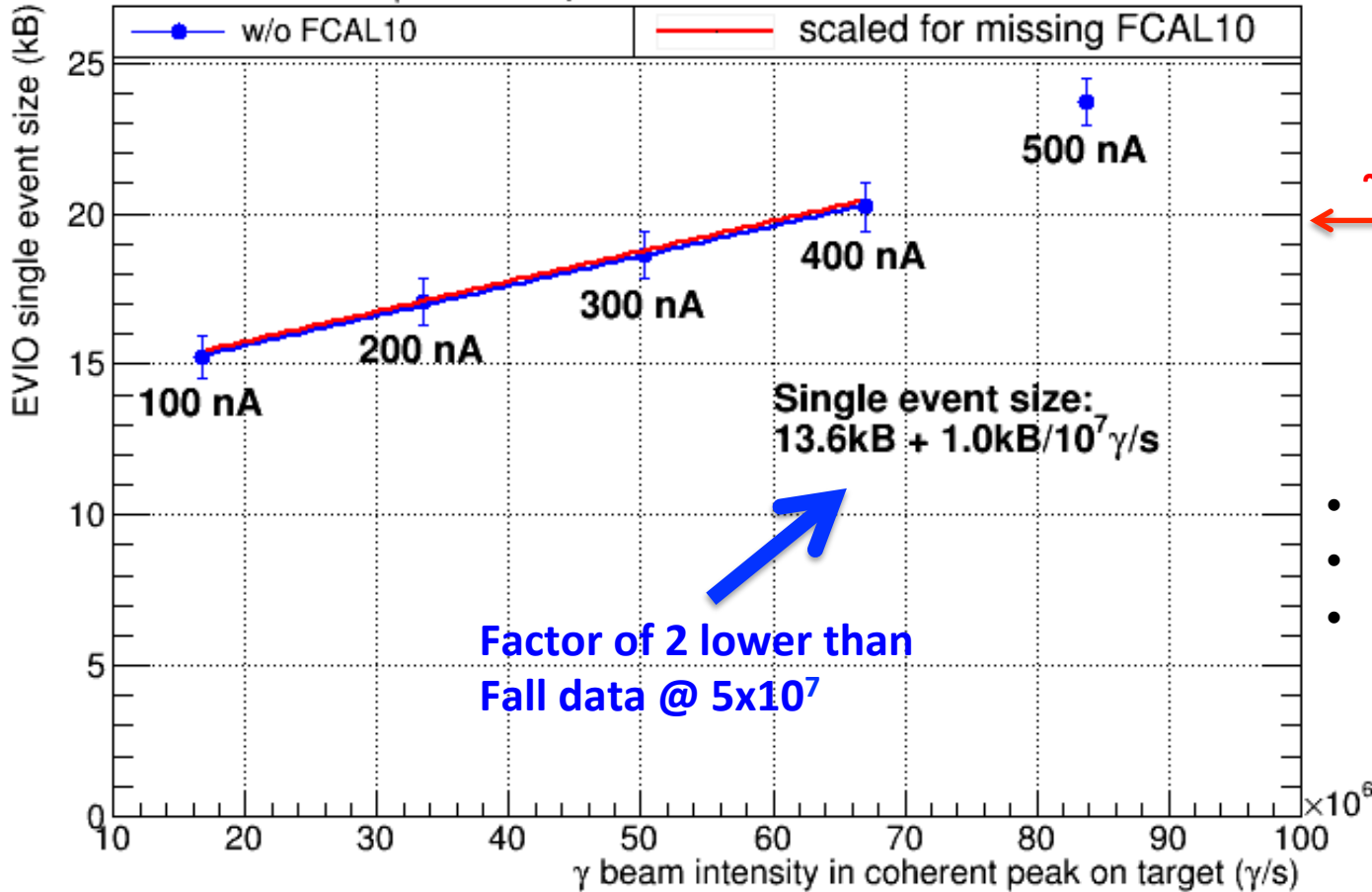
rocFCAL10

Preliminary

EVIO buffer size (raw data)

January 11, 2017 DL
git revision #28a2b26
runs 22062-22068

"58" μm JD70-100, 5mm coll.



$\sim 1\text{GB/s}$ @ 50kHz

*factor of 2 off
from projection!*

- Tighter timing windows
- Lower CDC voltages
- Much of hodoscope off

hd_rawdata_021943_000.evio

```
gluon48:~>cd /gluonraid3/data3/rawdata/volatile/RunPeriod-2016-10/rawdata/Run021943
gluon48:Run021943>hexdump hd_rawdata_021943_000.evio | head -n 20
00000000 e993 f086 bc9b 9832 5b00 a7b8 c08b 9200
00000010 c0fb 0000 c0fb 0000 0584 28c6 2c94 c9d6
00000020 cd9a cda6 5b00 76b8 2694 cae6 cd9b 6eba
00000030 5b00 76b8 2394 cb16 cd9b 31be 5b00 76b8
00000040 0694 ccd6 cd9c 6dc0 5b00 76b8 1494 cdf6
00000050 cd9c 4fcd 5b00 76b8 2794 ce16 cd9d 71d6
00000060 5b00 76b8 2894 cf06 cd9e 80ea 5b00 76b8
00000070 1494 d0a6 cd9f 4af1 5b00 76b8 40c8 8101
00000080 6340 01e0 a000 0300 1894 d196 cd9f 89f5
00000090 5b00 76b8 1094 d236 cd9f 03fd 5b00 76b8
000000a0 0d94 d326 ce98 d200 5b00 76b8 0994 d5c6
000000b0 ce99 9c14 5b00 76b8 0994 d5c6 ce99 9c14
000000c0 5b00 76b8 2a94 d666 ce99 a61a 5b00 76b8
000000d0 3c94 d7a6 ce9a ca2f 5b00 76b8 0494 d816
000000e0 ce9c 4148 5b00 76b8 1494 d966 ce9c 464d
000000f0 5b00 76b8 1294 da06 ce9e 2061 5b00 76b8
00001000 3c94 dc76 ce9f c77f 5b00 76b8 3c94 dc76
00001100 ce9f c77f 5b00 76b8 0d94 dd06 ce99 d098
00001200 5b00 76b8 1794 de76 ce9a 77a5 5b00 76b8
00001300 0594 dfe6 ce9b 5eb0 5b00 76b8 3094 e096
```

gluonraid3

- File sizes are same
- Timestamps about 1.5 hours apart from Dec. 16 (expected)

```
[ifarm1101:~> cd /cache/halld/RunPeriod-2016-10/rawdata/Run021943
[ifarm1101:Run021943> hexdump hd_rawdata_021943_000.evio | head -n 20
00000000 0000 0d00 0000 0100 0000 0800 0000 0100
00000010 0000 0000 0000 0400 0000 0000 dac0 0001
00000020 0000 0400 d1ff 0001 5358 5e82 0000 b755
00000030 0000 0100 0e00 13c2 0000 0200 0000 0800
00000040 0000 0e00 0000 0000 0000 0400 0000 0000
00000050 dac0 0001 0000 0400 d2ff 0001 5358 c484
00000060 0000 0000 0000 0000 0100 676d 70ff 1410
00000070 0000 de08 23ff 3520 0a00 2c00 0000 0000
00000080 0000 0100 0000 2300 34c9 ca98 0000 2300
00000090 34c9 f6eb 0000 2300 35c9 bb6d 0000 2300
000000a0 35c9 c67b 0000 2300 35c9 fbe5 0000 2300
000000b0 36c9 4510 0000 2300 36c9 372e 0000 2300
000000c0 36c9 0c67 0000 2300 36c9 996e 0000 2300
000000d0 36c9 b3d2 0000 2300 36c9 9ed9 0000 2300
000000e0 37c9 8a42 0000 2300 37c9 8b59 0000 2300
000000f0 39c9 f129 0000 2300 39c9 6a46 0000 2300
00001000 3ac9 1f83 0000 2300 3ac9 7783 0000 2300
00001100 3ac9 94ae 0000 2300 3cc9 11f8 0000 2300
00001200 3dc9 803e 0000 b755 0000 0100 0500 0a00
00001300 fa00 fa00 fa00 fa00 fa00 0400 fa00 0300
```

tape

Comparison from disk to tape

- All 4410 files from Fall 2016 run still on gluonraid3
- md5sum recorded during tape copy compared to md5sum recalculated from gluonraid3 files
- 580 of 4410 files md5 sum don't match but file sizes do match
- All problem files on partition 3 (no problems with partition 4)
- 720 files on partition 3
- 1438 files on partition 4

Other info

- No disk errors seen in `/var/log/messages`
 - (some errors from zfs, but not raid)
- No errors seen in `/proc/mdstat`
- Corruption does not always appear at beginning of file
 - It can appear randomly in middle of file
 - Doesn't necessarily overlap a block header