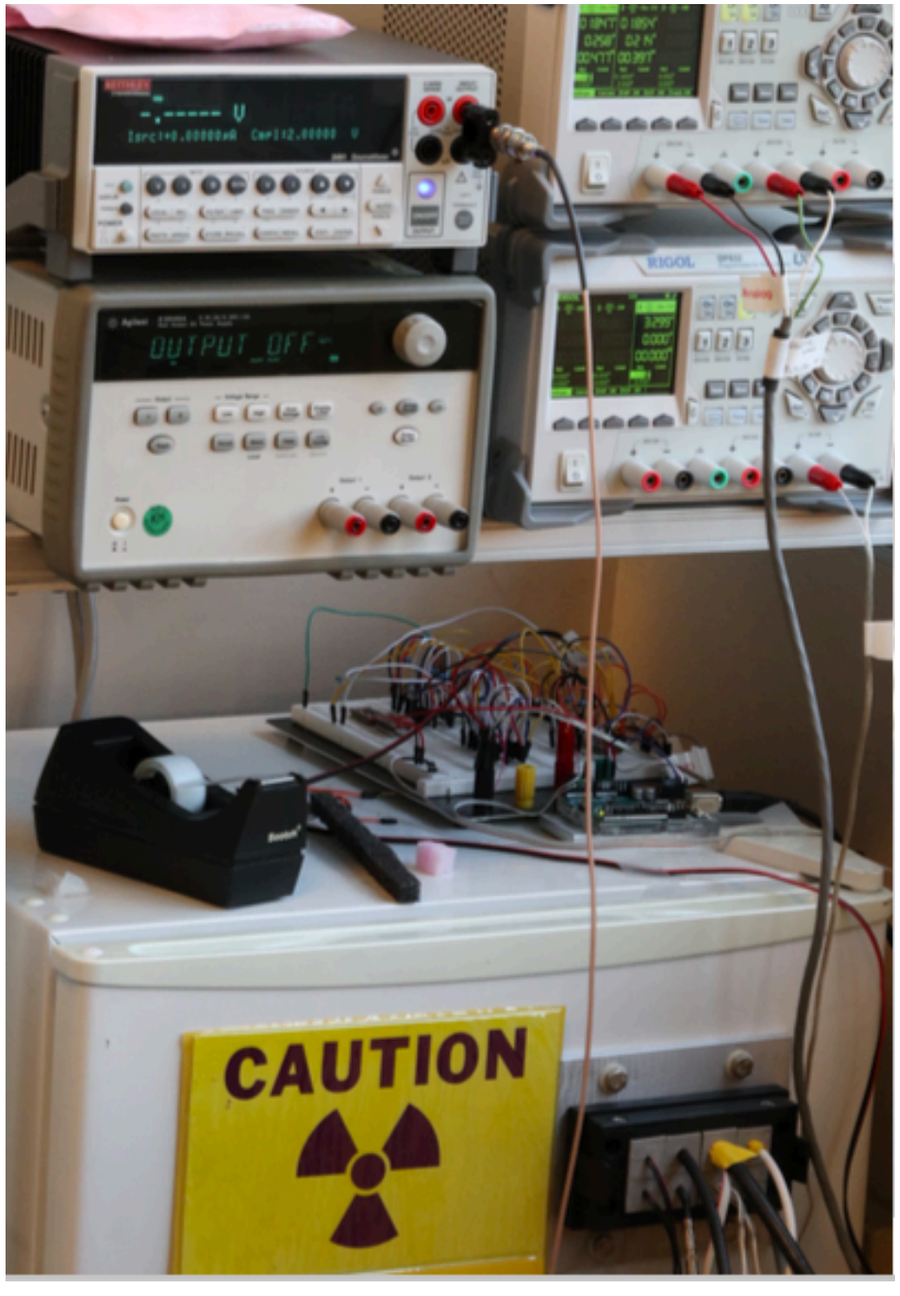
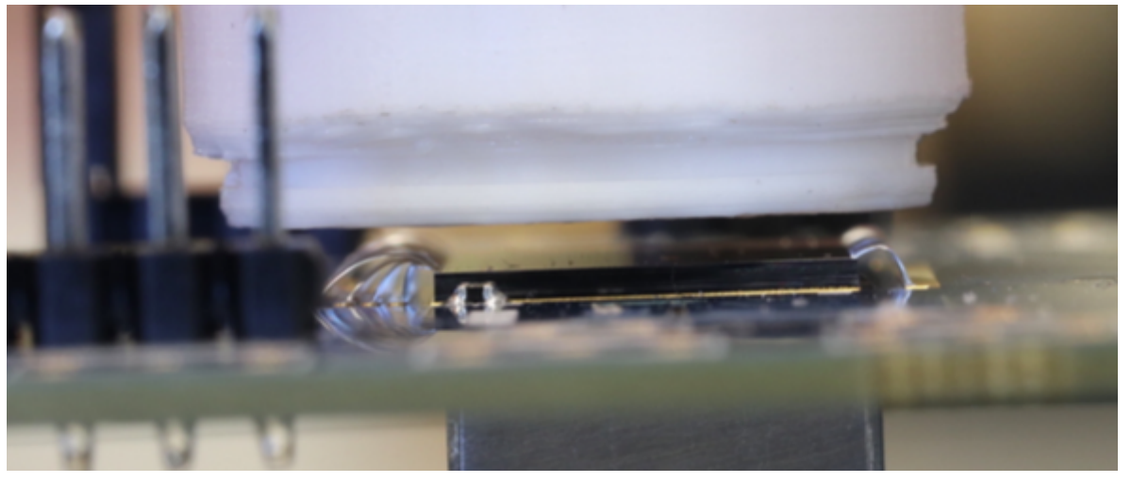
Low dose-rate irradiation of RD53A Chip

SLIPPER: SLow Irradiation of Phase-II PixEl Readout .

- Low dose-rate irradiation setup in the pixel lab
- RD53A Chip irradiated with Kr-85 (60mCi, 7 rad/s) since September 2018





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- On Tuesday, August 4 17:40 the power supply turned off
- Unable to configure the chip after multiple power-cycling
- Tried warming up (until 0 C) but still the same
- Kr-85 source taken out on Saturday, August 7 at 5:40

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- High humidity

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- On Tuesday, August 4 17:40 the power supply turned off
- Unable to configure the chip after multiple power-cycling
- Tried warming up (until 0 C) but still the same
- Kr-85 source taken out on Saturday, August 7 at 5:40 and put in a storage freezer
- Chip operated in Climate Chamber at -30C and tested
  - Direct powering
  - LDO with separate PLL power
- Chip put back in the freezer with a source on on Tuesday, August 11 at 15:46

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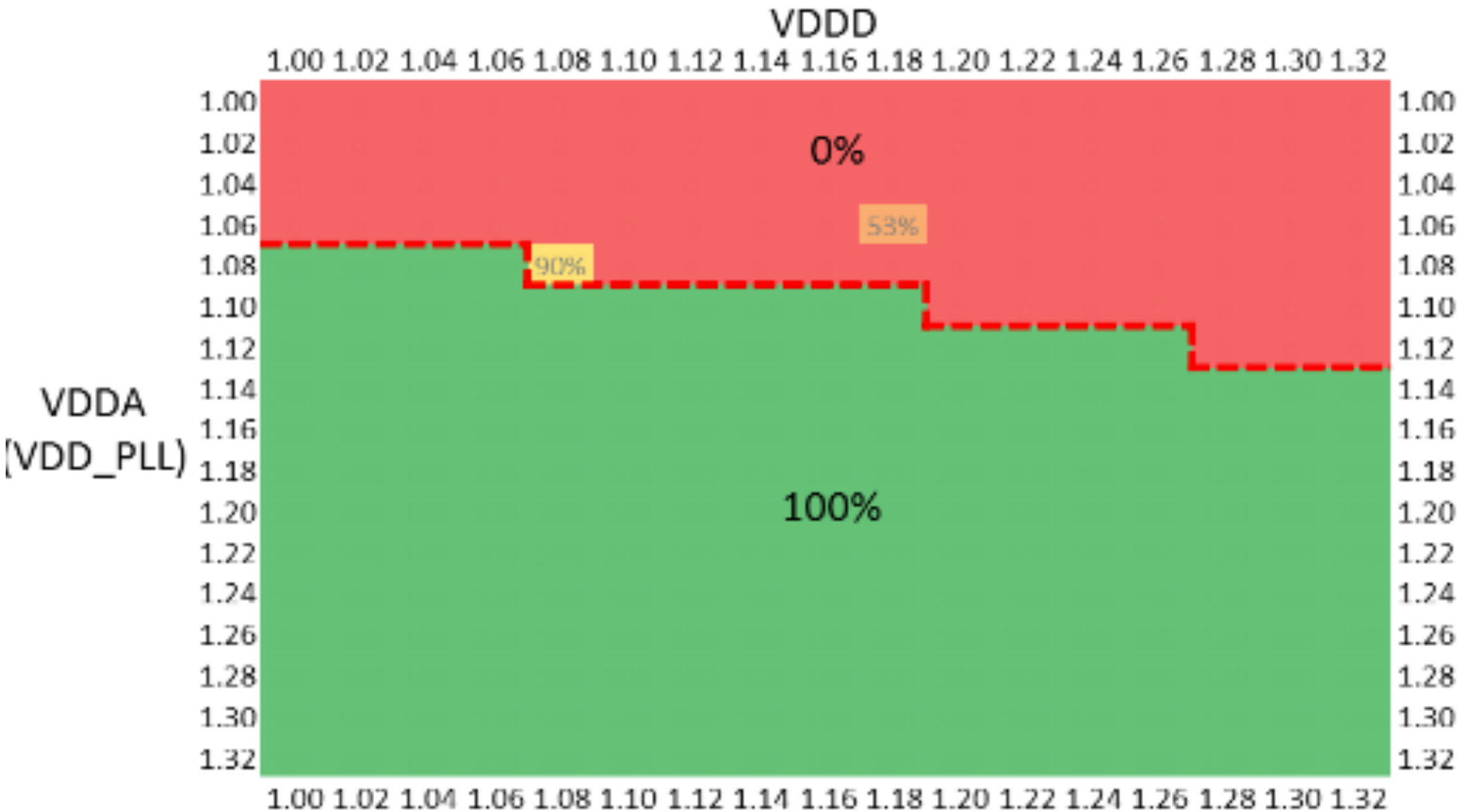
- What happened?



https://indico.cern.ch/event/731116/contributions/3022229/attachments/1658185/2655345/RD53A_vref_bandgap_hack.pdf

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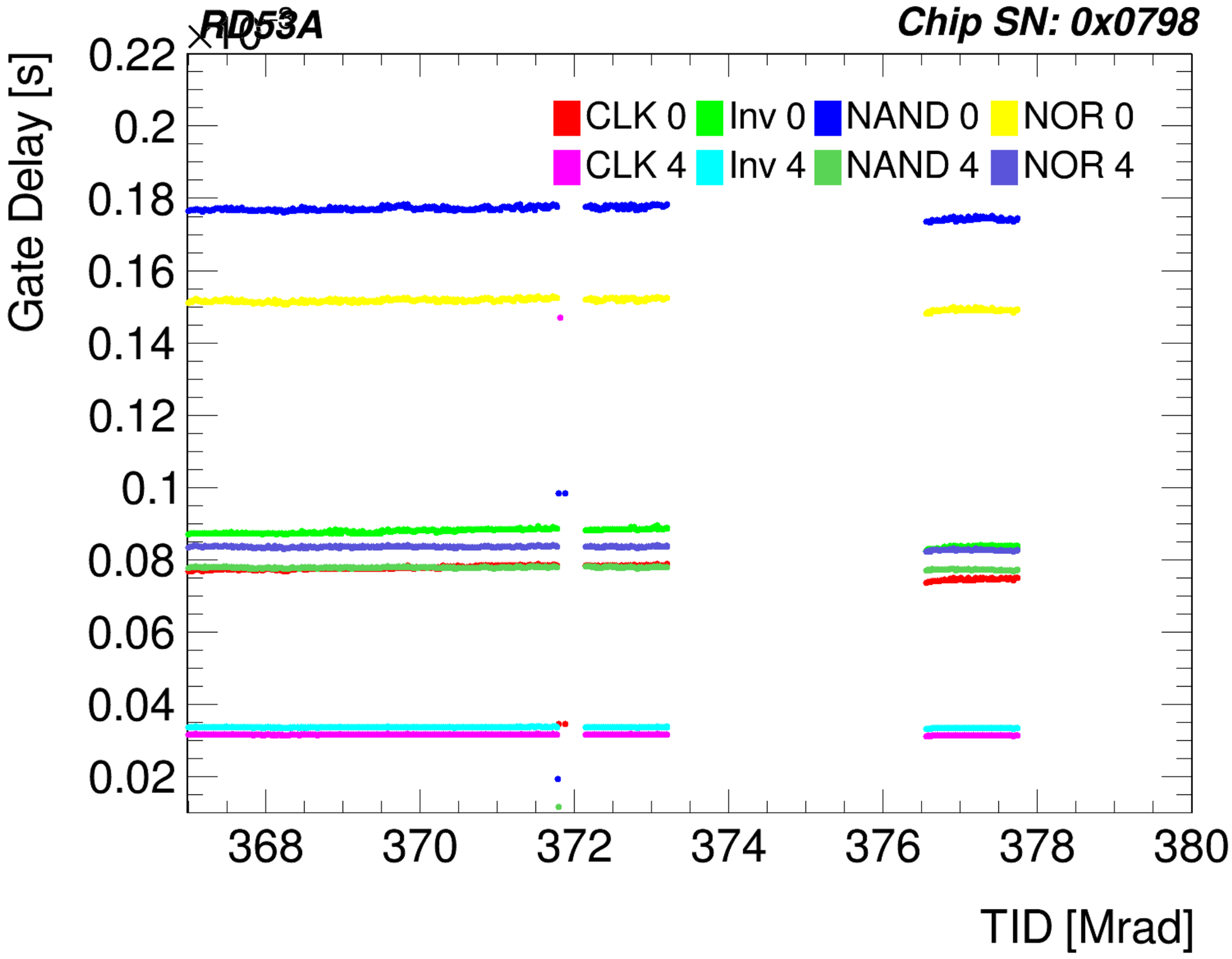
- Temperature 0.7 C lower than before



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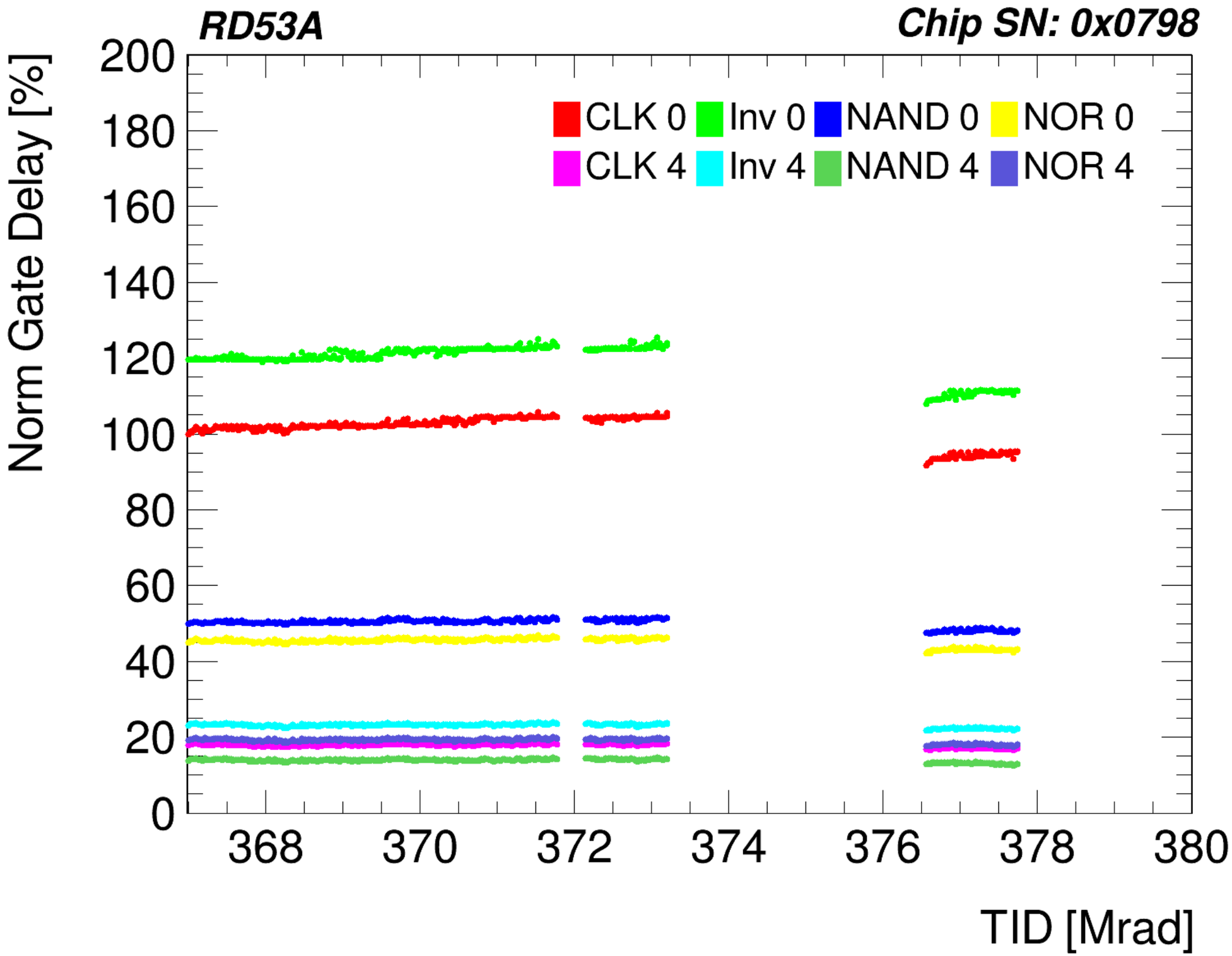

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