Using higher testpulses

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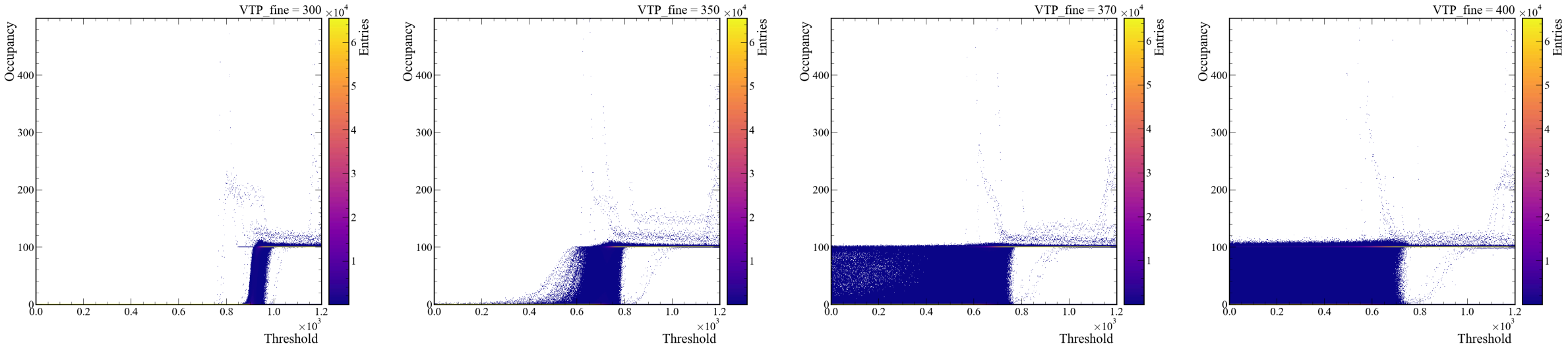
The Problem

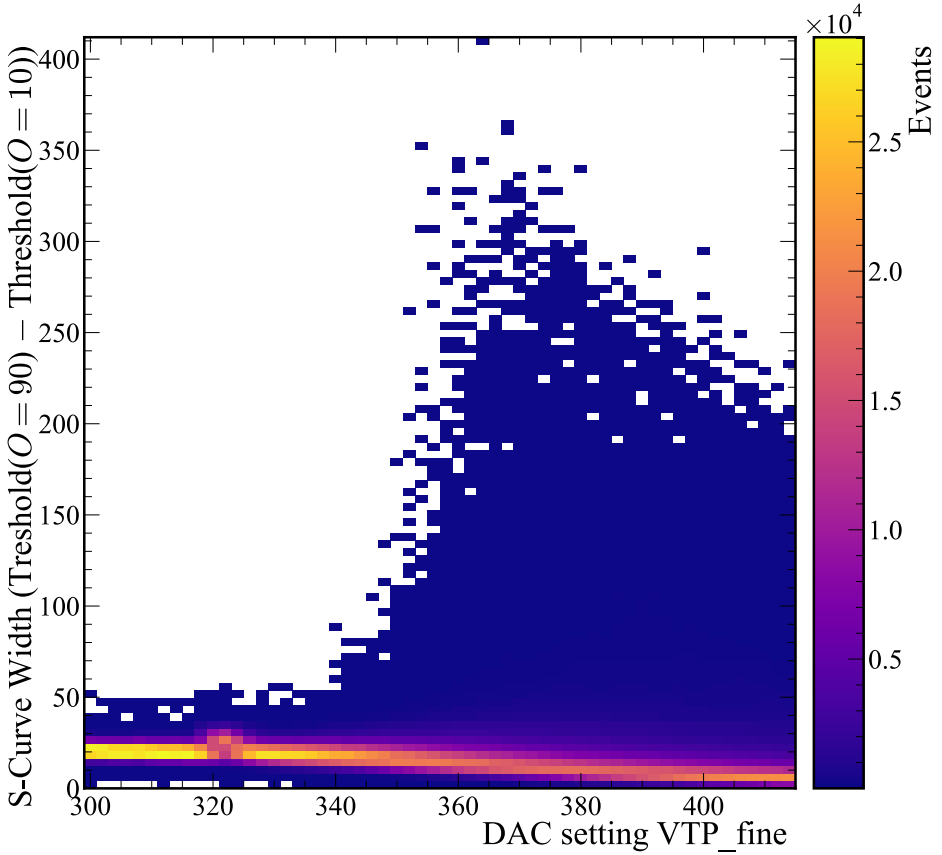
- Want to increase the testpulse height in the calibrations/scans to find the highest possible discharge current (low energy resolution setup)
- Found a good testpulse setting, but...

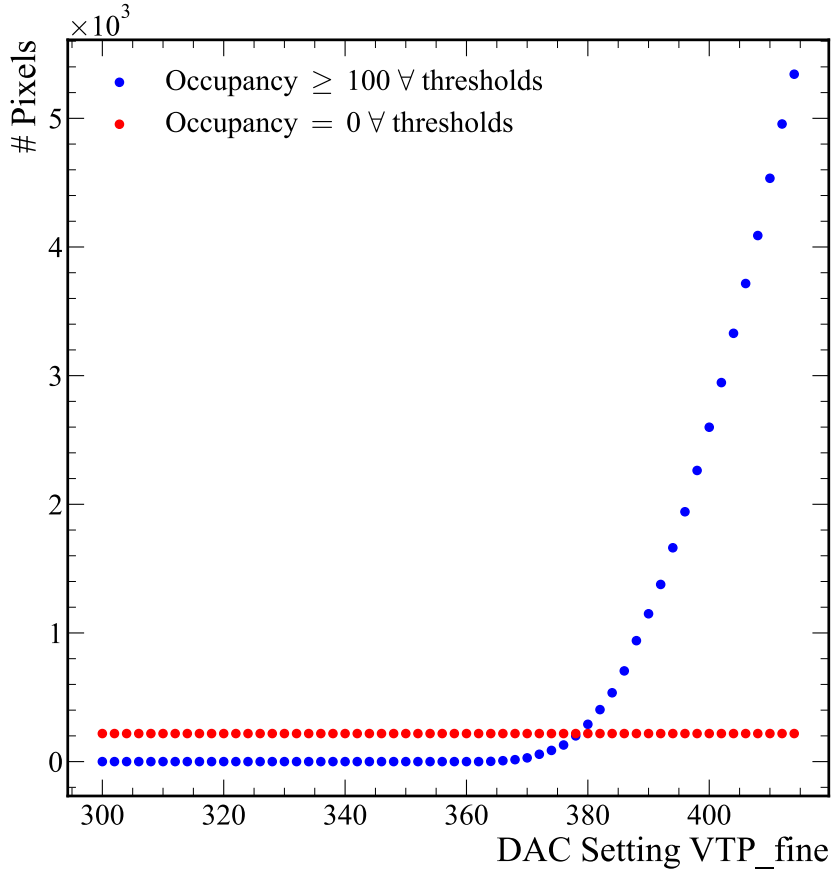


(low threshold values in these plots are actually high threshold)

A little bit more quantitatively

Calculate the width of the S-Curves by taking ΔThreshold from Occupancy $= 90$ to Occupancy $= 10$. For with values below 0 make a linear extrapolation (if possible)





Things we tried

- Changing `Ibias_Ikrum`: higher values decrease the Problem
- Increasing `TP_period`: No effect
- Change the mask steps:
  - Higher mask steps: no meaningful impact but still under investigation
  - Lower mask steps: decrease problem slightly (which is weird)
- Opposite Testpule polarity: No effect
- Also try with the Gridpix: same problem, even worse (under investigation)
- Test which pixels are problematic
  - No structure, seems random
  - Different pixels for different test pulse heights
  - For the same testpulse height mostly the same problematic pixels
- Increasing `TPBuffer`: No visible effect
- Curerntly trying higher supplied voltages again