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Subject: Re: FRS Calibration Issue

Posted by [SMilne](#) on Fri, 16 Jan 2015 00:53:23 GMT

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So upon second inspection of the calibrated FRS ToF plot (I don't know why I ignored this first time round!), there is this weird single bin stack at ~210ns.

So what I did was plot my calibrated FRS PID (using either the TPCs or the Scintillators) with a gate on FRS ToF<209ns, and what can be seen is that it removes the weird 'blob' on the right hand side which does not appear to correspond with any isotope of Ti. The slightly 'repeated' FRS PID 'plots' as you can see in my post (2 previous to yours) seems to be the result of those very small separated 'bumps' in the FRS ToF spectrum at lower values.

I'll probably try produce a gamma spectrum gated on this 'blob' later and see if it corresponds with anything.

So I guess my follow up questions would be:

- What is the reason for this single bin stack in the FRS ToF spectrum?
- Do my calibrations look fine other than this? The only issues I see are that my Z seems to have an offset of ~0.5 and some of the 'blobs' appear slightly doubled.

Thanks!

Scott

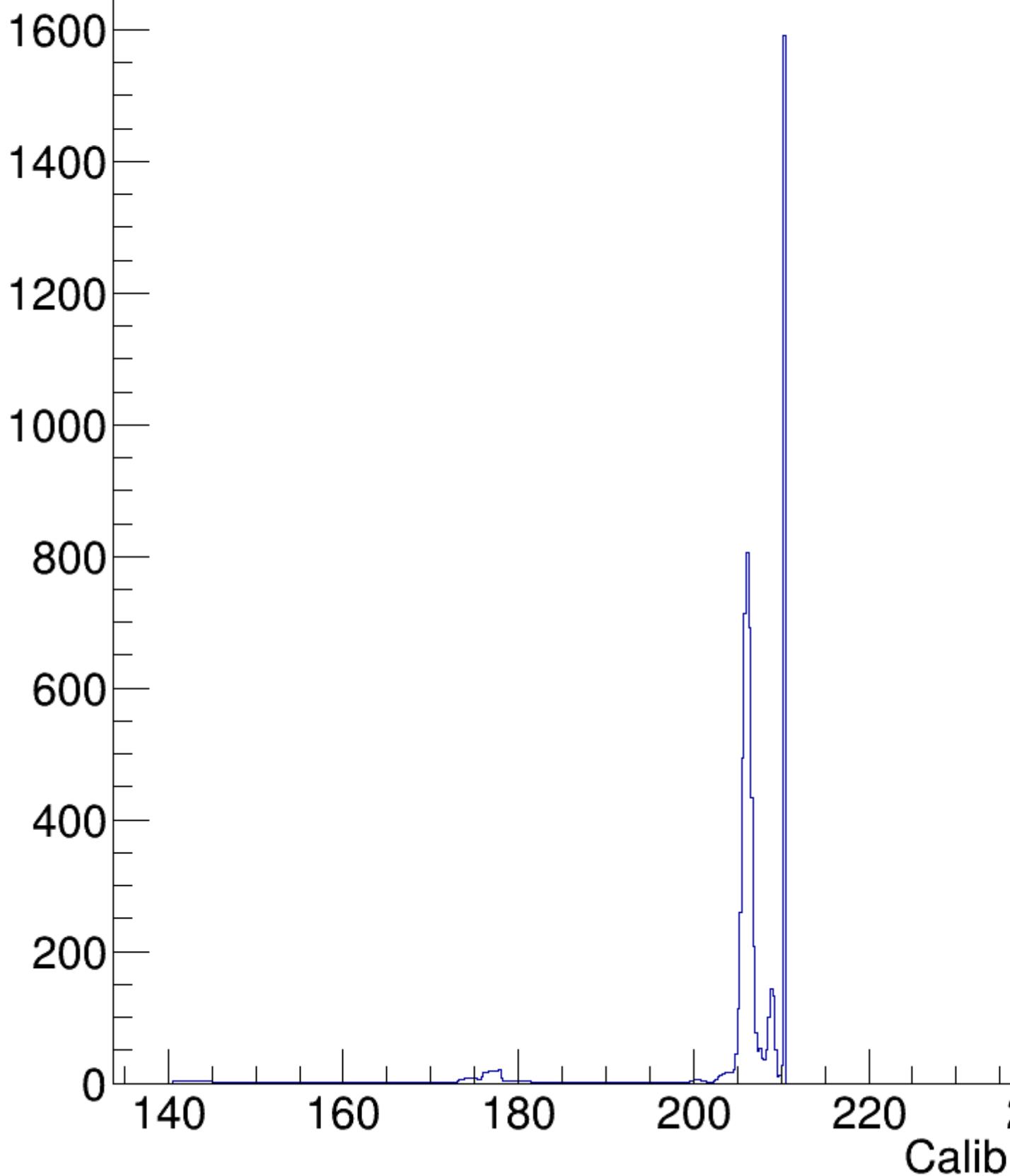
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#### File Attachments

- 1) [46Ti-ToF.png](#), downloaded 1129 times

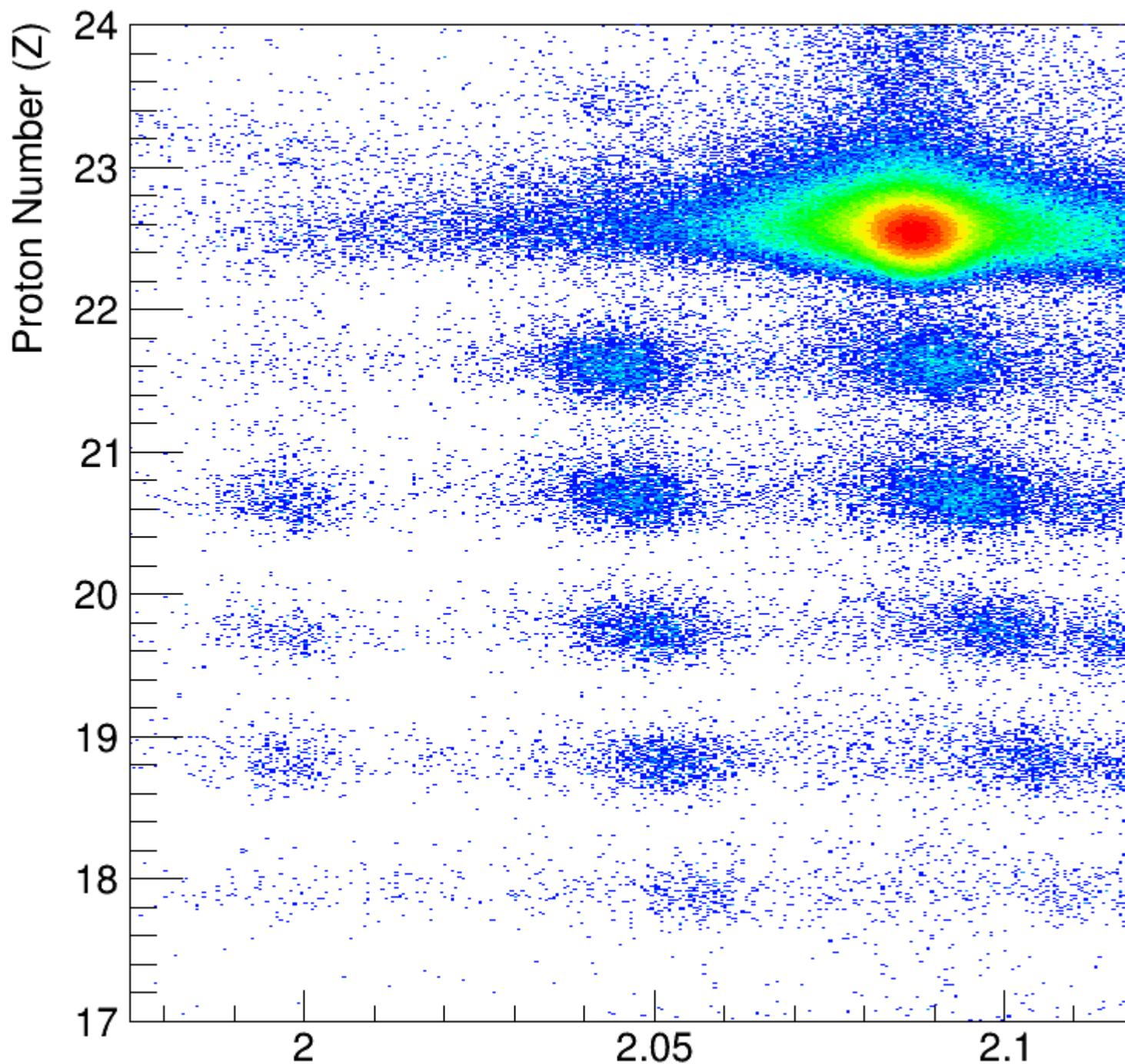
$\times 10^3$

# $^{46}\text{Ti}$ Lifetime Runs - FRS



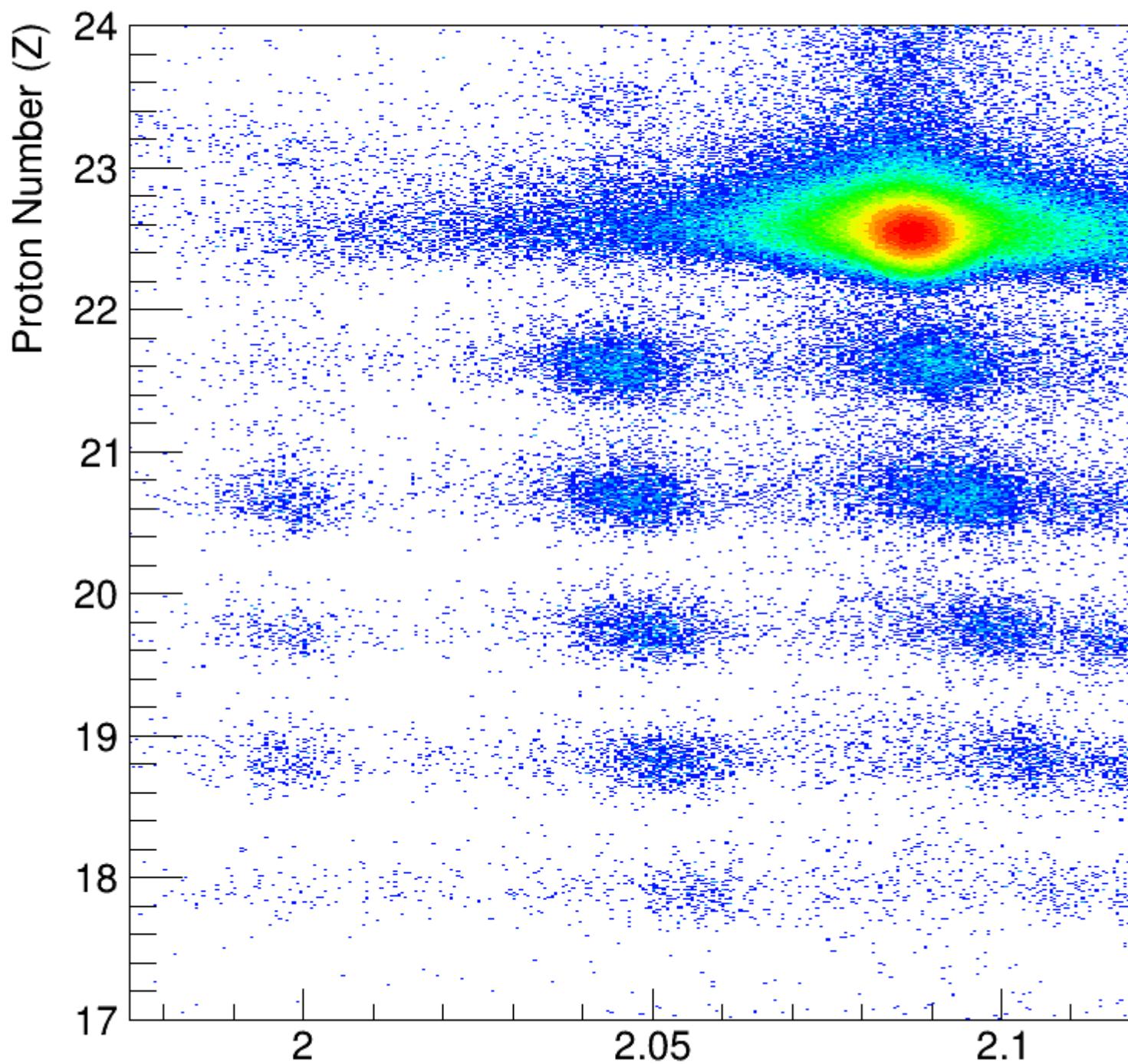
2) [46Ti-FRSID-TPCs.png](#), downloaded 1047 times

## FRS PID - $^{46}\text{Ti}$ Setting (Calib)



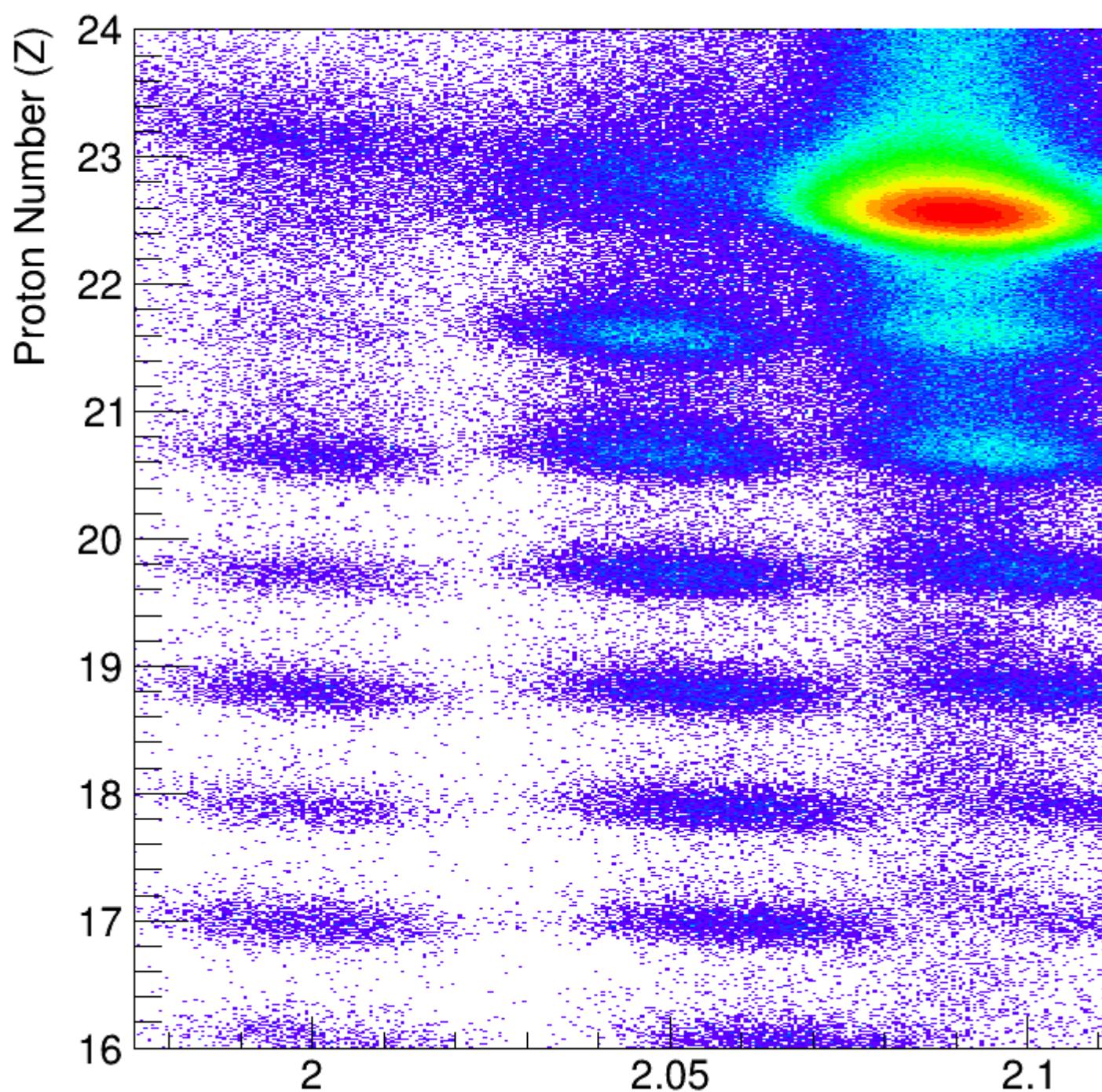
3) [46Ti-FRSID-TPCs-Corrected.png](#), downloaded 1136 times

# FRS PID - $^{46}\text{Ti}$ Setting (Calibrated +



4) [46Ti-FRSID-Sci.png](#), downloaded 1184 times

# FRS PID - $^{46}\text{Ti}$ Setting (Calib)



5) [46Ti-FRSID-Sci-Corrected.png](#), downloaded 1154 times

# FRS PID - $^{46}\text{Ti}$ Setting (Calibrated)

