IoLS Status Update

David Rivera

June 4, 2024
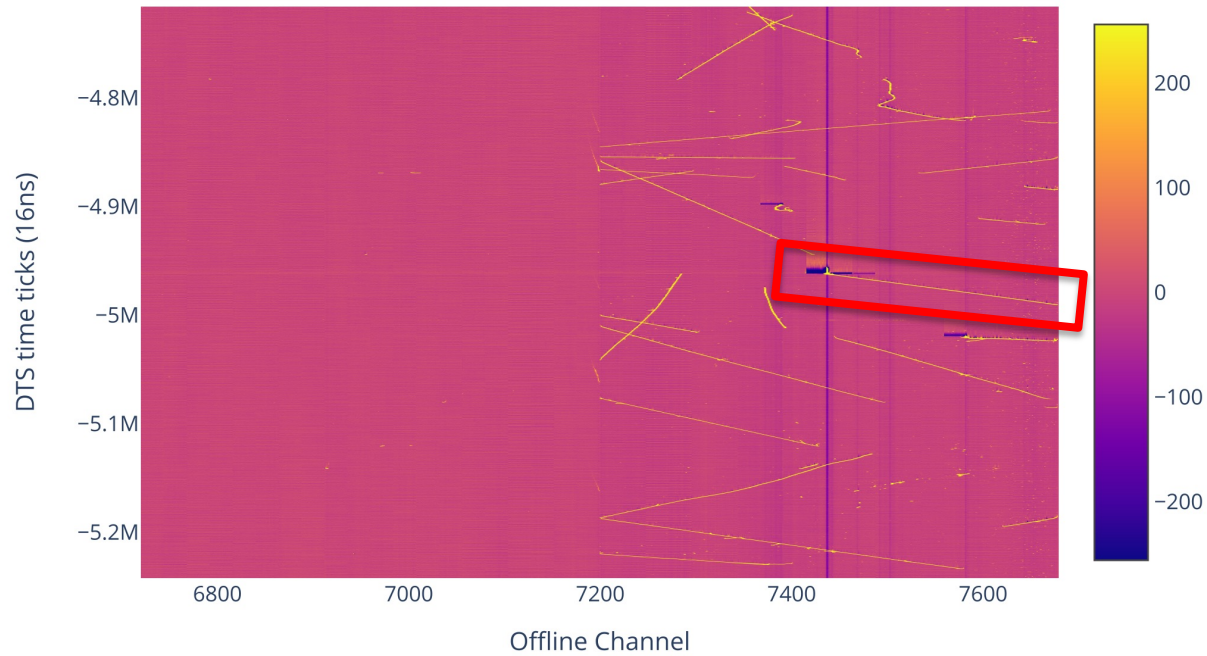
Table of contents
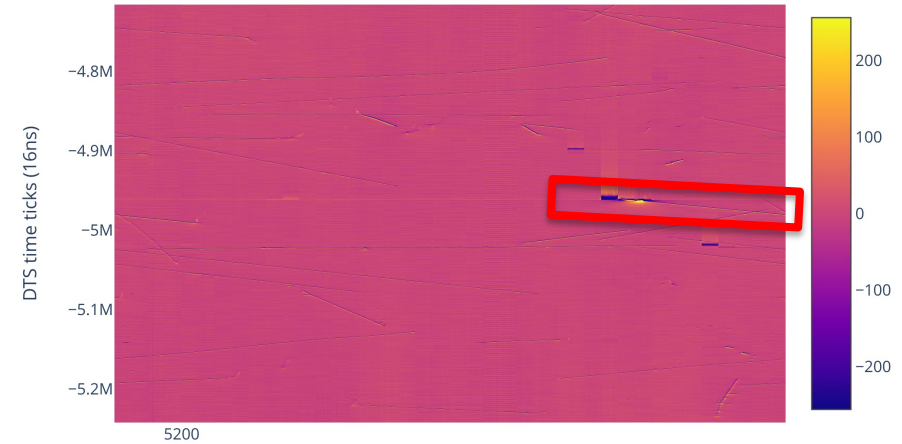
- Status

- Next steps and conclusions

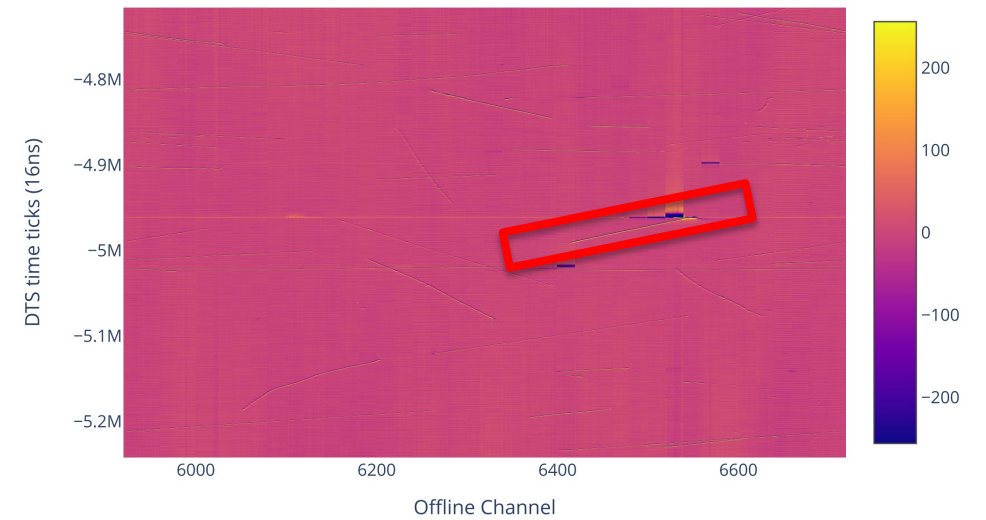# WE HAVE TRACKS!

Run 26574, Trigger 3, APA2 Plane 2

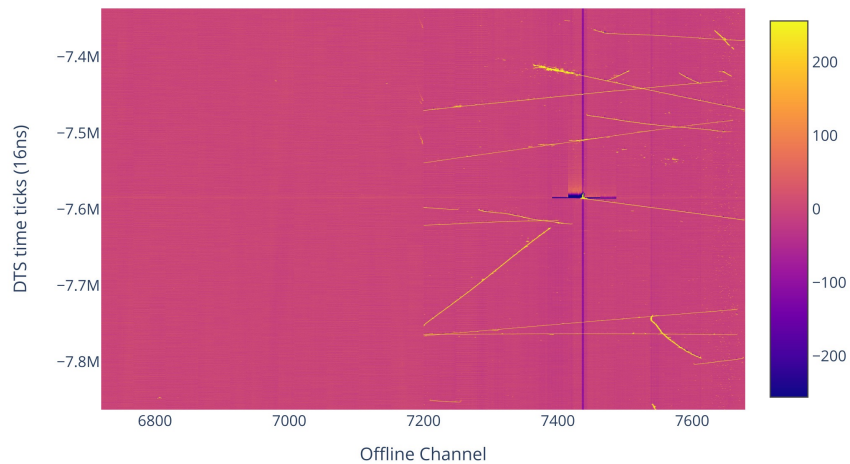Run 26574, Trigger 3, APA2 Plane 1

Big thank you to Artur and Wes for getting the run configuration.
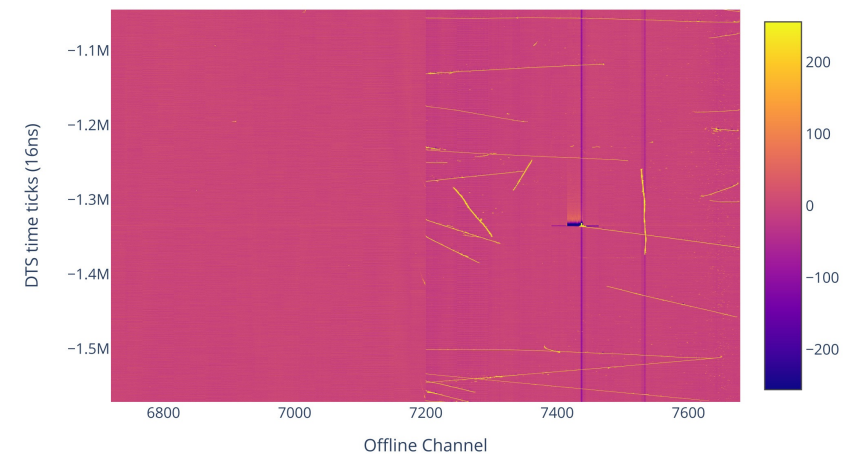
Confirmation

- Wide readout windows: 134 ms

  - 8 ms chunks -> 16 sequences

- 10 Hz laser -> 100 ms spacing between shots

- Run 26574, trigger #4

  - First track on sequence 1 (top)

  - Second track on sequence 13 (bottom)

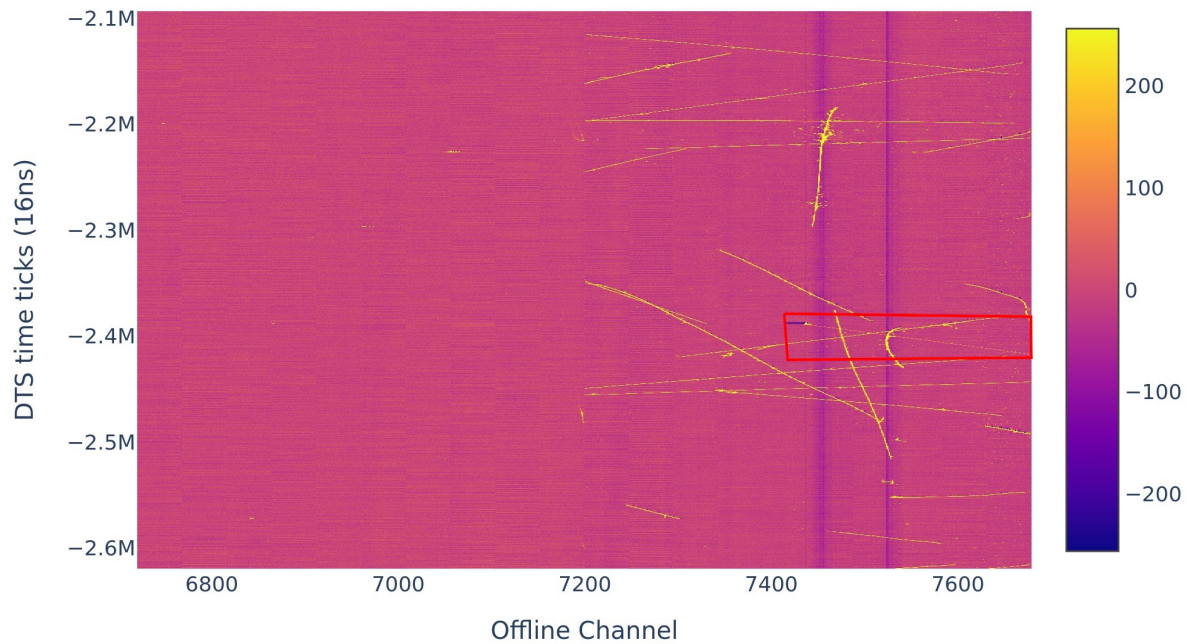Run 26574, Trigger 4, APA2 Plane 2

Run 26574, Trigger 4, APA2 Plane 2

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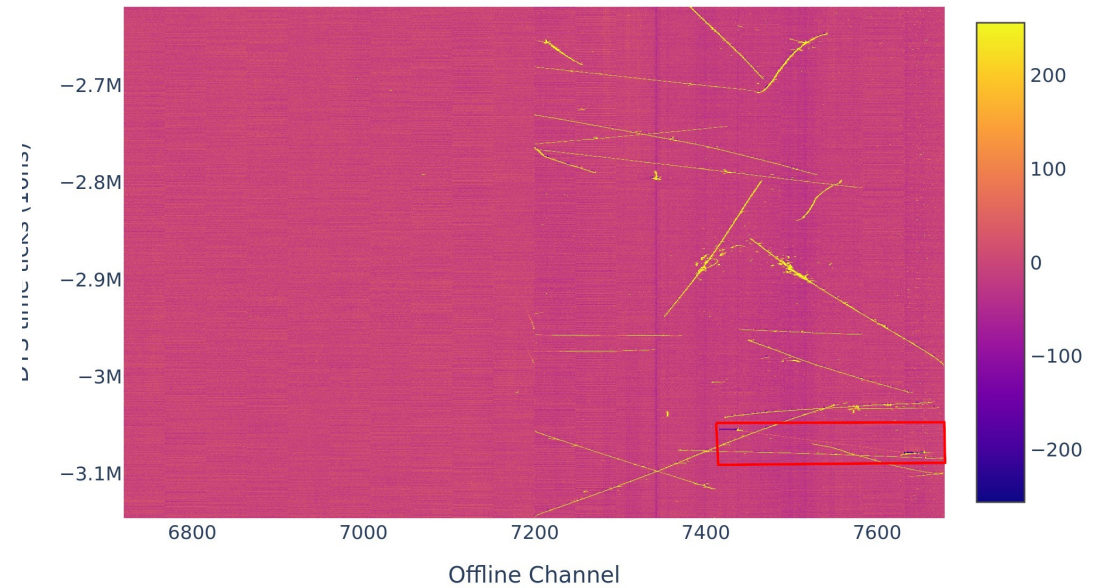
Half the energy

- ~7.5 mJ

Run 26576, Trigger 3, APA2 Plane 2

Run 26576, Trigger 2, APA2 Plane 2

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Scan

Run 26581, Trigger 25, APA2 Plane 2

Run 26581, Trigger 12, APA2 Plane 2
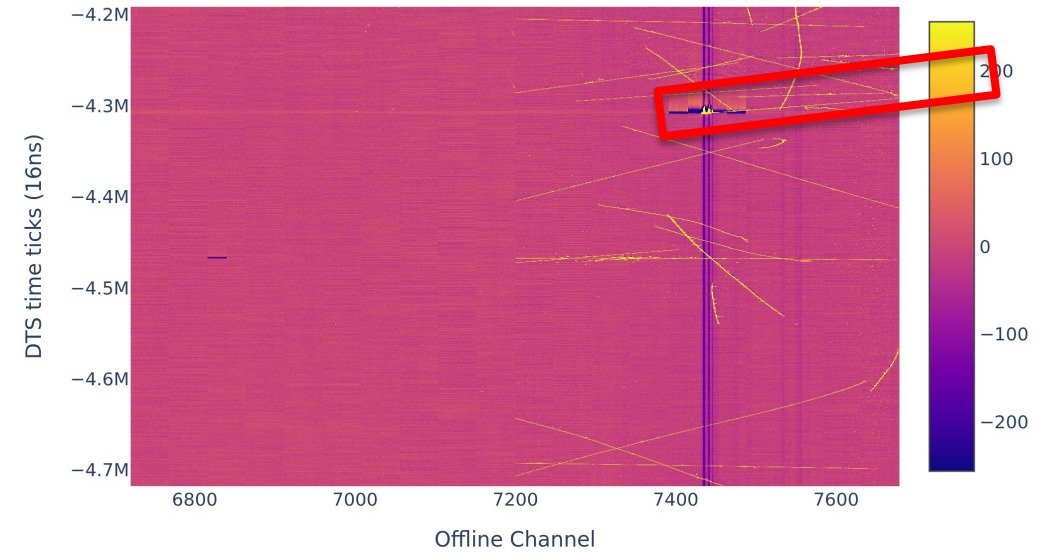
Steps to getting tracks

P1

Align UV to green lasers on VS	Verify the port alignment
Define reference; clear paths using cameras	Aim at PIN Diodes
	Shoot!

P2

Align UV to green lasers on VS	Define reference; clear paths using cameras
	Aim at PIN Diodes w/ UV
	Shoot through the field cage gaps!

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Status of P1

- Fully enclose the system and prepare it for remote operations

- Continue CIB integrations

- Aim at known locations of Space Charge buildup

  – Scan the upstream end of the detector

Next steps

- Search for PIN diodes again

  – Use these to calibrate our aiming system

Introduction

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