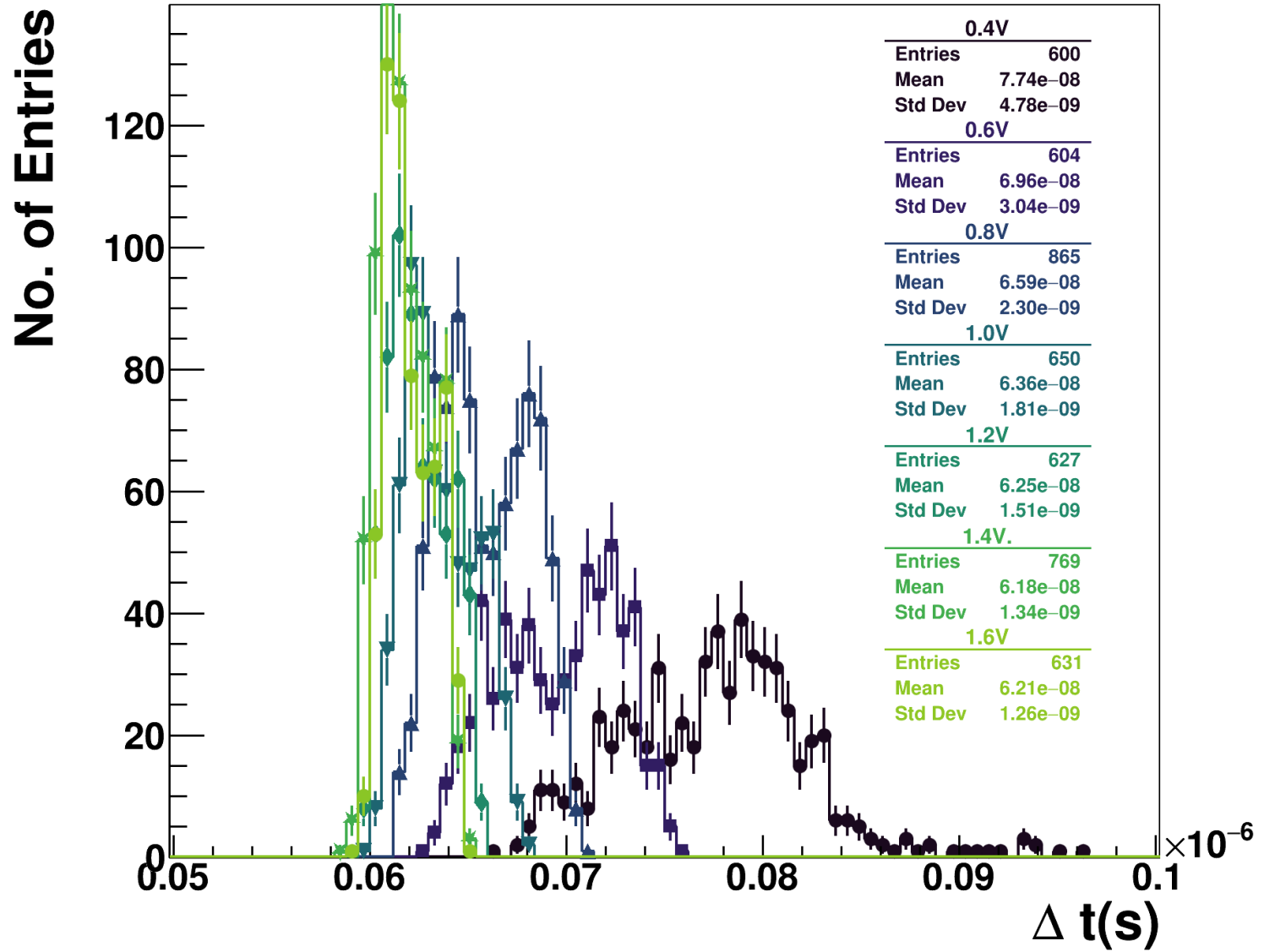# Checking pulse

- Last week: showed fairly poor time resolution with MPW3

- As per suggestions measured the pulse generator signal on the board to ensure no reflections are present.
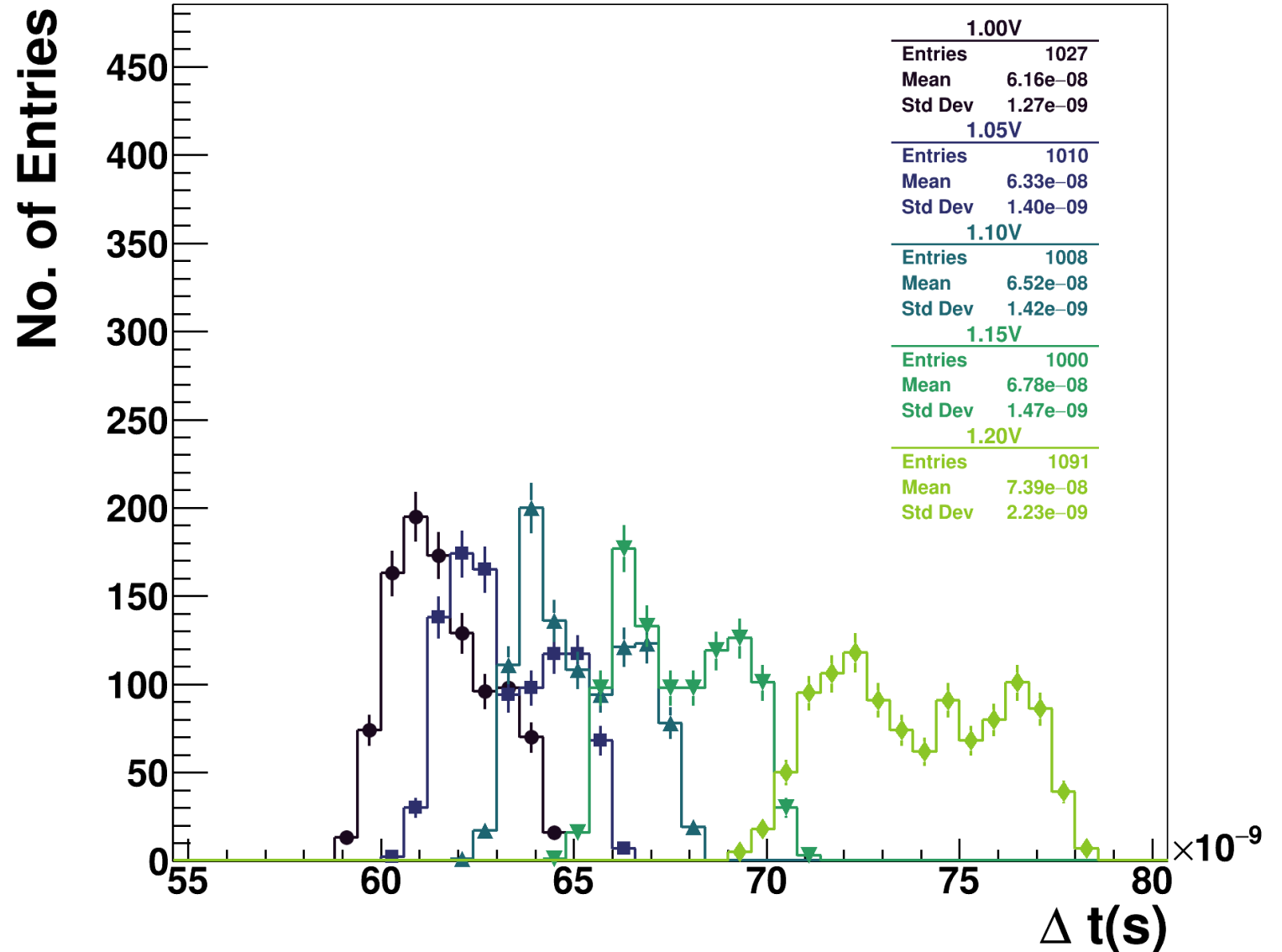
- Overall no major reflections visible.

Time resolution: Injection

- Checked further the relation between injection charge, threshold and time resolution

- Pixel r60c2 was operated at 1V threshold

Time resolution: Threshold

- Checked further the relation between injection charge, threshold and time resolution

- Pixel r60c2 was operated at 1.5V injection

- Previous assumption of threshold was incorrect?

- See no pulses beyond 1.23V threshold

1.00V	
Entries	1027
Mean	6.16e−08
Std Dev	1.27e−09
1.05V	
Entries	1010
Mean	6.33e−08
Std Dev	1.40e−09
1.10V	
Entries	1008
Mean	6.52e−08
Std Dev	1.42e−09
1.15V	
Entries	1000
Mean	6.78e−08
Std Dev	1.47e−09
1.20V	
Entries	1091
Mean	7.39e−08
Std Dev	2.23e−09

A few questions and ideas

- Injection voltage of 1.5V ~= 2.8fF * 1.5V = 26250 e-

- I see no signal beyond 1.23V threshold.

- Was the effect of the threshold always this strong?

- Investigating if there is a pattern over row/column with the time resolution

- Maybe threshold or injection is not very stable?

Nik|hef