First E/p fits with the 9 day

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20th Sept 2019

Introduction

We can remove the gain correction on the 9 day DSTs* without modifying them, and make some E/p plots...

How? Re-define cluster energy inside plotter code so that

$$rawCluster = correctedCluster \times G(t)$$

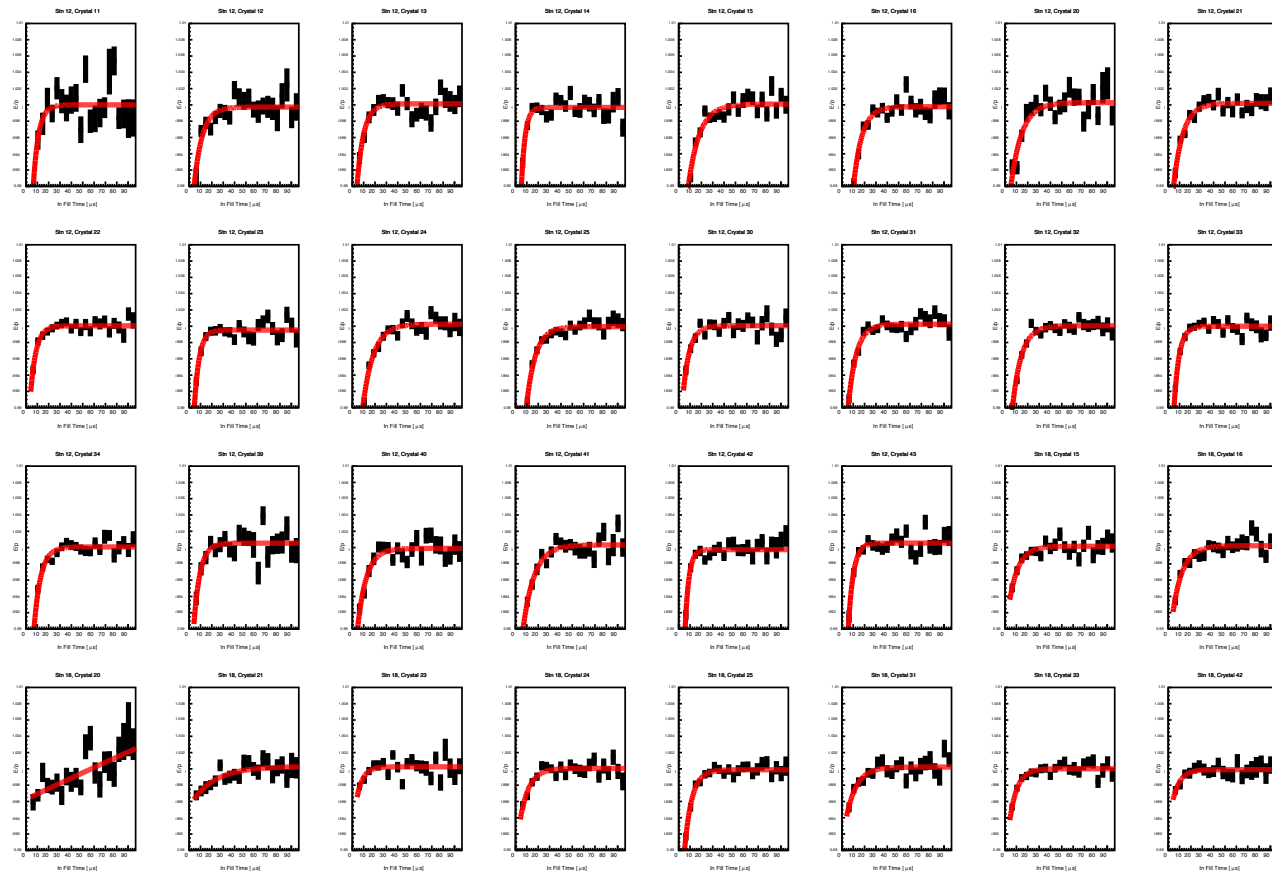$G(t)$ is the usual IFG function, with a normalisation of one. This will restore the IFG sag.

*/mnt/strawRaid01/omegaEU/9day_5040A/
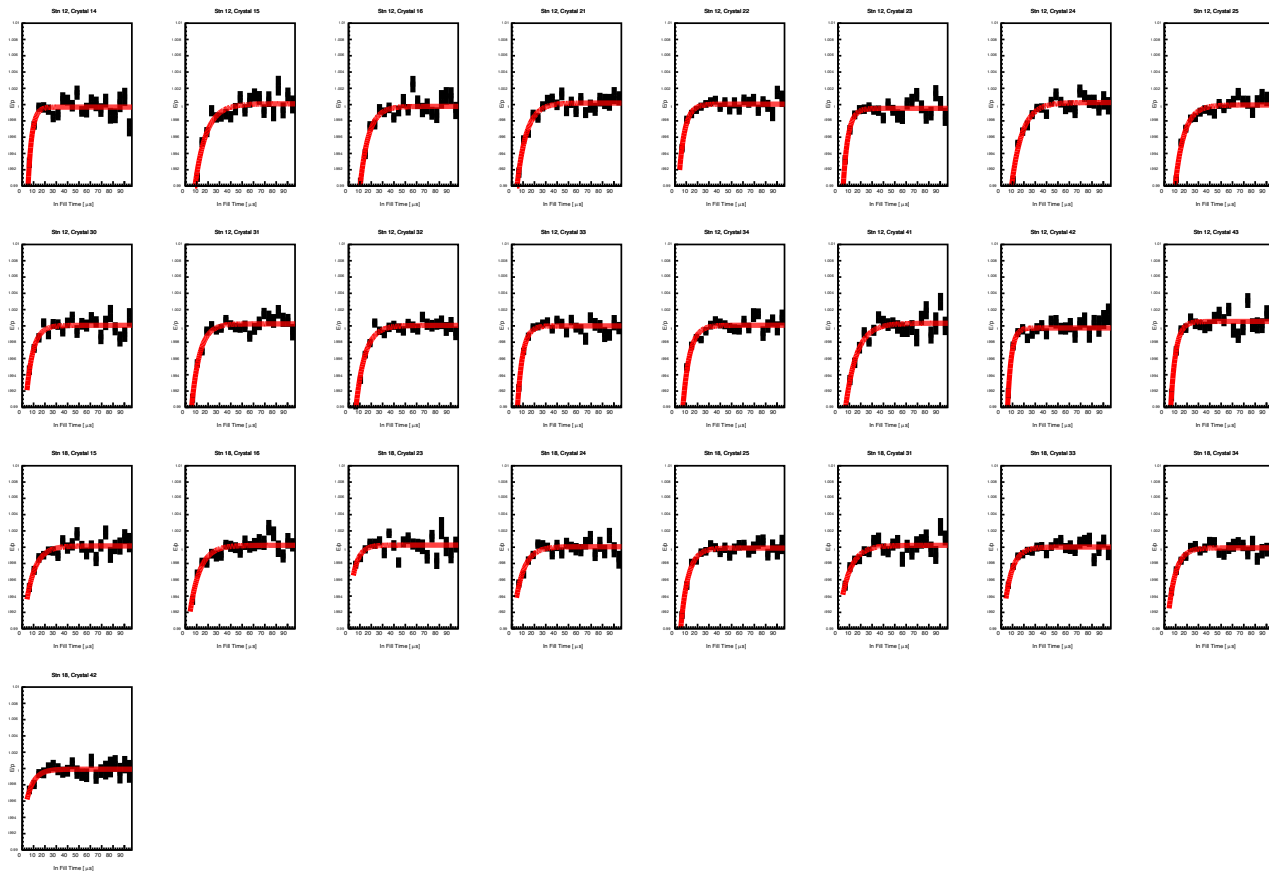
First fits (per breakout board)
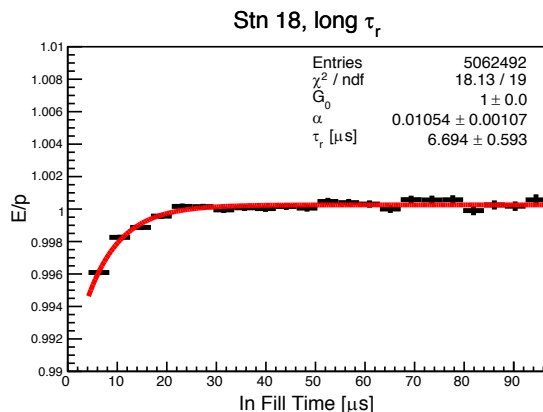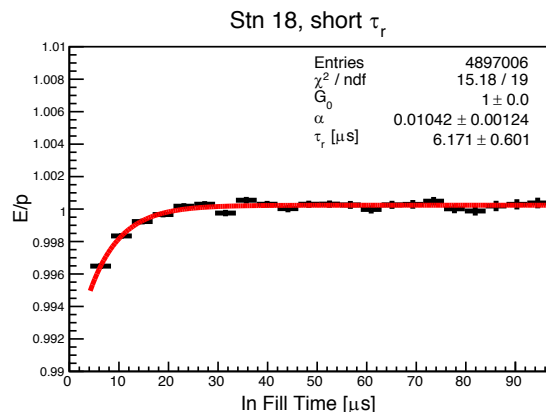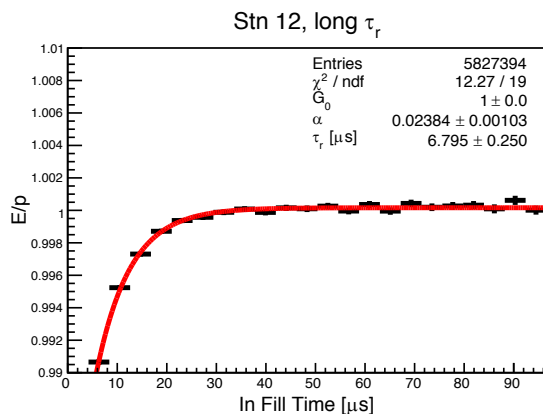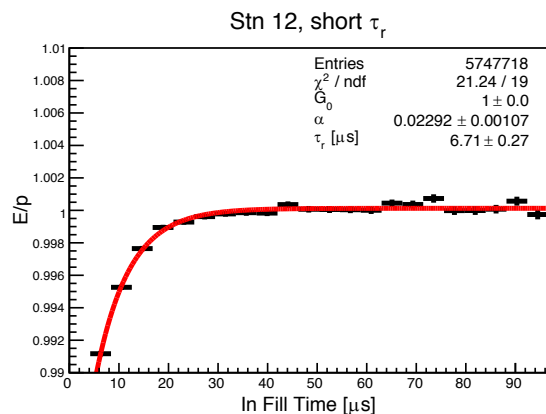
- Fits are good;

- Short lifetime board has a longer lifetime than it should;

- The resolution between the two boards is still not good enough.
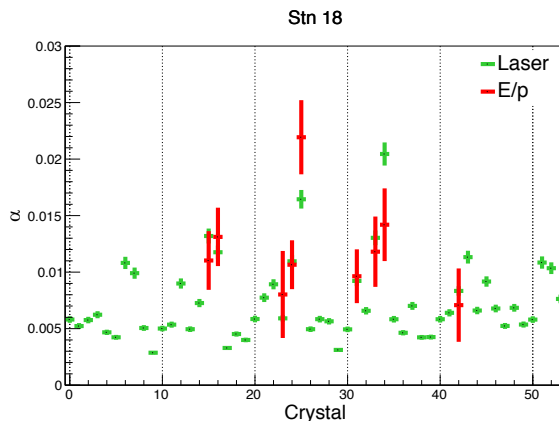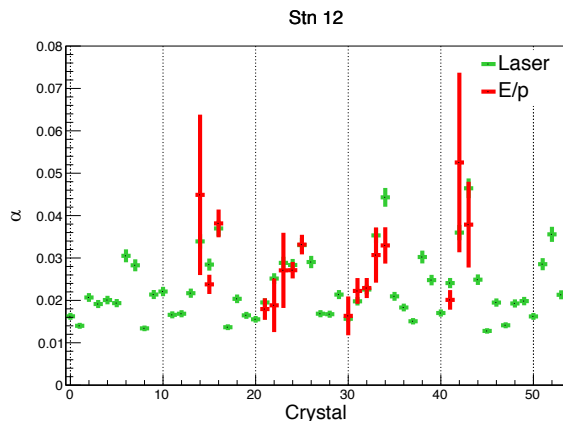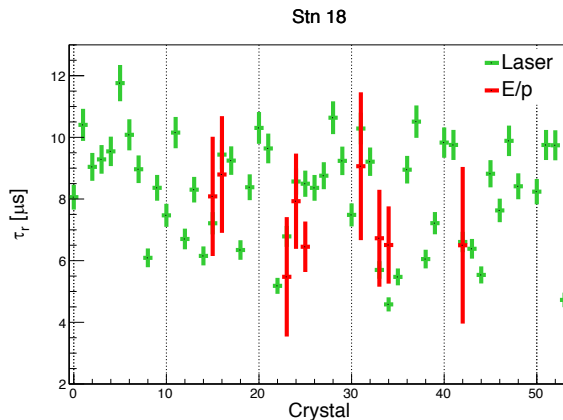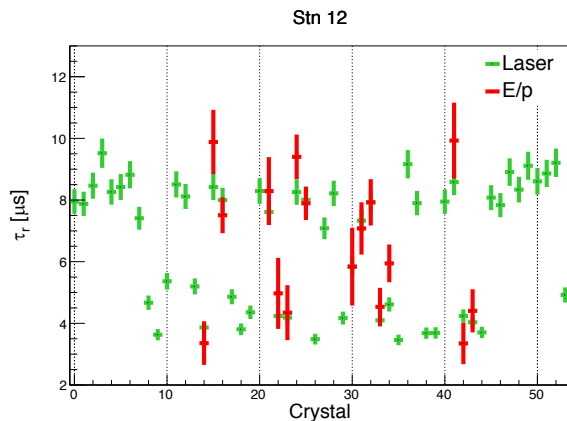
First fits (per xtal)

- 32 xtals pass quality cuts, compared to from 18 for the 60 hour;

- Some odd ones, so I increased the stat cut by factor of 3.6 to reflect the increase in stats for the 9 day (next slide).
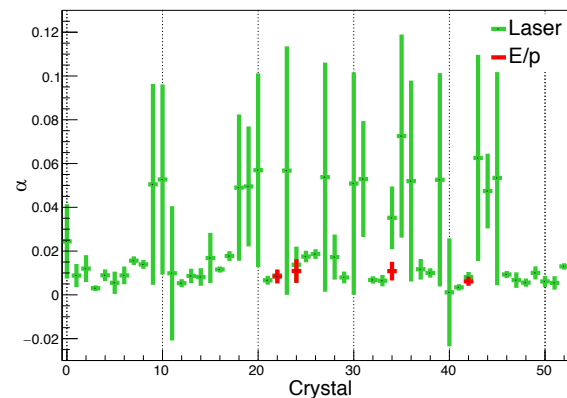
- 25 xtals pass quality cuts;

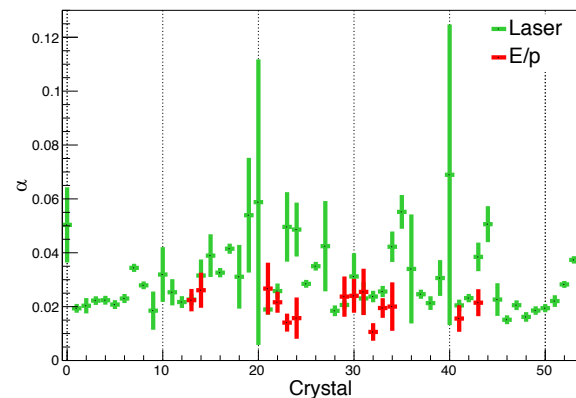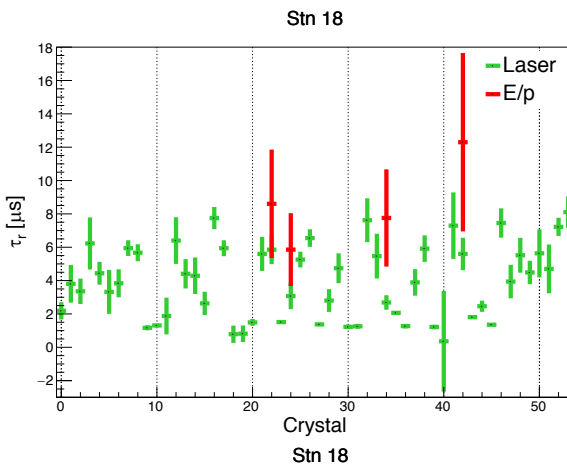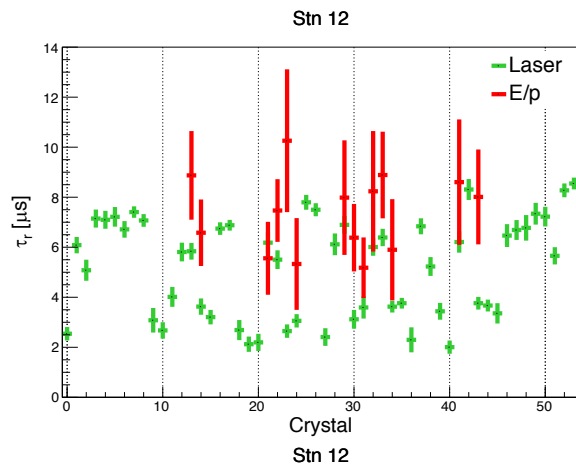- It does remove the odd ones, but too harsh?

- Still an significant improvement over the 60 hour.

- Looks good! Better than the 60 hour (next slide);

- I can see some breakout structure;

- No uncertainties on the laser yet. 5% uncertainties are a placeholder;

- When I get them I will look at the pulls ect.

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60 hour results look less consistent; and the uncertainties are larger.

Conclusion

- I can remove the IFG correction, and make E/p plots with the 9 day;

- First results seem promising;

- I'm working with Anna to get the laser uncertainties so that I can move forward.

Thanks also to Matteo for his help with this!