

# Microburst Time of Flight Dispersion

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# Inverse dispersed microbursts

Hypothesized by a time of flight model in Miyoshi et al., (2010) and Saito et al., (2012)

I stumbled into them. Surprisingly I did not find them when I looked for them in ~2016.

I identified microbursts using the burst parameter and fit all of the microbursts with a Gaussian + linear trend.

$R^2$  and adj  $R^2$  are the quality of fits

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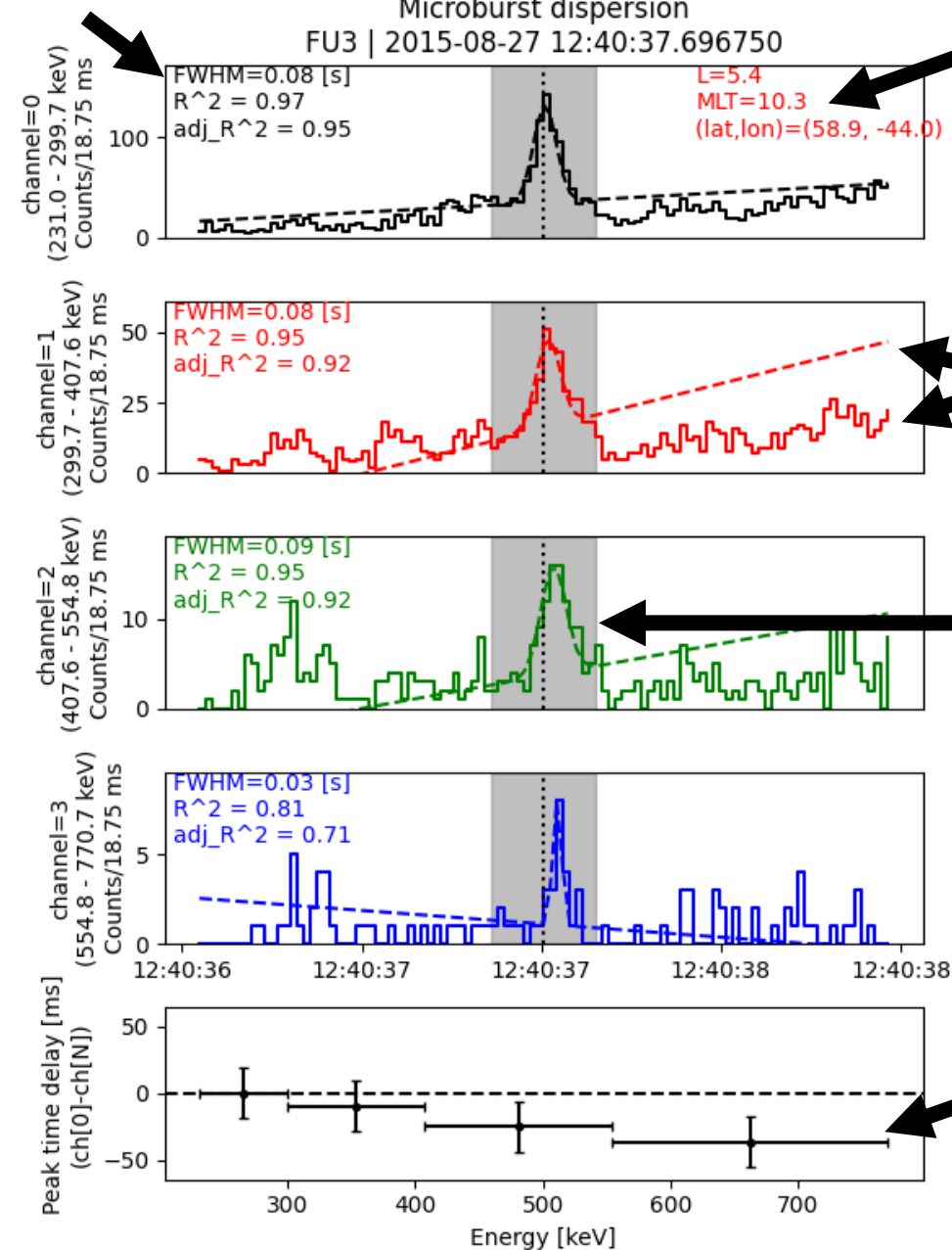
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Fit info

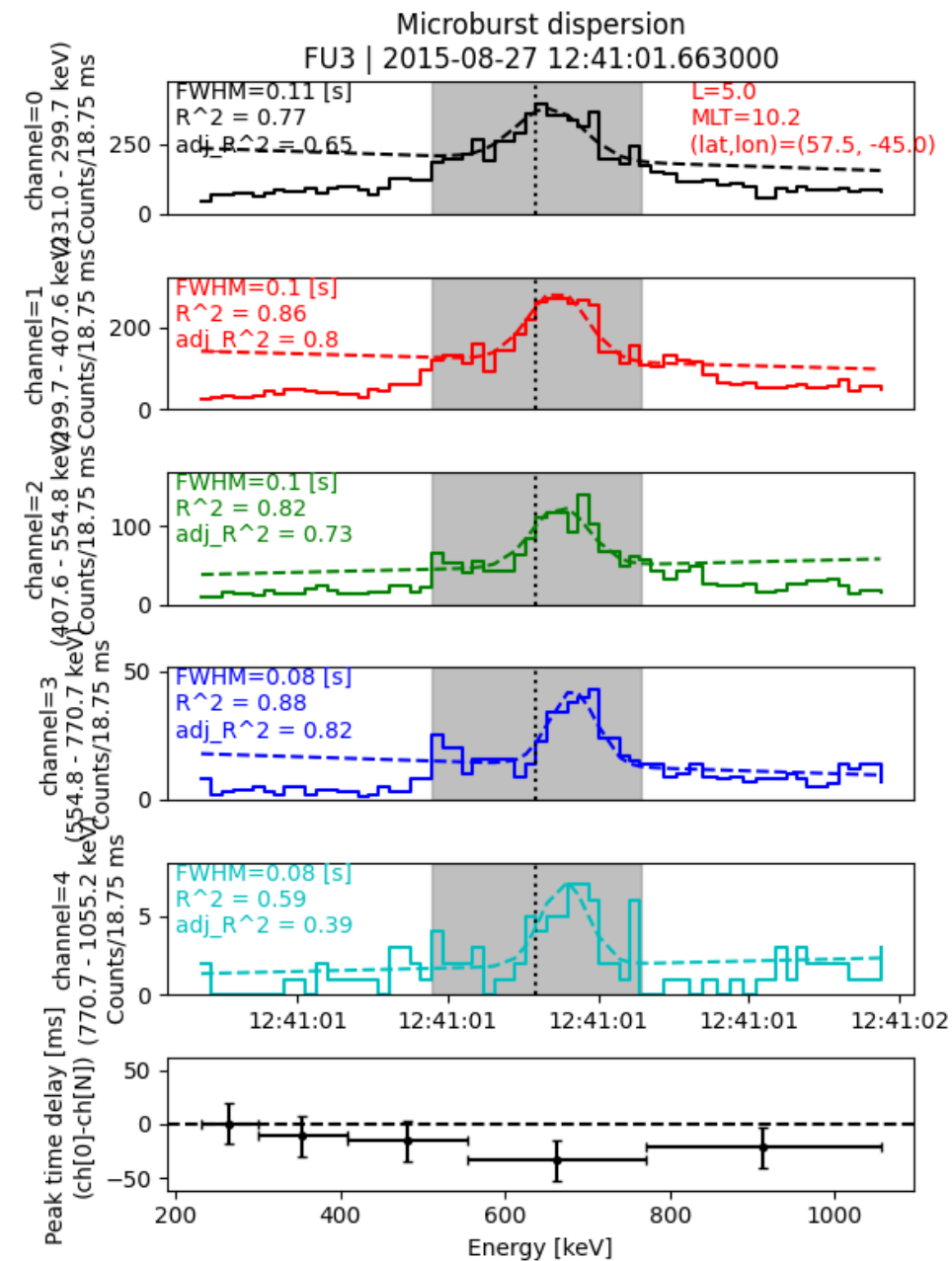
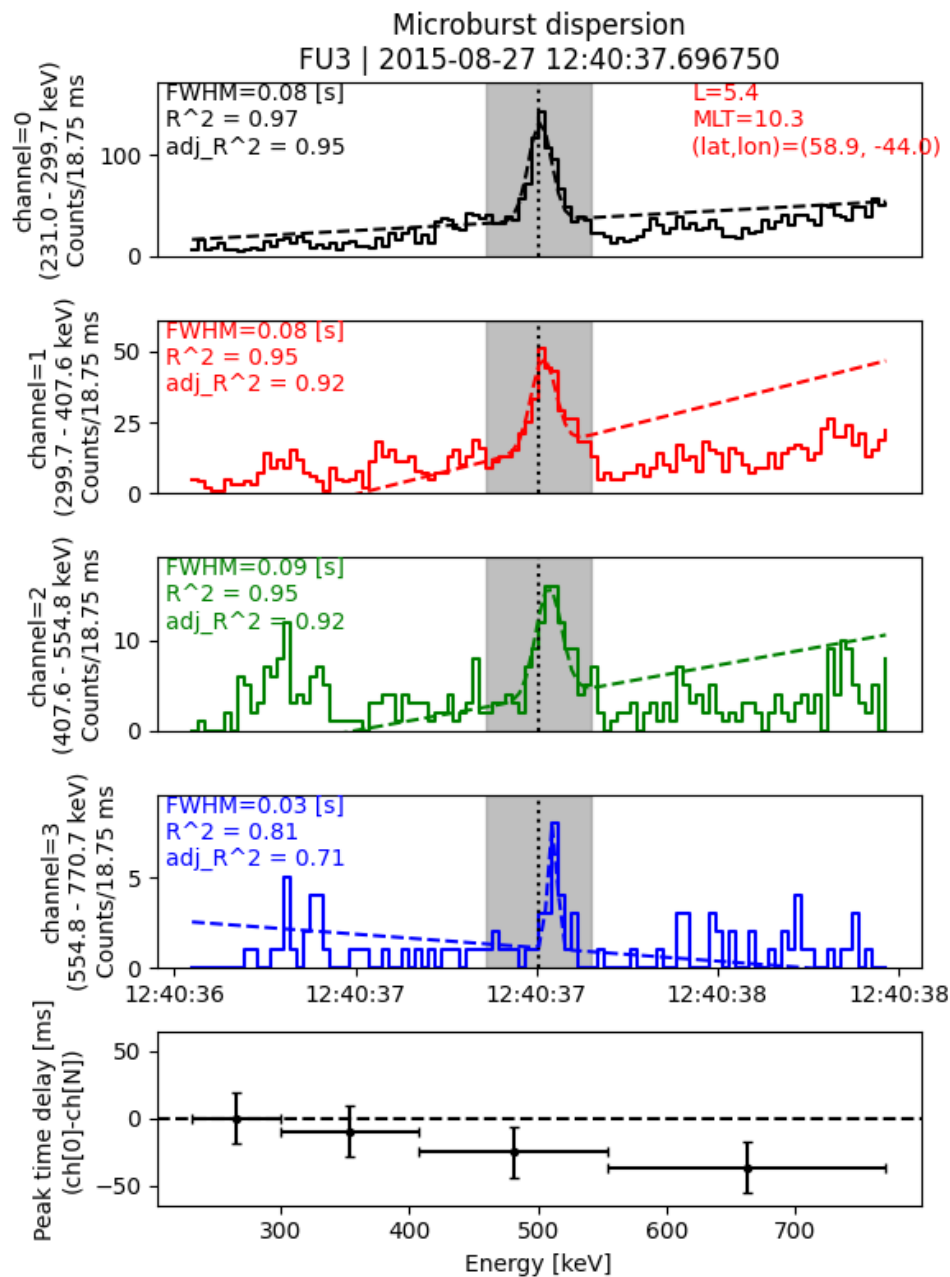


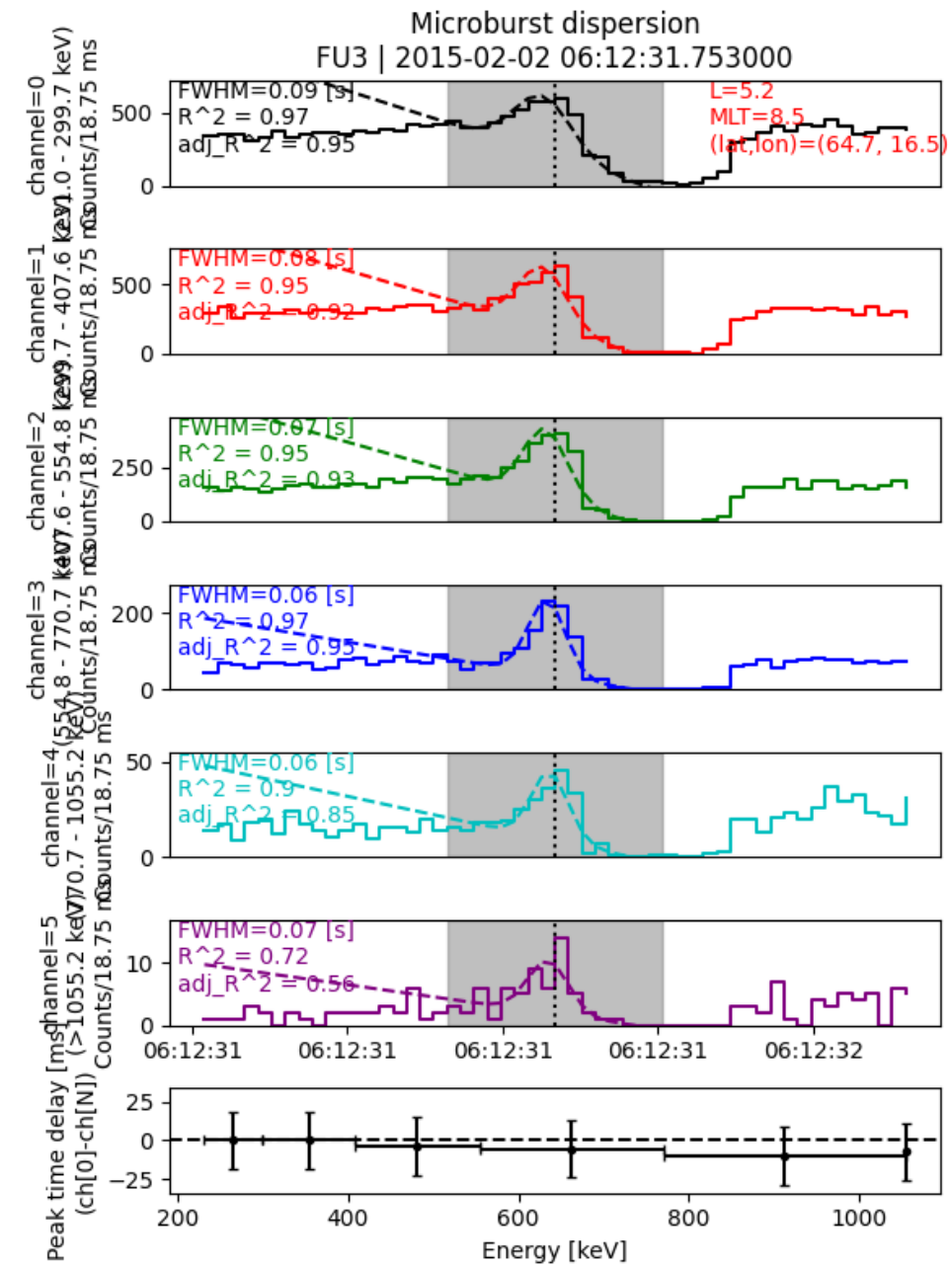
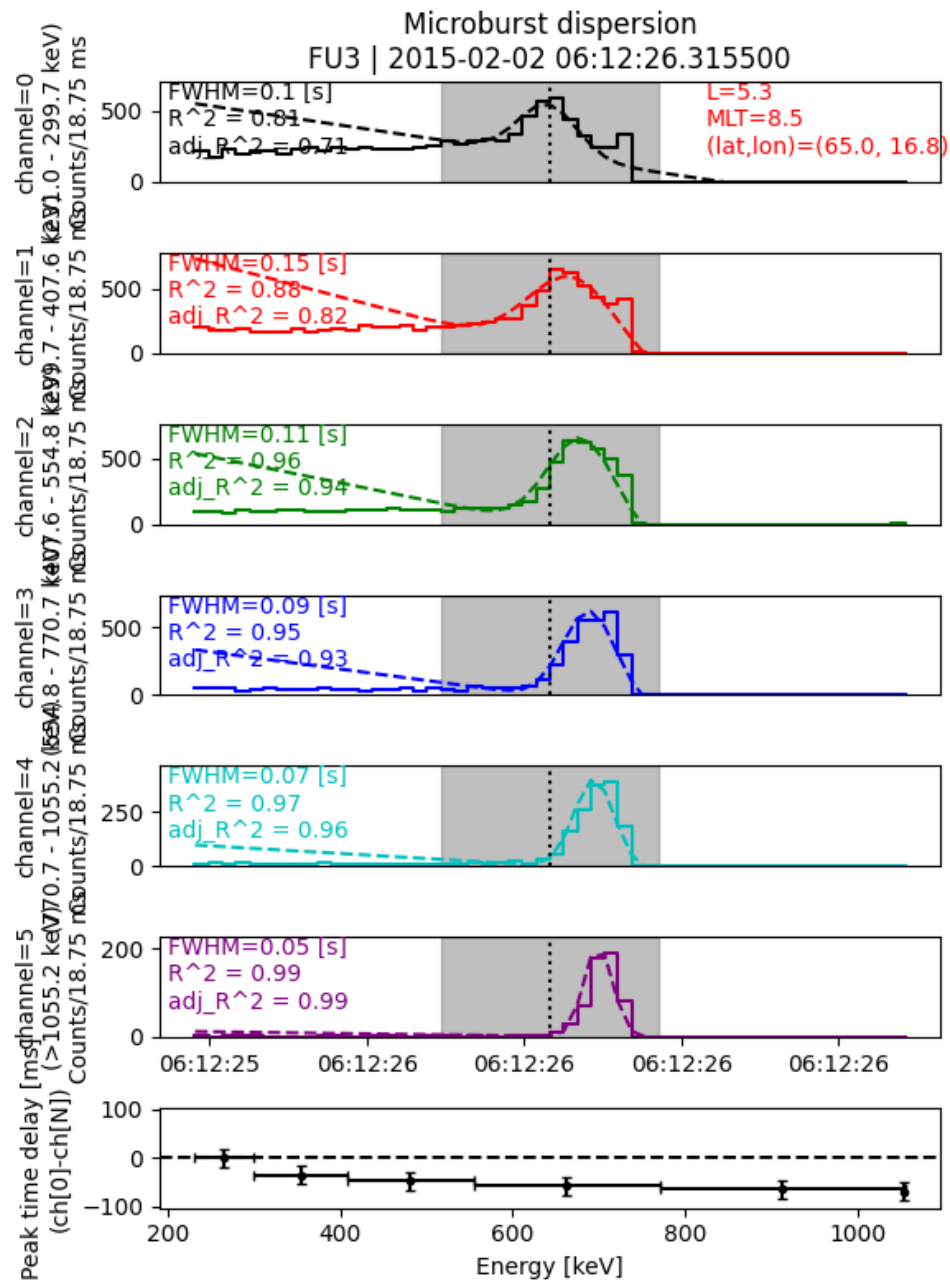
Location

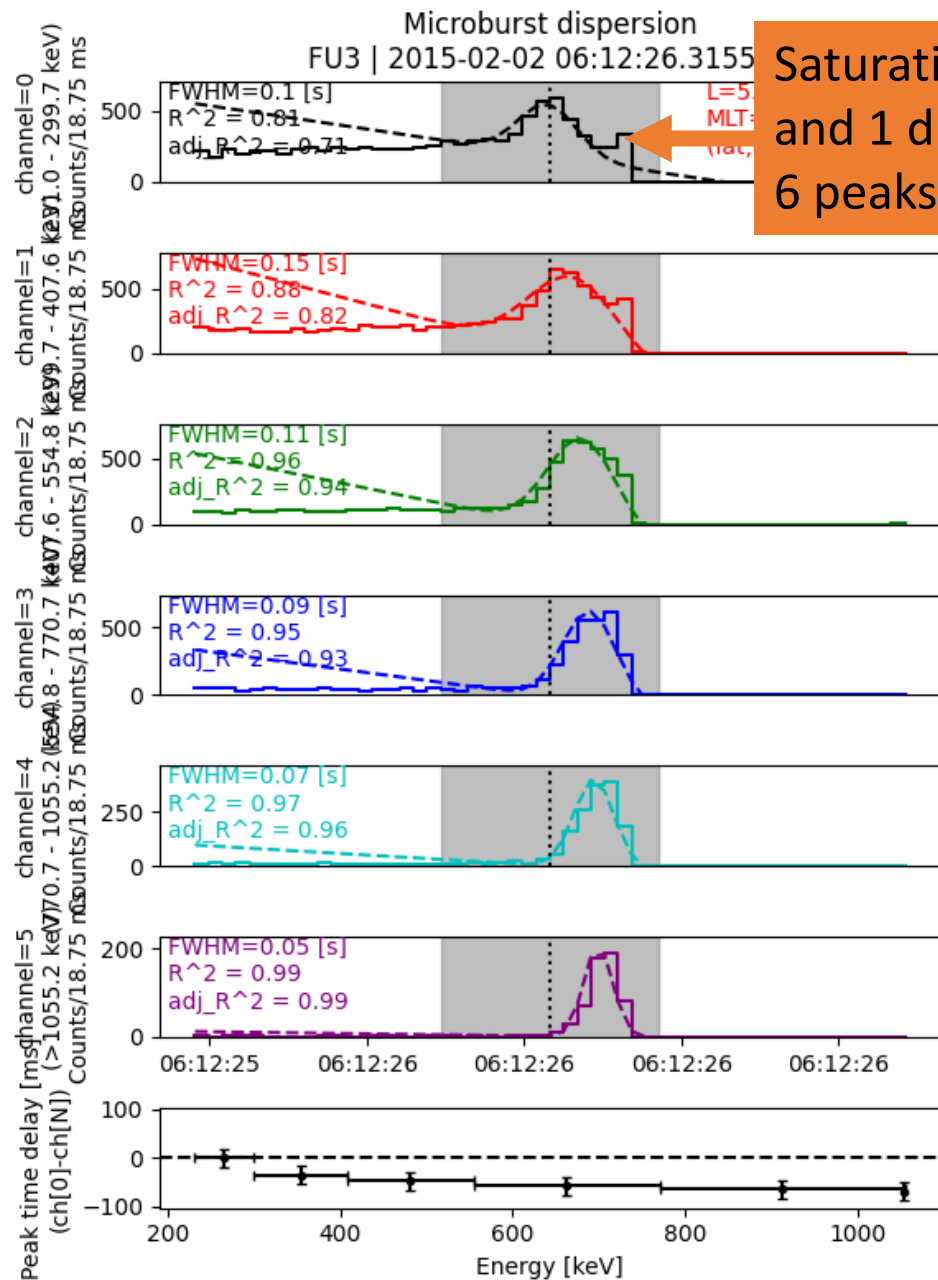
HiRes data shown in solid and Gaussian fit shown in dashed

Gray rectangle is the fit time range and black vertical dotted line is at channel 0's  $t_0$

- points: microburst  $t_0$   
- X-errors are energy channel widths  
- Y-errors is the HiRes cadence







Saturation? Channels 0 and 1 dip right as channel 6 peaks.

