

Charge Injection System (CIS) Fitting Problem

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Introduction

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Chi-Squared Distributions (Example Run 440463)

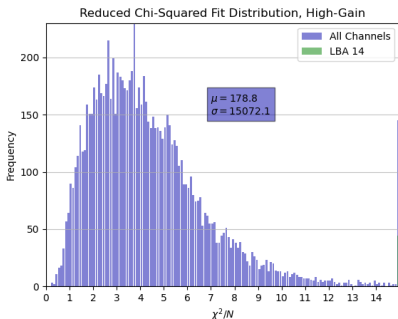


Figure: Distribution of reduced chi-squared values for linear fits that determine CIS constant (HG)

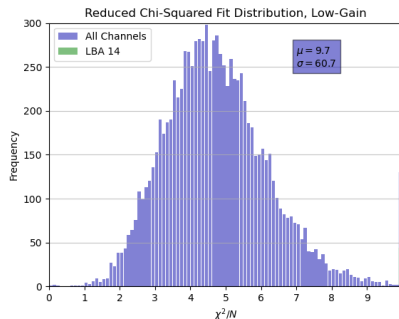
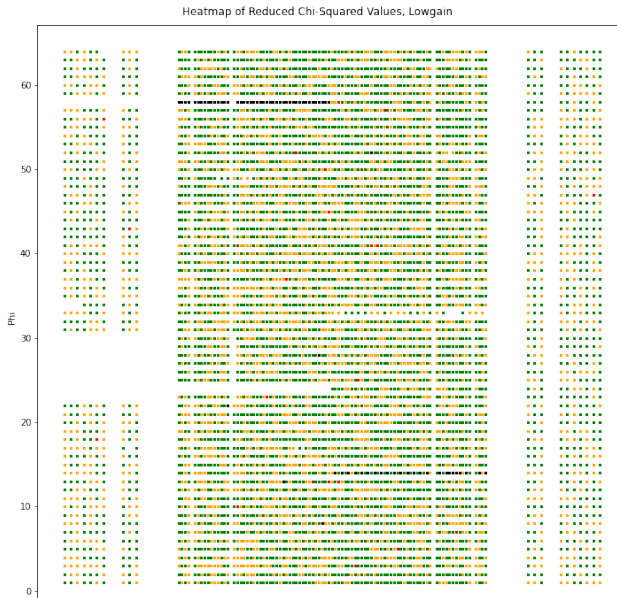


Figure: Distribution of reduced chi-squared values for linear fits that determine CIS constant (LG)

Map of Fit Values



Good Fit Example (LBC14, Run 440463)

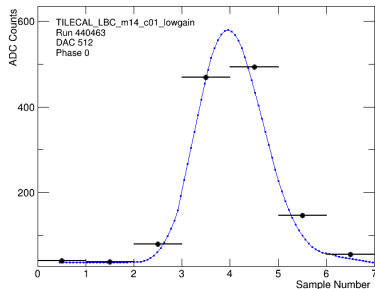


Figure: Sampled analogue pulse

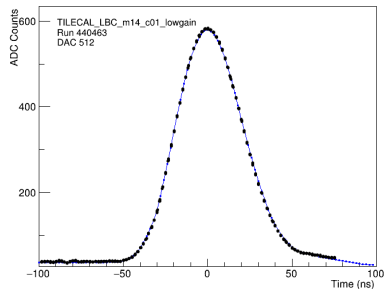


Figure: Analogue pulse with timing

Good Fit Example

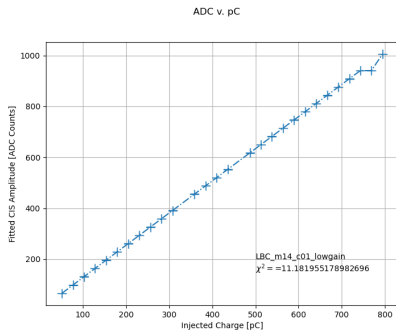


Figure: Replotted linear fit ADC v. pC

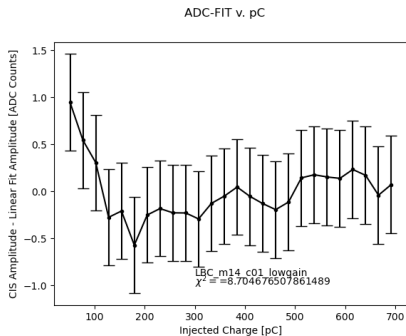


Figure: Fit-Data showing distribution of fit residuals

Bad Fit Example (LBC14, Run 440463)

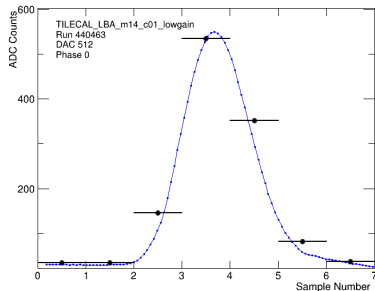


Figure: Sampled analogue pulse

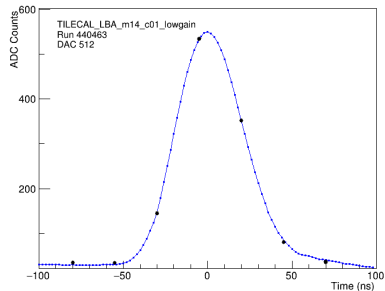


Figure: Analogue pulse with timing

Bad Fit Example

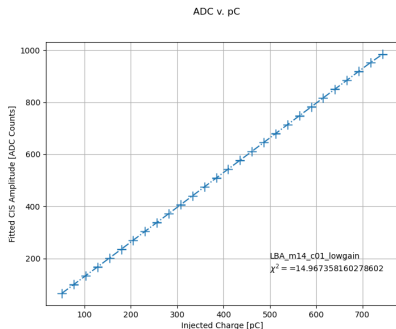


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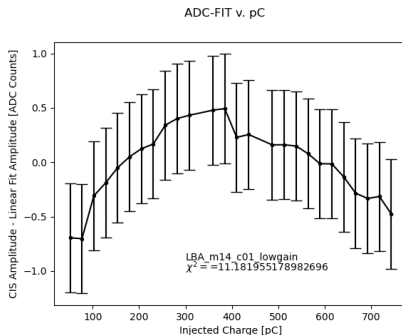


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