**Week 4 Monday 10th Feb**

**Build**

The figures below summarize the experimental results over trials. LHS distribution of central wavelengths around the actual wavelength; RHS distribution of peak intensities

A picture containing text

Description automatically generated

The two distributions are uncorrelated with each other

A screenshot of a cell phone

Description automatically generated

**Build**

Remove baseline + remove outlier + interpolate + smooth. Without removing outliers, however, the interpolated and smoothed data looks like

* **Baseline**

The baseline should not be removed using the dark frame count, as this would only remove the dark current but not the bright current and any current induced by the temperature variation in the presence of the light [verify this].

The baseline can be removed using four algorithms: remove mode, median filter, baseline package and highpass filter. The first method which is removing the mode is preferred [verify this] by inspection.

|  |  |
| --- | --- |
| A picture containing object  Description automatically generated | A close up of a mans face  Description automatically generated |

**Week 5 Monday 17th Feb**

TODO: Find the optimal exposure time for the spectrometer – what is the optimal strategy for that?