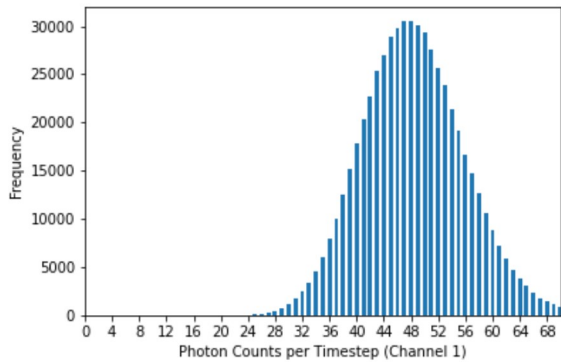# Photon Statistics for Randomness Trial

This report covers basic statistics on photon arrival times, photon counts, and coincidences. The settings used for this trial are: {'clock rate (hz)': 800.0, 'sample integration time (s)': 0.00125}. The following report was generated at: 20221011-200031

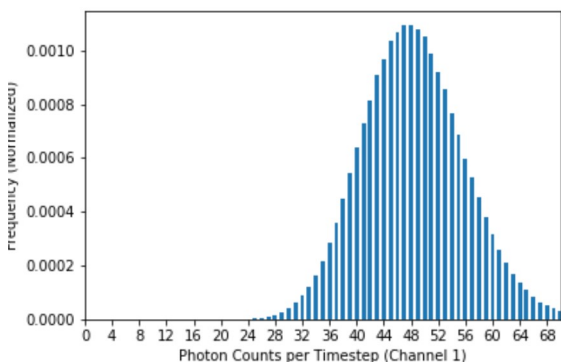## Unnormalized Counts Across Integration Times

The above graph displays the distribution of counts that occur for each integration timestep (0.00125)
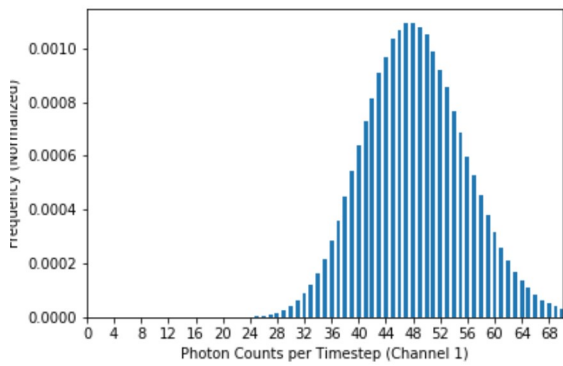
Unnormalized Counts Across Integration Times
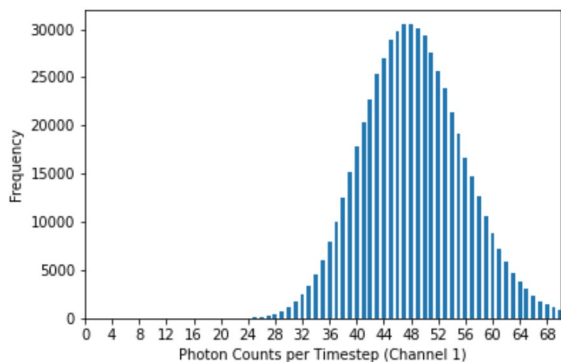
The above graph displays the distribution of counts that occur for each integration timestep (0.00125)

Normalized Counts Across Integration Times

The above graph displays the distribution of counts that occur for each integration timestep (0.00125) normalized between 0 and 1

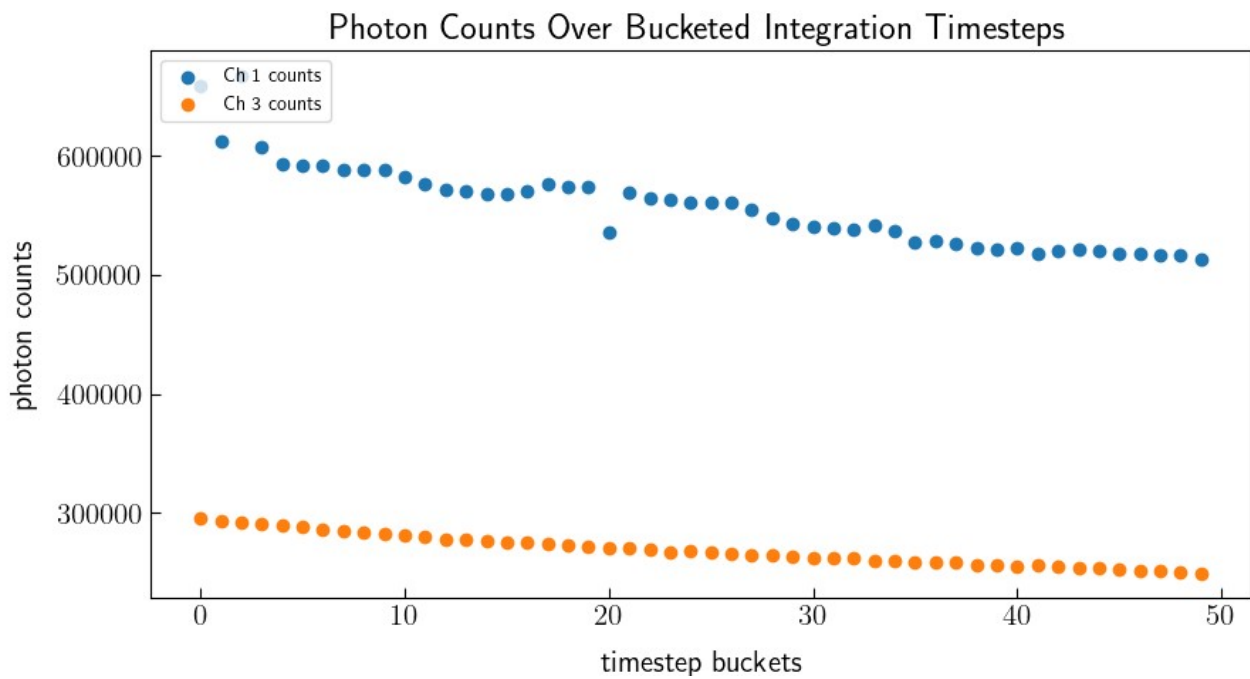## Normalized Counts Across Integration Times

The above graph displays the distribution of counts that occur for each integration timestep (0.00125) normalized between 0 and 1
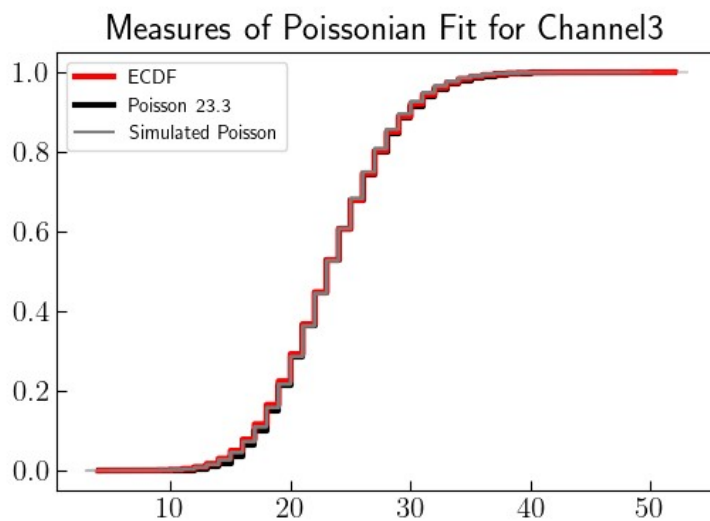
Photon Counts Over all Integration Timesteps
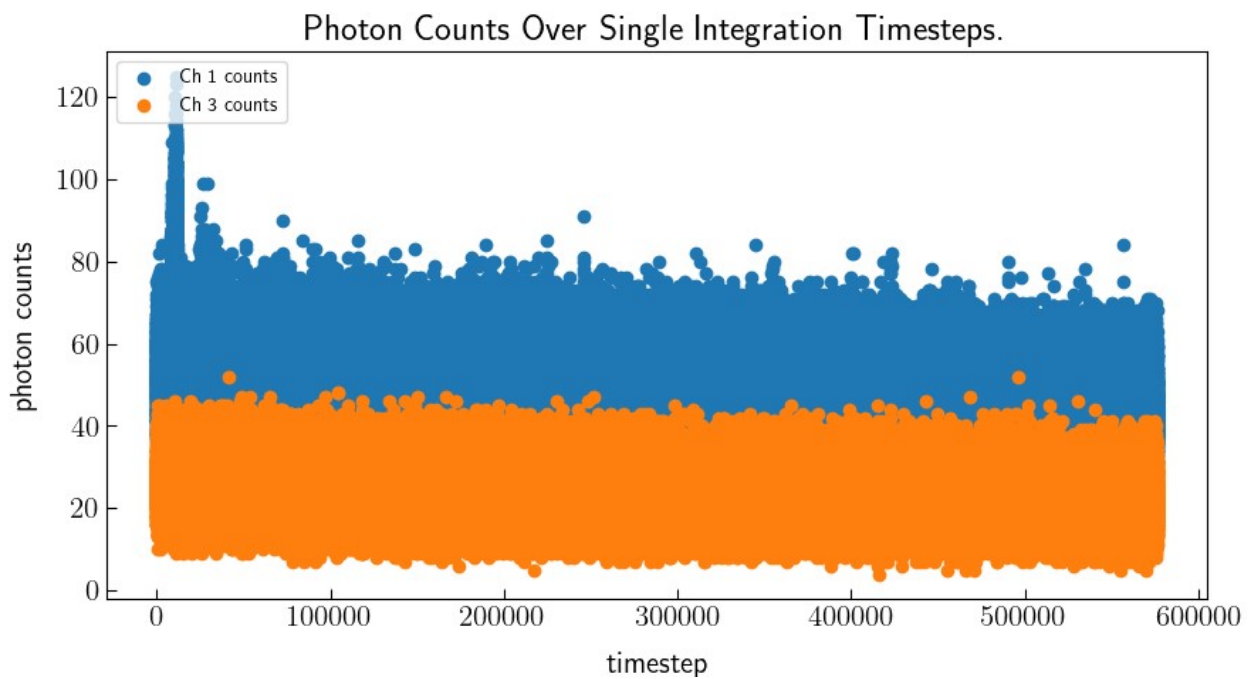
The amount of photons we count at each integration timestep

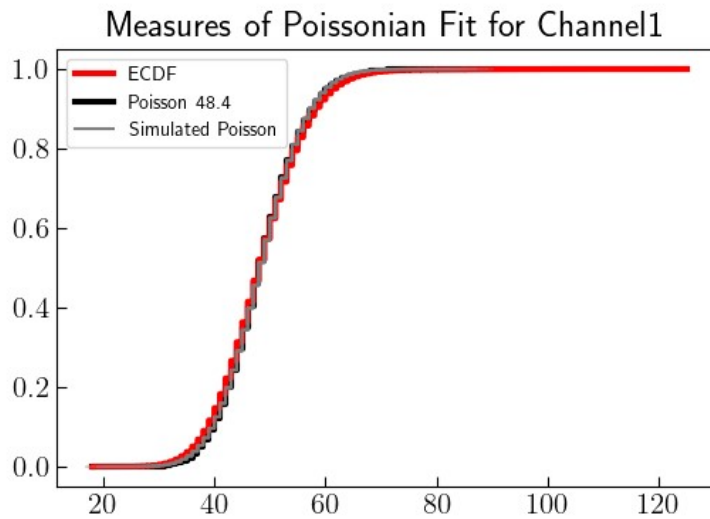## Photon Counts Over all Bucketed Integration Timesteps

The total amount of photons we count at a summation of integration timesteps
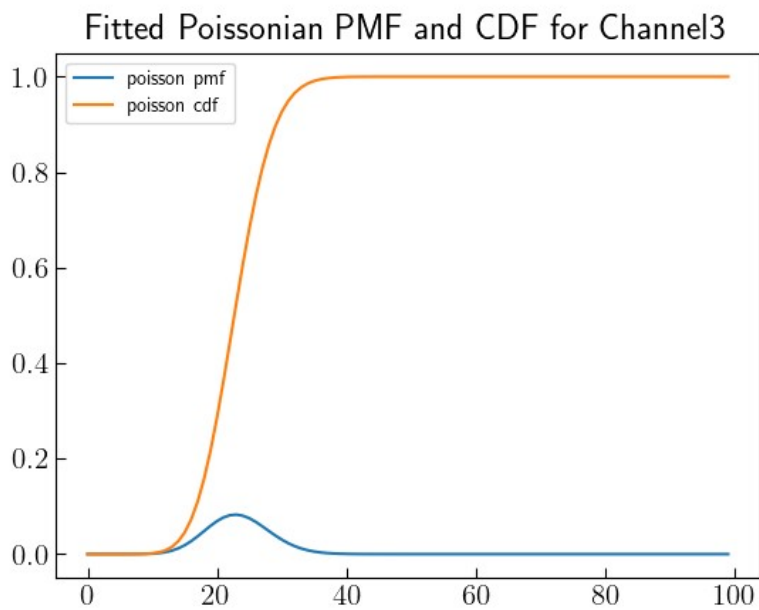
ECDF Tests for the given channel

A graphical measure of how close our counts are to a Poissonian distribution
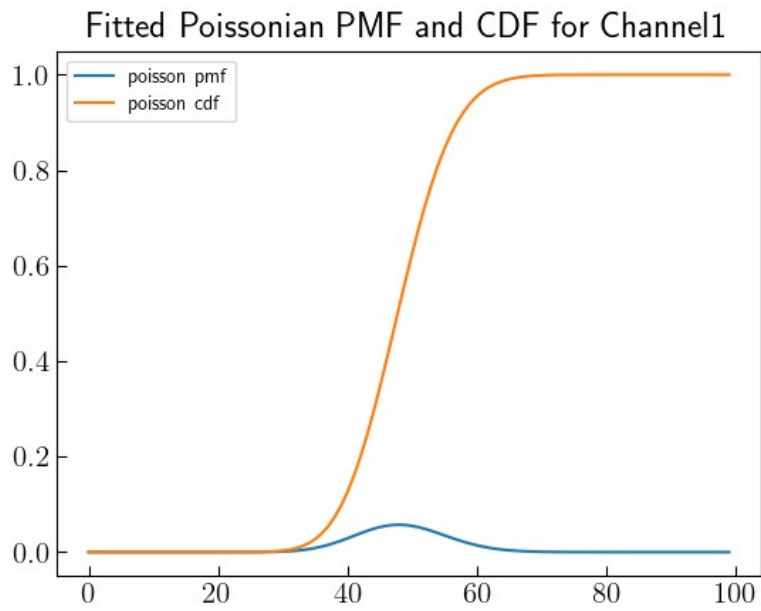
ECDF Tests for the given channel

A graphical measure of how close our counts are to a Poissonian distribution

Fitted Poissonian PMF and CDF for the given channel

The probability mass function and cumulative distribution function for a Poissonian fitted to the data for the given channel

Fitted Poissonian PMF and CDF for the given channel

The probability mass function and cumulative distribution function for a Poissonian fitted to the data for the given channel