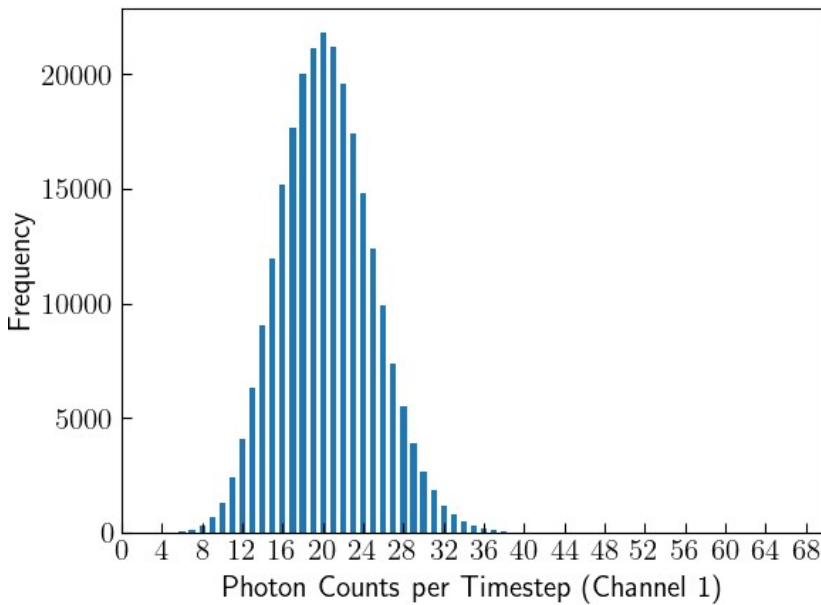# Photon Statistics for Randomness Trial: Laser Robustness Tests

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: 20221011-202823

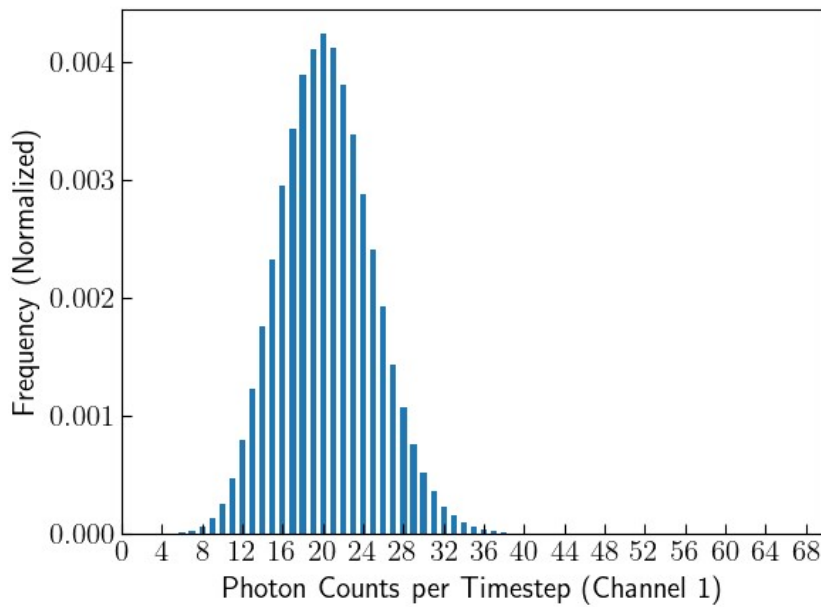## Unnormalized Counts Across Integration Times

The above graph displays the distribution of counts that occur for each integration timestep (0.00125)

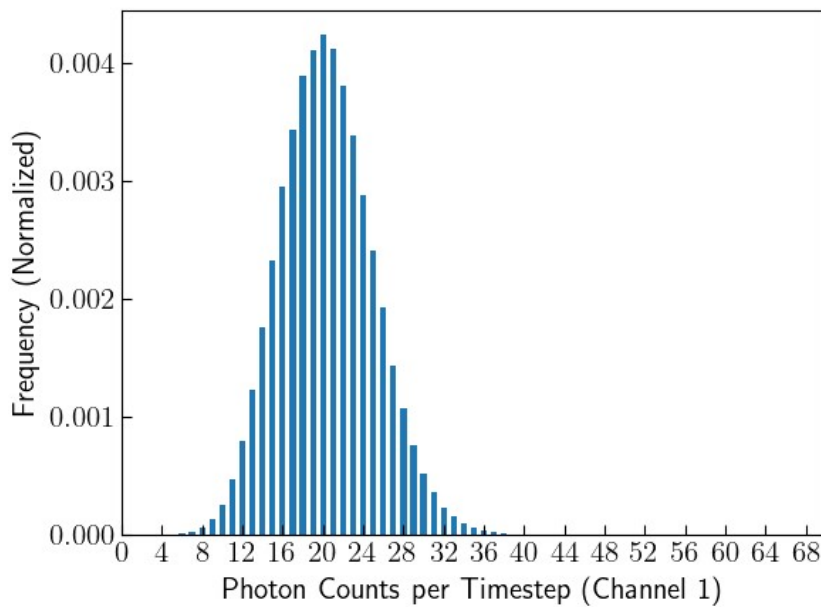## Unnormalized Counts Across Integration Times
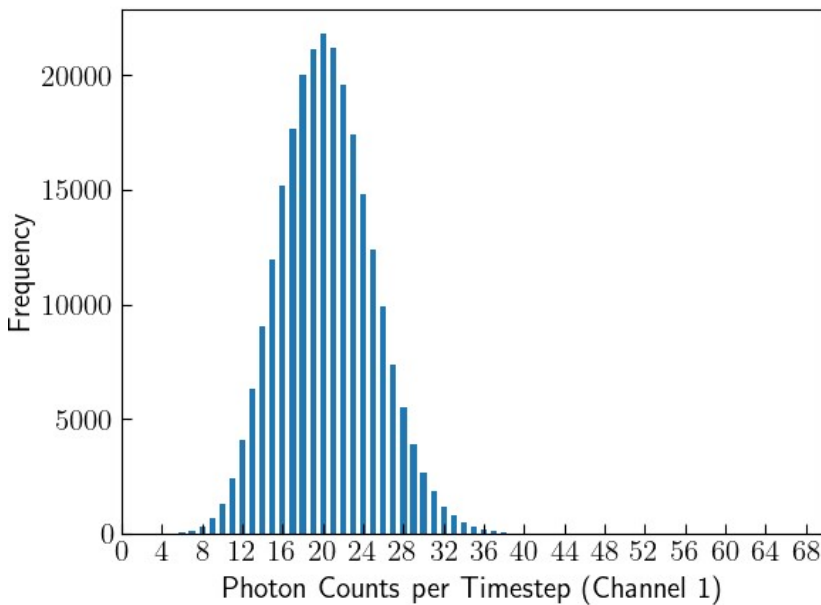
The above graph displays the distribution of counts that occur for each integration timestep (0.00125)

## 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

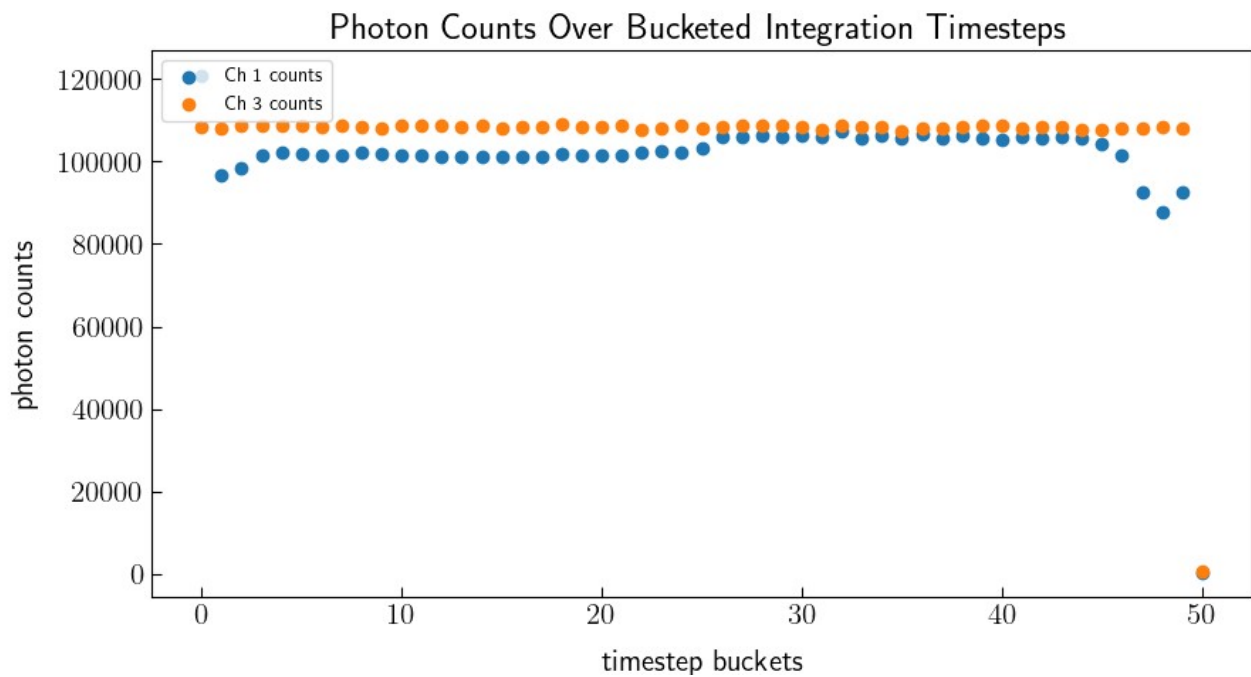## Normalized Counts Across Integration Times

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

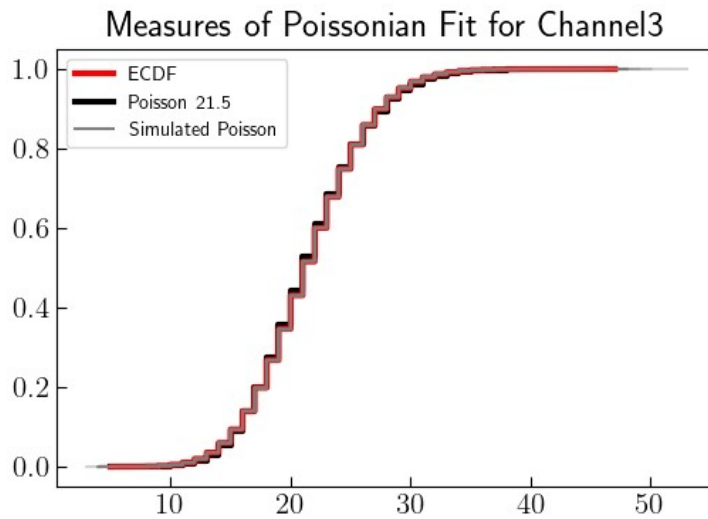## Photon Counts Over all Integration Timesteps
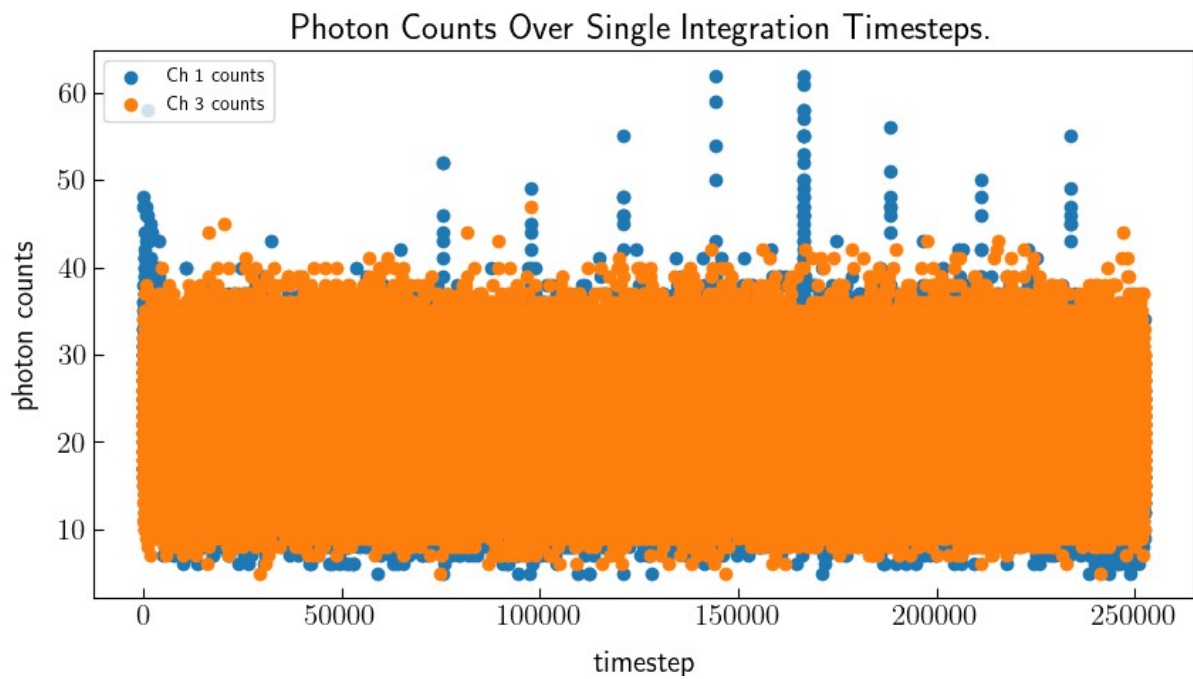
The amount of photons we count at each integration timestep

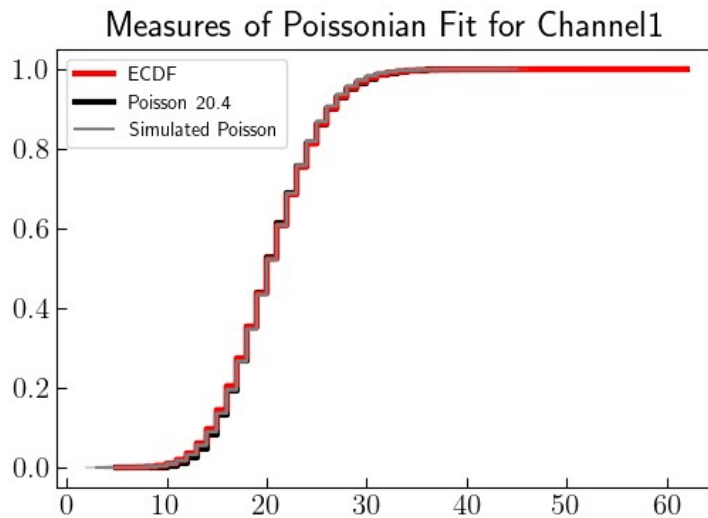## Photon Counts Over all Bucketed Integration Timesteps

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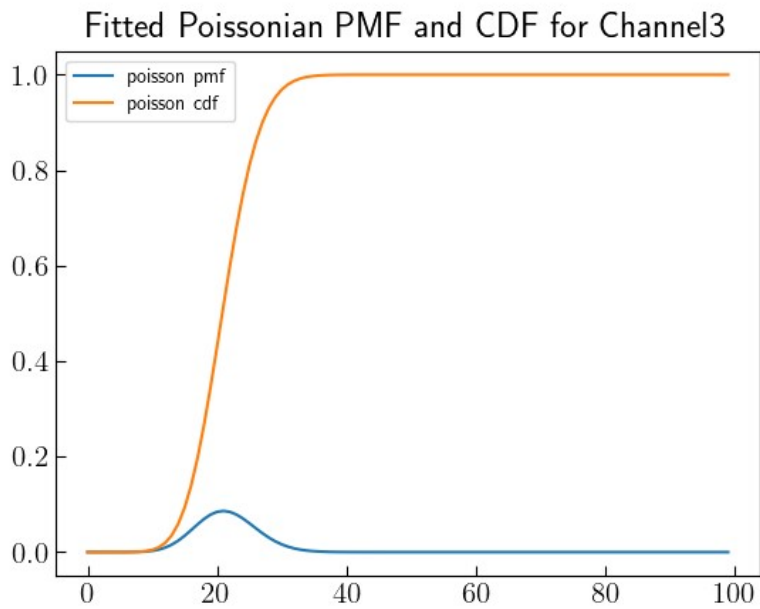
ECDF Tests for the given channel

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

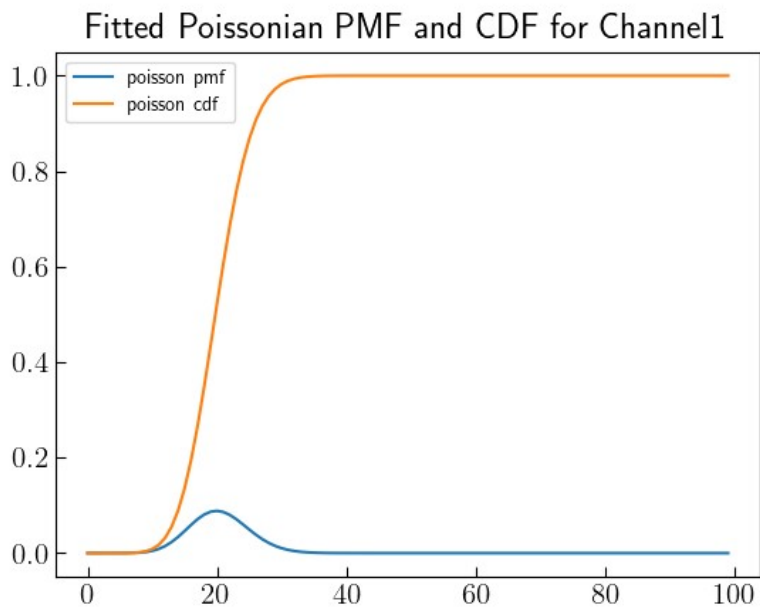## ECDF Tests for the given channel

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