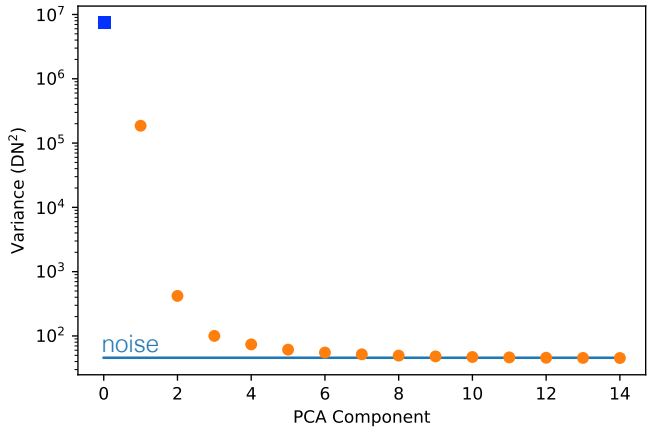

Fig 3 This plot of eigenvalue vs PCA component (λ index) shows that essentially all of the meaningful information is contained in $\lambda_0 - \lambda_5$. The symbol for λ_0 is different because it is dominated by the instrument signature (detector bias pattern and hot pixels *etc.*). Excluding $>3.5\sigma$ statistical outliers, the noise is essentially Gauss-normal for λ_6 and higher (see Appendix B). For reference, WFC3's conversion gain is about, $g_c \sim 2.25\ e^-\ \mathrm{DN}^{-1}$. According to the WFC3 Instrument Handbook, the read noise is between $20.2 - 21.4\ e^-$ per correlated double sample.[7] The read noise per sample is therefore about $15\ e^-$, which corresponds to the variance of the blue noise line that is overlaid on the plot.