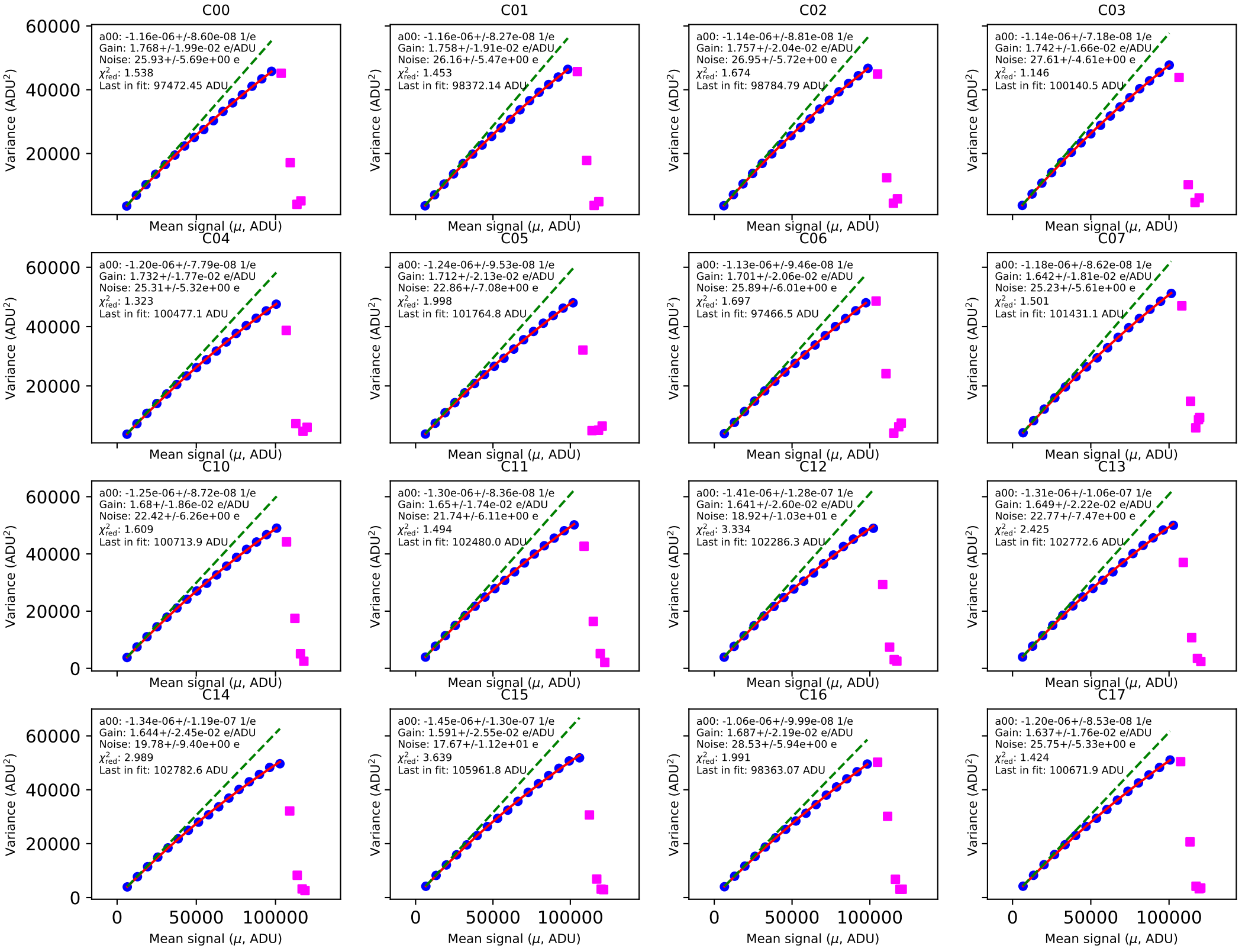
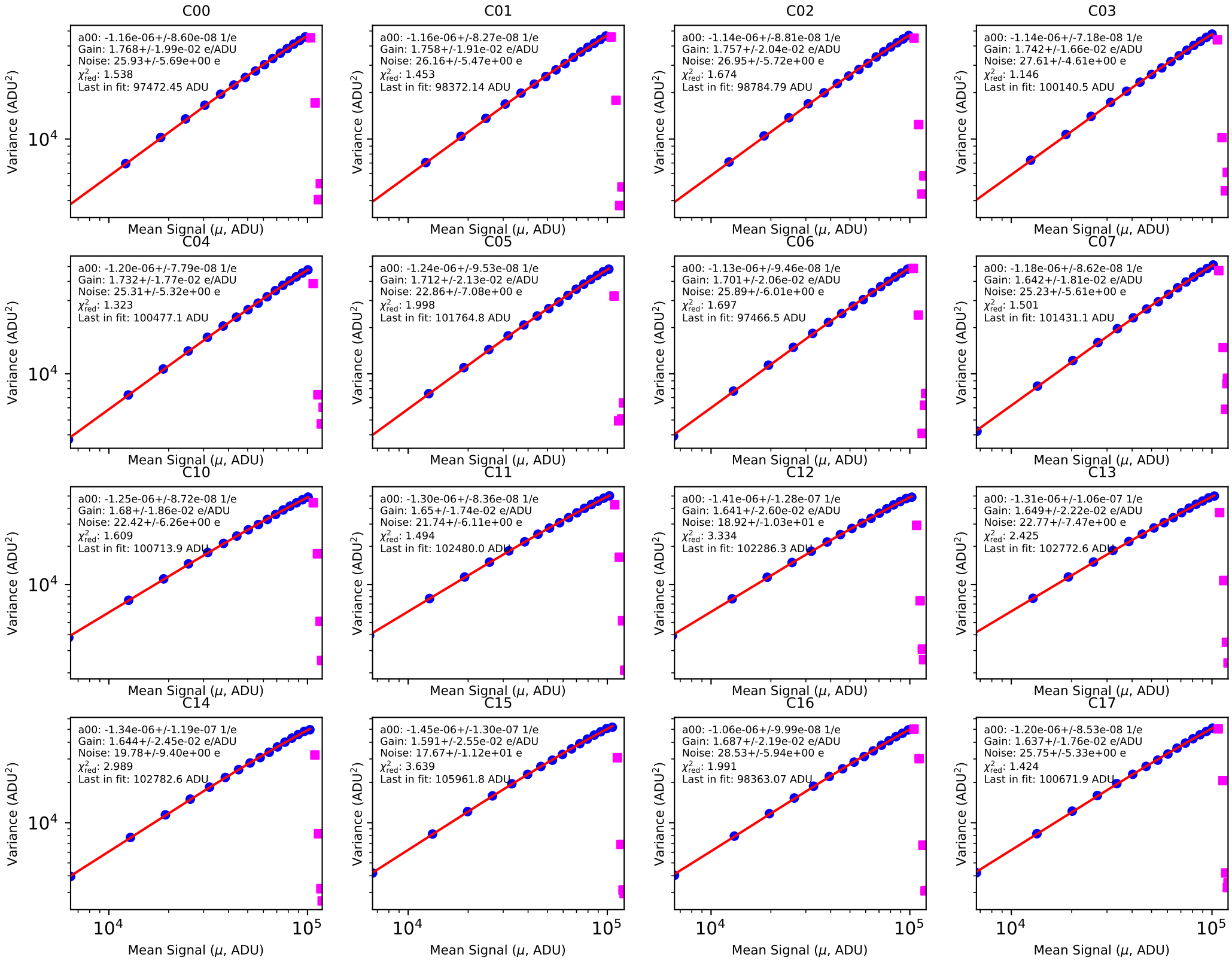
PTC

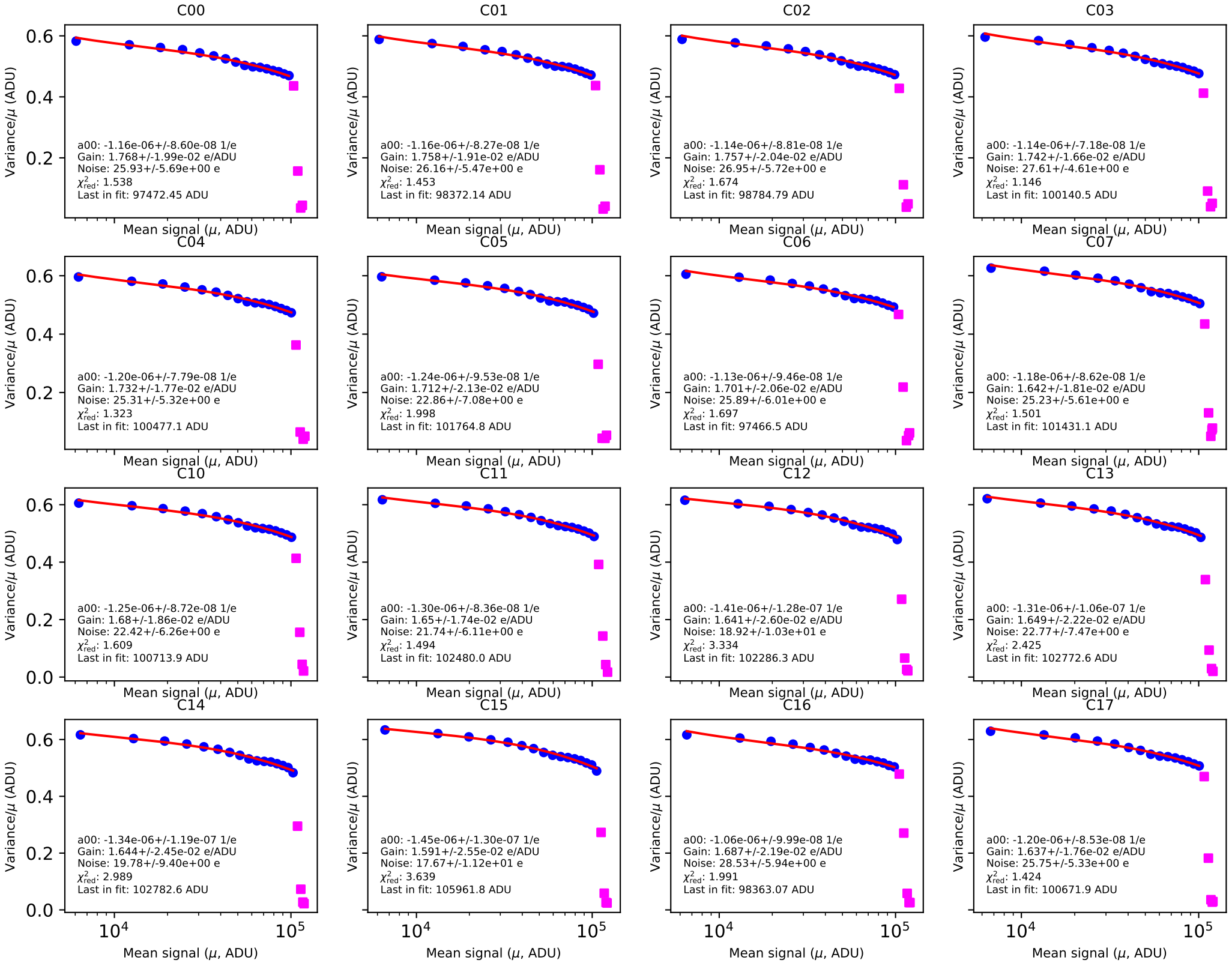
Fit: $\mathrm{Var} = \frac{1}{2g^2 a_{00}}(\exp(2a_{00}\mu g) - 1) + \frac{n_{00}}{g^2}$



PTC (log-log)


C00
a00: -1.16e-06+/-8.60e-08 1/e
Gain: 1.768+/-1.99e-02 e/ADU
Noise: 25.93+/-5.69e+00 e
χ^2_{red}: 1.538
Last in fit: 97472.45 ADU
C01
a00: -1.16e-06+/-8.27e-08 1/e
Gain: 1.758+/-1.91e-02 e/ADU
Noise: 26.16+/-5.47e+00 e
χ^2_{red}: 1.453
Last in fit: 98372.14 ADU
C02
a00: -1.14e-06+/-8.81e-08 1/e
Gain: 1.757+/-2.04e-02 e/ADU
Noise: 26.95+/-5.72e+00 e
χ^2_{red}: 1.674
Last in fit: 98784.79 ADU
C03
a00: -1.14e-06+/-7.18e-08 1/e
Gain: 1.742+/-1.66e-02 e/ADU
Noise: 27.61+/-4.61e+00 e
χ^2_{red}: 1.146
Last in fit: 100140.5 ADU
C04
a00: -1.20e-06+/-7.79e-08 1/e
Gain: 1.732+/-1.77e-02 e/ADU
Noise: 25.31+/-5.32e+00 e
χ^2_{red}: 1.323
Last in fit: 100477.1 ADU
C05
a00: -1.24e-06+/-9.53e-08 1/e
Gain: 1.712+/-2.13e-02 e/ADU
Noise: 22.86+/-7.08e+00 e
χ^2_{red}: 1.998
Last in fit: 101764.8 ADU
C06
a00: -1.13e-06+/-9.46e-08 1/e
Gain: 1.701+/-2.06e-02 e/ADU
Noise: 25.89+/-6.01e+00 e
χ^2_{red}: 1.697
Last in fit: 97466.5 ADU
C07
a00: -1.18e-06+/-8.62e-08 1/e
Gain: 1.642+/-1.81e-02 e/ADU
Noise: 25.23+/-5.61e+00 e
χ^2_{red}: 1.501
Last in fit: 101431.1 ADU
C10
a00: -1.25e-06+/-8.72e-08 1/e
Gain: 1.68+/-1.86e-02 e/ADU
Noise: 22.42+/-6.26e+00 e
χ^2_{red}: 1.609
Last in fit: 100713.9 ADU
C11
a00: -1.30e-06+/-8.36e-08 1/e
Gain: 1.65+/-1.74e-02 e/ADU
Noise: 21.74+/-6.11e+00 e
χ^2_{red}: 1.494
Last in fit: 102480.0 ADU
C12
a00: -1.41e-06+/-1.28e-07 1/e
Gain: 1.641+/-2.60e-02 e/ADU
Noise: 18.92+/-1.03e+01 e
χ^2_{red}: 3.334
Last in fit: 102286.3 ADU
C13
a00: -1.31e-06+/-1.06e-07 1/e
Gain: 1.649+/-2.22e-02 e/ADU
Noise: 22.77+/-7.47e+00 e
χ^2_{red}: 2.425
Last in fit: 102772.6 ADU
C14
a00: -1.34e-06+/-1.19e-07 1/e
Gain: 1.644+/-2.45e-02 e/ADU
Noise: 19.78+/-9.40e+00 e
χ^2_{red}: 2.989
Last in fit: 102782.6 ADU
C15
a00: -1.45e-06+/-1.30e-07 1/e
Gain: 1.591+/-2.55e-02 e/ADU
Noise: 17.67+/-1.12e+01 e
χ^2_{red}: 3.639
Last in fit: 105961.8 ADU
C16
a00: -1.06e-06+/-9.99e-08 1/e
Gain: 1.687+/-2.19e-02 e/ADU
Noise: 28.53+/-5.94e+00 e
χ^2_{red}: 1.991
Last in fit: 98363.07 ADU
C17
a00: -1.20e-06+/-8.53e-08 1/e
Gain: 1.637+/-1.76e-02 e/ADU
Noise: 25.75+/-5.33e+00 e
χ^2_{red}: 1.424
Last in fit: 100671.9 ADU
Variance (ADU²)
Mean Signal (μ, ADU)
10^4
10^5

Var/μ


C00
a00: -1.16e-06+/-8.60e-08 1/e
Gain: 1.768+/-1.99e-02 e/ADU
Noise: 25.93+/-5.69e+00 e
χ^2_{red}: 1.538
Last in fit: 97472.45 ADU
C01
a00: -1.16e-06+/-8.27e-08 1/e
Gain: 1.758+/-1.91e-02 e/ADU
Noise: 26.16+/-5.47e+00 e
χ^2_{red}: 1.453
Last in fit: 98372.14 ADU
C02
a00: -1.14e-06+/-8.81e-08 1/e
Gain: 1.757+/-2.04e-02 e/ADU
Noise: 26.95+/-5.72e+00 e
χ^2_{red}: 1.674
Last in fit: 98784.79 ADU
C03
a00: -1.14e-06+/-7.18e-08 1/e
Gain: 1.742+/-1.66e-02 e/ADU
Noise: 27.61+/-4.61e+00 e
χ^2_{red}: 1.146
Last in fit: 100140.5 ADU
C04
a00: -1.20e-06+/-7.79e-08 1/e
Gain: 1.732+/-1.77e-02 e/ADU
Noise: 25.31+/-5.32e+00 e
χ^2_{red}: 1.323
Last in fit: 100477.1 ADU
C05
a00: -1.24e-06+/-9.53e-08 1/e
Gain: 1.712+/-2.13e-02 e/ADU
Noise: 22.86+/-7.08e+00 e
χ^2_{red}: 1.998
Last in fit: 101764.8 ADU
C06
a00: -1.13e-06+/-9.46e-08 1/e
Gain: 1.701+/-2.06e-02 e/ADU
Noise: 25.89+/-6.01e+00 e
χ^2_{red}: 1.697
Last in fit: 97466.5 ADU
C07
a00: -1.18e-06+/-8.62e-08 1/e
Gain: 1.642+/-1.81e-02 e/ADU
Noise: 25.23+/-5.61e+00 e
χ^2_{red}: 1.501
Last in fit: 101431.1 ADU
C10
a00: -1.25e-06+/-8.72e-08 1/e
Gain: 1.68+/-1.86e-02 e/ADU
Noise: 22.42+/-6.26e+00 e
χ^2_{red}: 1.609
Last in fit: 100713.9 ADU
C11
a00: -1.30e-06+/-8.36e-08 1/e
Gain: 1.65+/-1.74e-02 e/ADU
Noise: 21.74+/-6.11e+00 e
χ^2_{red}: 1.494
Last in fit: 102480.0 ADU
C12
a00: -1.41e-06+/-1.28e-07 1/e
Gain: 1.641+/-2.60e-02 e/ADU
Noise: 18.92+/-1.03e+01 e
χ^2_{red}: 3.334
Last in fit: 102286.3 ADU
C13
a00: -1.31e-06+/-1.06e-07 1/e
Gain: 1.649+/-2.22e-02 e/ADU
Noise: 22.77+/-7.47e+00 e
χ^2_{red}: 2.425
Last in fit: 102772.6 ADU
C14
a00: -1.34e-06+/-1.19e-07 1/e
Gain: 1.644+/-2.45e-02 e/ADU
Noise: 19.78+/-9.40e+00 e
χ^2_{red}: 2.989
Last in fit: 102782.6 ADU
C15
a00: -1.45e-06+/-1.30e-07 1/e
Gain: 1.591+/-2.55e-02 e/ADU
Noise: 17.67+/-1.12e+01 e
χ^2_{red}: 3.639
Last in fit: 105961.8 ADU
C16
a00: -1.06e-06+/-9.99e-08 1/e
Gain: 1.687+/-2.19e-02 e/ADU
Noise: 28.53+/-5.94e+00 e
χ^2_{red}: 1.991
Last in fit: 98363.07 ADU
C17
a00: -1.20e-06+/-8.53e-08 1/e
Gain: 1.637+/-1.76e-02 e/ADU
Noise: 25.75+/-5.33e+00 e
χ^2_{red}: 1.424
Last in fit: 100671.9 ADU
Variance/μ (ADU)
Mean signal (μ, ADU)
0.0
0.2
0.4
0.6
10^4
10^5