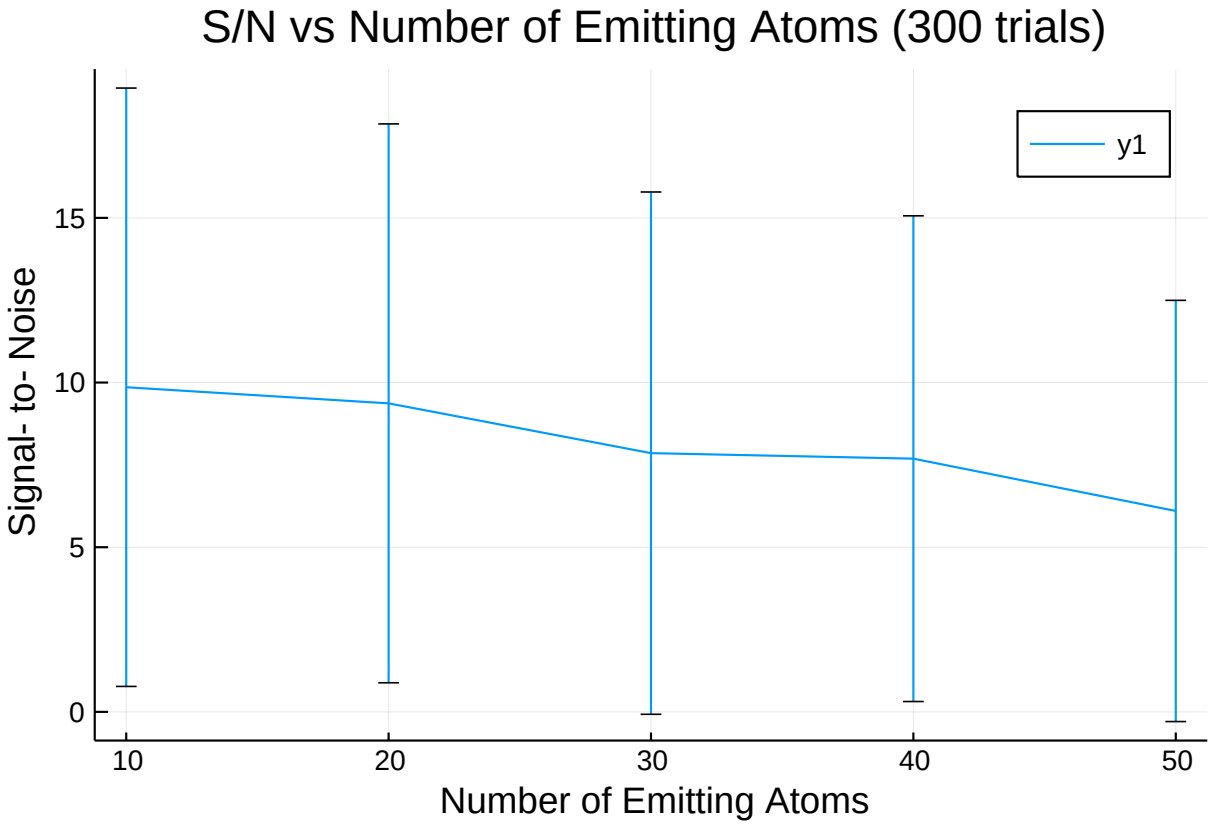
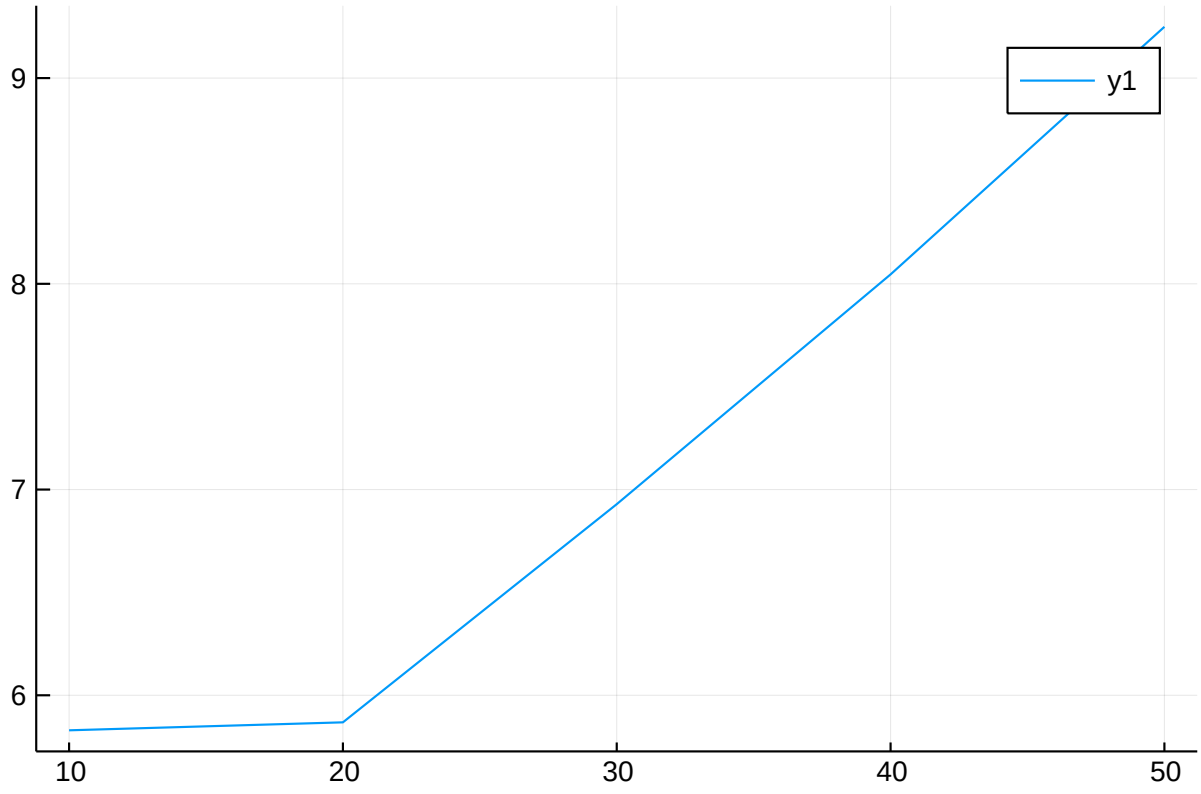
1 Signal to Noise Ratio

The signal-to-noise ratio calculated in the simulation is a rough estimate. Since the peaks in the Fourier transform seem to be consistently narrow, an arbitrary window is chosen to separate the signal peak from the noise. Signal-to-noise is then calculated by taking the maximum inside each peak window, shifting it downwards by the mean of the noise part, then dividing the resulting value by the variance of the noise part.

2 Number of Emitting Atoms

Description	Value(s)
mean photon count rate (GHz)	2.0e6
number of atoms	[10, 20, 30, 40, 50]
randomize each trial	true
dead time (ns)	0.0
resolution (ns)	0.01
line frequencies (GHz)	[456810, 456813]
measurement duration (ns)	20.0
trials	300




y1
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