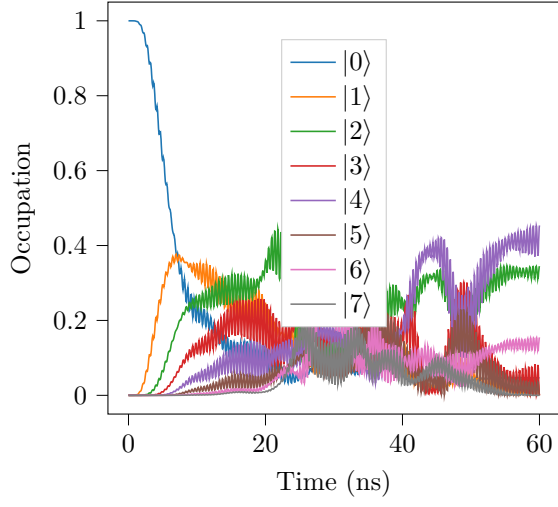# 1 Appendix

1.1 Jupyter Notebooks and Optimization Data
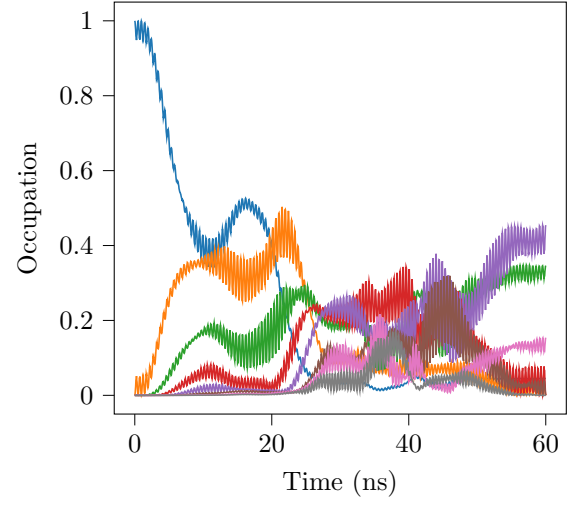
To ease the reproducibility of the experiments the Jupyter notebooks used in this thesis and majority of resulting data are available at `https://github.com/JohanWinther/cat-state-encoding`. Although the project
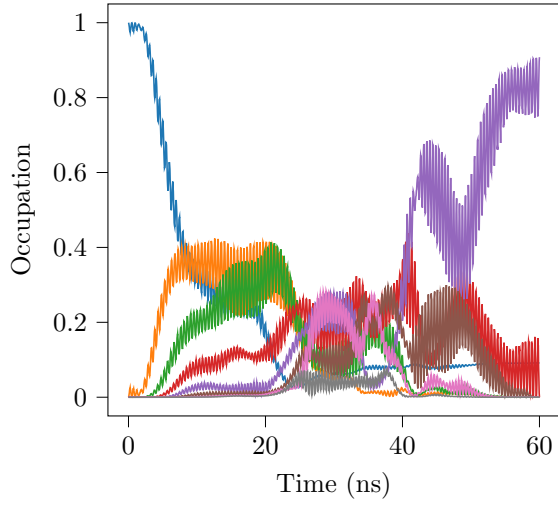
1.2 Cat code resonator occupation

The occupation dynamics for the resonator are plotted in fig. 1.1. Although they are hard to read and no conclusions are drawn from them in the thesis they are included in the appendix as reference for further analysis.
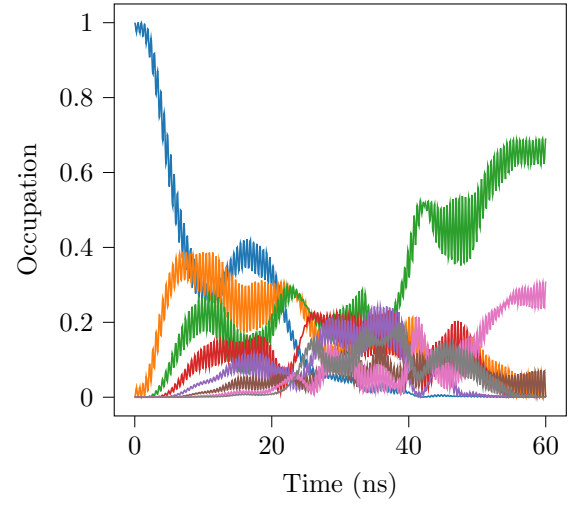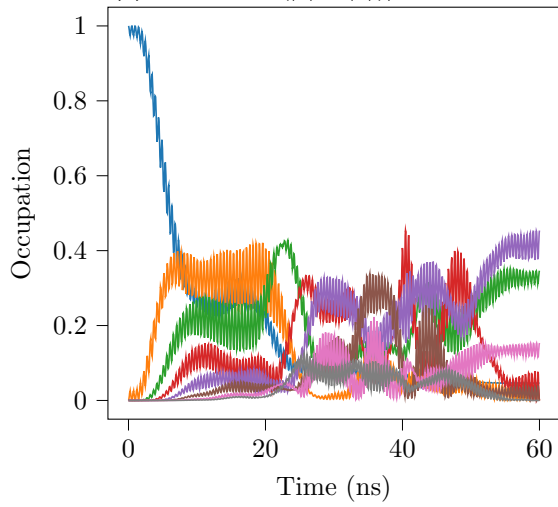
(a) Transfer of $|0\rangle$
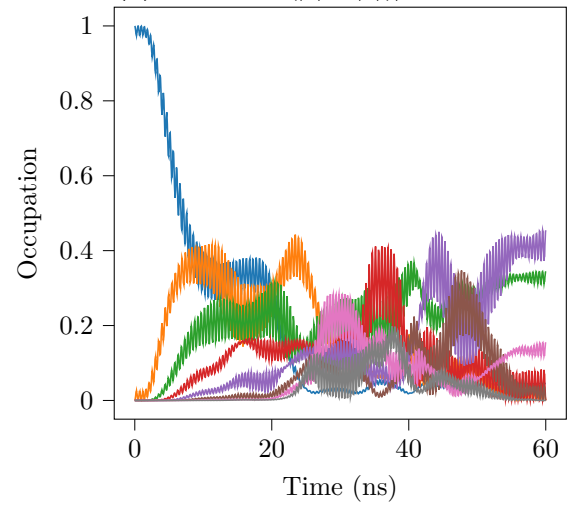
(b) Transfer of $|1\rangle$

(c) Transfer of $(|0\rangle + |1\rangle)/\sqrt{2}$

(d) Transfer of $(|0\rangle - |1\rangle)/\sqrt{2}$

(e) Transfer of $(|0\rangle + i|1\rangle)/\sqrt{2}$

(f) Transfer of $(|0\rangle - i|1\rangle)/\sqrt{2}$

Figure 1.1: Resonator level occupation over time for the 6 state transfers.