

Study Plan for Thesis

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1 Chapter 1

2 Chapter 2

2.1 Model Hamiltonian

- HDvV Hamiltonian
 - Spin Hamiltonian
 - Focus on Zeeman
 - Study other stuff
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3 Chapter 3

4 Chapter 4

- Mention how this study demonstrated that computational chemistry is about finding balance between accuracy and computational cost.

4.1 BS DFT

4.2 CASSCF

- Pipek-Mezey localization scheme for double-shell orbs.

4.3 DDCI

- know the difference between DDCI1, DDCI2 and DDCI3.
- read about T_{sel} parameter.

4.4 BS Coupled Cluster

- Need to read on the CC ansatz and how it works.
 - Know the difference between CCSD and CCSD(T).
 - Read local methods and how they work.
 - difference between LPNO and DLPNO.
 - difference between all the parameters in LPNO approx: T_{CutPNO} , $T_{CutPair}$ and the 3rd one. (see ORCA docs)
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5 Chapter 5

6 Chapter 6
