

Worksheet on:

Introduction to topological superconductivity

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This worksheet follow directly from the journal notes of the same name. These can be found at my personal website at <https://franciscolobo1880.github.io/>. The majority of the exercises presented herein correspond to proves and results briefly mentioned in the main text, which were not elaborated upon in detail in order to maintain a more fluid reading experience. As supplementary material, there is a GitHub repository at <https://github.com/franciscolobo1880/topoSC>. There can check the numerical solutions of some of the exercises. This is done in *Julia* using the *Quantica.jl* package by Pablo San-Jose, my PhD advisor. To get started on this check *Quantica.jl*'s repository and it's tutorial at <https://github.com/pablosanjose/Quantica.jl>.

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I. OVERVIEW OF FOUNDATIONAL SUPERCONDUCTIVITY THEORIES

II. UNCONVENTIONAL SUPERCONDUCTIVITY THEORIES

III. INTRODUCTION TO TOPOLOGICAL SUPERCONDUCTIVITY