# OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY

### PhD Thesis Proposal

## LATEX thesis (proposal) template

by

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## Abstract

The abstract must fit in one page.

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### Chapter 1

### Guidelines on Format and Content

You will find the most recent version of the guidelines for the thesis proposal in Section 5 of the Graduate School Policies: https://www.oist.jp/education/policies-regulations/gs-policies.

In case these requirements change, the exact version of the formatting requirements to which this template adheres can be found here: https://web.archive.org/web/20250826015151/https://www.oist.jp/education/policies-regulations/gs-policies.

All requirements for page size, margins, fonts, and line spacing are built-in in this template. Unless you are familiar with LaTeX, it is not recommended to mess around with the settings that aren't clearly marked as something you can change or toggle.

For the bibliography, we recommend using BibTeX or BibLaTeX and through the file Preamble/Thesis\_bibliography.bib and referencing citations like this [1–3].

### Chapter 2

### How to Use the Template

This is a practical guide into how to use this template, by explaining the role of the different folders and files. The basic structure of this folder should look like:

```
|-- Thesis_proposal.tex

|-- Images/

|-- MainText/

|-- chapter1.tex

|-- chapter2.tex

|-- chapter3.tex

|-- Preamble/

|-- mydefinitions.tex

|-- abstract.tex

|-- physics_bibstyle.bst

|-- Thesis_bibliography.bib
```

If some practices seem like overkill for a 20 page proposal (splitting the content across different files), that is because it probably is, but we built it this way because the PhD thesis template is structured identically. That means that you will be able to incorporate this document into your thesis seamlessly.

#### 2.1 The Preamble Folder

You should edit the basic information about the thesis proposal which can be found in the file Preamble/mydefinitions.tex. This includes your name, the name of supervisor (and co-supervisor, if applicable) your title, and the date.

There are several toggle options available in this file, allowing you to switch between

thesis and thesis proposal formatting, as well as between 1.5 spacing (for thesis proposal and drafts of the thesis) and single spacing (for the final thesis).

This file also contains the bibliography settings, custom packages, and any custom commands that you many want to use. The default bibliography style is defined in Preamble/physics\_bibstyle.bst, which was created by Jeremie Gillet in 2011 for his thesis. Feel free to swap this file out with a style more suited to your field, and be sure to change the file name in Preamble/mydefinitions.tex (line 19). By default, the bibliography file containing your references is Preamble/Thesis\_bibliography.bib, so you should replace this file with your own version. If you'd like to store your bibliography information somewhere else (for example, if you have one master file for all of your LaTeX projects) you can edit the appropriate section in Thesis\_proposal.tex (should be around line 140).

You should write your abstract in the file Preamble/abstract.tex. This should not be longer than a single page.

#### 2.2 The MainText Folder

For the thesis proposal, the main text should be split across three chapters: the introduction and literature review, the research plan, and the progress report. Each of these chapters should be written in a standalone file located in the MainText folder, for example:

```
|-- MainText/
    |-- chapter1.tex
    |-- chapter2.tex
    |-- chapter3.tex
```

If you'd like to rename or add new files, make sure to change where they are referenced in Thesis\_proposal.tex around line 260. If you want to add an appendix, you can create a new file in MainText/, though add them to Thesis\_proposal.tex around line 280 instead. Your thesis may have several other chapters here, for example, Conclusions.

#### 2.3 The Images Folder

All the images that you will use in your thesis should be placed in the Images folder. This can contain subfolders, for example one for each chapter. To include an image from the main text, use something like \includegraphics{subfolder/image.jpg}; no need to worry about the path to the Images folder.

#### 2.4 The Thesis\_proposal.tex File

This is the main TeX file that takes input from all of the previously discussed files in the Preamble and MainText folders. To generate your document, this is the file you should compile. Compile once with LATEX, once with BibTeX and finally twice more with LATEX to get all the references right.

There is one document option at the top of this file that you should make sure is correct, which controls whether to format the document for printing or as a digital version. The printed version needs to have a "two-sided" style where the margins alternate on even and odd pages, whereas a digital version should have a "one-sided" style with consistent formatting on every page. Except for the final printed version, the formatting requirements require that you use the "one-sided" version (which is the default option).

As mentioned in the section about the MainText folder, you may also need to edit this file to add extra sections or appendices.

You probably won't need to edit this file very much otherwise, but in case you are looking for a specific setting or something, the following settings are defined in this file:

- Basic packages
- Loading of in custom values from Preamble/mydefinitions.tex
- Title page
- Headers and footers
- Table of Contents
- Thesis main text import
- Bibliography file (not style)
- Appendices

#### 2.5 Other Points

• This guide uses the **\texttt** environment to denote file names and paths. You should not use this in your actual thesis (proposal) as it will violate the font formatting requirements.

### 2.6 Converting to a Thesis

Once you've finished your thesis proposal (congratulations!) you may want to use your proposal as a starting point for your doctoral thesis. As mentioned above, the formatting requirements for both of these documents are very similar, and the only actual difference between the files you need is a few additions to the MainText and Preamble folders.

Formatting-wise, all you need to do to switch to a thesis is edit the conditional statement isthesis in Preamble/mydefinitions.tex. This will automatically change the title page and add lists of figures and tables.

Next, you need to add the following files to each respective folder:

```
|-- MainText/
|-- introduction.tex
|-- conclusion.tex
|-- publications.tex
|-- ...
|-- Preamble/
|-- abbreviations.tex
|-- acknowledgments.tex
|-- coauthorship.tex
|-- declaration.tex
|-- dedication.tex
|-- glossary.tex
|-- nomenclature.tex
```

These can be found in the thesis template repository: https://github.com/oist/LaTeX-template-phd-thesis

Thesis\_proposal.tex (which you can rename to Thesis.tex if you'd like) as described in the section above. Follow the directions in each individual file and you're done with the conversion!

Alternatively, you can download a whole new copy of the files from the repository above and copy over your MainText and Preamble folders to the new project.

### Chapter 3

### Figures, tables and images

### 3.1 Figures

Refer to figure like this: Figure 3.1 or this (Fig. 3.1). The thesis proposal should not include a list of figures (or tables); to enable this for the thesis, for which it is required, you should toggle the setting \toggletrue{isthesis} in the file Preamble/mydefinitions.tex. In this case, the short version of the caption, as shown in Figure 3.1, will be used in the list.

#### 3.2 Tables

Refer to tables list this: Table 3.1. To make a table that can split across multiple pages, use the longtable environment: https://texdoc.org/serve/longtable.pdf/0

Tables that span multiple pages should have the heading repeated on each new page.

The font size for all tables has been set to match the formatting requirements (10pt font); this applies to both longtable and table.



Figure 3.1: Short caption (if wanted). Full caption with all the details here.

**3.2** Tables 7



This secret image won't be numbered and won't appear in the List of Figures because of the  $^{\ast}$ 

Parameter	Value
Δ	0, 150
$\alpha$	85
$\epsilon$	6
$\kappa$	6.8
$\gamma$	0.2

Unnumbered table; full caption for regular table here.

Table 3.1: Short caption heading.

Parameter	Centroid model	Centered instance model		
Architecture	U-net	U-net		
Max Stride	16	16		
Filters	16	24		
Filters Rate	2.0	1.5		
Input Scaling	1.0	1.0		
Crop Size	N/A	64		
Training Augmentation				
Rotation	[-180, 180]	[-180, 180]		
Scale	[0.95, 1.05]	[0.95, 1.05]		
Contrast	[0.80, 1.40]	[0.80, 1.40]		
Brightness	[0.0, 10.0]	[0.0, 10.0]		

Full caption here for longtable if desired.

## Bibliography

- [1] H. Lee and M. Scully, *The Physics of EIT and LWI in V-Type Configurations*, Found. Phys. **28**, 585–600 (1998).
- [2] M. Mücke, E. Figueroa, J. Bochmann, C. Hahn, K. Murr, S. Ritter, C. J. Villas-Boas, and G. Rempe, *Electromagnetically induced transparency with single atoms in a cavity*, Nature **465**, 755–758 (2010).
- [3] H. Kramers, Scattering of light by atoms, Atti Cong. Intern. Fisica Como 2, 545–557 (1927).

# Appendix A

# About Appendices

Appendices are optional and should only be used if necessary.