`elegant-polimi-thesis` documentation

This chapter is the result of the documentation generated from the source code. Since it's not strictly needed to use the template – most of the functions are straightforward – it's quite barebones.

This document contains them all, even those that are not exposed to the user, which are marked with "_" before.

All functions

User designated functions

polimi-thesis

The main thesis formatting function.

Parameters

```
polimi-thesis(
  title: str ,
  author: str ,
  advisor: str ,
  coadvisor: str  arr ,
  academic-year: str ,
  tutor: str ,
  cycle: str ,
  chair: str ,
  student-id: str ,
  course: str ,
  logo: path ,
  frontispiece: "phd"  "deib-phd"  "cs-eng-master"  "classical-master" ,
  body
) -> content
```

title `str`

Title of the thesis.

Default: `"Thesis Title"`

author `str`

Author of the thesis.

Default: `"Name Surname"`

advisor `str`

Advisor of the thesis.

Default: `"Advisor"`

coadvisor `str` or `arr`

Coadvisor(s) of the thesis.

Default: `"Coadvisor"`

academic-year `str`

Academic year of the thesis. If empty, defaults to "2025-2026".

Default: `""`

tutor `str`

Tutor of the thesis.

Default: `"Tutor"`

cycle `str`

Cycle of the thesis.

Default: `"XXV"`

chair `str`

Chair of the thesis.

Default: `"Chair"`

student-id `str`

Student ID.

Default: `"00000000"`

course `str`

Student course.

Default: `"Course Engineering"`

logo `path`

Path of the main logo of the thesis (default: "Scuola di Ingegneria Industriale e dell'Informazione").

Default: `"img/logo_ingegneria.svg"`

frontispiece `"phd"` or `"deib-phd"` or `"cs-eng-master"` or `"classical-master"`

Frontispiece of the thesis. Can be either: `phd`, `deib-phd`, `cs-eng-master` or `classical-master`.

Default: `"phd"`

polimi-article-format-thesis

The thesis article format styling function.

Parameters

```
polimi-article-format-thesis(
    title: str,
    author: str,
    advisor: str,
    coadvisor: str array,
    academic-year: str,
    student-id: str,
    course: str,
    abstract: content,
    keywords: str,
    logo: path,
    body
) -> content
```

title `str`

Title of the thesis.

Default: `"Thesis Title"`

author `str`

Author of the thesis.

Default: `"Name Surname"`

advisor `str`

Advisor of the thesis.

Default: `"Prof. Name Surname"`

coadvisor `str` or `array`

Coadvisor(s) of the thesis.

Default: `"Prof. Name Surname"`

academic-year `str`

Academic year of the thesis. If empty, defaults to "2025-2026".

Default: `""`

student-id `str`

Student ID.

Default: `"00000000"`

course `str`

Student course.

Default: `"Xxxxxxxxxxxx Engineering - Ingegneria Xxxxxxxxxxxx"`

abstract `content`

Abstract.

Default: `[]`

keywords `str`

Keywords, that appear below the abstract (and in the PDF metadata).

Default: `"word, word, word"`

logo `path`

Logo of the thesis.

Default: `"img/logo_ingegneria.svg"`

polimi-executive-summary

The executive summary styling function.

Parameters

```
polimi-executive-summary(
    title: str ,
    author: str ,
    advisor: str ,
    coadvisor: str  array ,
    academic-year: str ,
    course: str ,
    logo: path ,
    body
) -> content
```

title `str`

Title of the thesis.

Default: `"Thesis Title"`

author `str`

Author of the thesis.

Default: `"Name Surname"`

advisor `str`

Advisor of the thesis.

Default: `"Prof. Name Surname"`

coadvisor `str` or `array`

Coadvisor(s) of the thesis.

Default: `"Prof. Name Surname"`

academic-year `str`

Academic year of the thesis. If empty, defaults to "2025-2026".

Default: `""`

course `str`

Student course.

Default: `"Xxxxxxxxxxxx Engineering - Ingegneria Xxxxxxxxxxxx"`

logo `path`

Logo of the thesis.

Default: `"img/logo_ingegneria.svg"`

_blank-toc

Helper function to manually add blank space above an outline entry (similar to LaTeX's `\addtocontents{toc}{\vspace{1em}}`).

Parameters

`_blank-toc(space: length) -> content`

space `length`

Vertical space to add before the next outline entry.

Default: `1em`

frontmatter

Frontmatter section. Similar to LaTeX's `\frontmatter`, it is meant to be only used in the thesis. It sets the page numbering to `"i"` and `numbering: none` for headings.

Parameters

`frontmatter(body) -> content`

acknowledgements

Acknowledgements section. It sets `numbering: none` for headings.

Parameters

`acknowledgements(body) -> content`

mainmatter

Mainmatter section. Similar to LaTeX's `\mainmatter`, it is meant to be only used in the thesis. It sets to page numbering to `"1"`, heading numbering to `"1.1"` + `h()` and resets the page counter.

Parameters

```
mainmatter(body) -> content
```

appendix

Appendix section. Similar to LaTeX's `\appendix`. It sets heading numbering to `"A.1"` and resets their counter.

Parameters

```
appendix(body) -> content
```

backmatter

Backmatter section. Similar to LaTeX's `\backmatter`, it is meant to be only used in the thesis. It sets heading numbering to `none`.

Parameters

```
backmatter(body) -> content
```

_lists

Lists figure to make the list of tables, list of figures to appear in the table of contents.

Parameters

```
_lists() -> content
```

_lists-entries-style

Internal helper function to create the custom lists of figures and table.

Parameters

```
_lists-entries-style(
    outline-entry: outline-entry ,
    kind: function
) -> content
```

> **outline-entry**   `outline-entry`
>
> Outline entry to edit.

kind `function`

The kind of the outline entry element (image or table)

nomenclature

Displays a simple nomenclature with keys and values.

```
#nomenclature((
    "Polimi": "Politecnico di Milano",
    "CdL": "Corso di Laurea",
    "CCS": "Consigli di Corsi di Studio",
    "CFU": "Crediti Formativi
Universitari",
))
```

Nomenclature

POLIMI Politecnico di Milano

CDL   Corso di Laurea

CCS   Consigli di Corsi di Studio

CFU   Crediti Formativi Universitari

Parameters

```
nomenclature(
  dict: dictionary ,
  indented: bool
) -> content
```

dict `dictionary`

Dictionary that hold keys and values.

indented `bool`

Whether to indent or not the nomenclature.

Default: `true`

theorems-init

Utility function to initialize the theorem environments[1]:

- theorem
- proposition
- lemma
- remark

Parameters

```
theorems-init(body) -> content
```

---

[1]Provided by great-theorems package.

subfigure

Creates a new subfigure with the given arguments and an optional label. From hallon package.

Parameters

```
subfigure(
    ..args,
    outlined: bool,
    label: str,
    body
) -> content
```

outlined `bool`

Whether to outline this subfigure or not.

Default: `false`

label `str`

Unique label to reference this subfigure

Default: `none`

toc `content`

Custom-built `outline()`.

list-of-figures `content`

List of figures. Similar to LaTeX's `\listoffigures`.

list-of-tables `content`

List of tables. Similar to LaTeX's `\listoftables`.

theorem `content`

Theorem block.

proposition `content`

Proposition block.

lemma `content`

Lemma block.

remark `content`

Remark block.

proof `content`

Proof block.

Utilities

_is-page-empty

Check if a page is empty.

Parameters

`_is-page-empty() ->` `bool`

_empty-page

Adds an empty page between an odd page and the next. Used to check when to remove the header and place a raggiera in the bottom left corner.

Parameters

`_empty-page() ->` `content`

_nameref

It displays a reference using section name (instead of numbering). From Hallon 0.1.3

Parameters

`_nameref(label) ->` `content`

_raggiera-image

Inserts a raggiera, given a specified width.

Parameters

`_raggiera-image(width:` `length` `) ->` `content`

width `length`

Width of the raggiera.

banner

Draw a banner.

Parameters

`banner(body:` `content` `) ->` `content`

body `content`

Body of the banner.

tab-numbering

Alternative numbering: `"1.1."` `+` `h-space`.

Parameters

```
tab-numbering(
    h-space: length,
    ..n: arguments
) -> content
```

h-space `length`

Horizontal space.

Default: `0.7em`

..n `arguments`

Numbers.

chapter-numbering

Chapter numbering.

Parameters

`chapter-numbering(..n:` `arguments` `) ->` `content`

..n `arguments`

Numbers.

header-number

Numbering used in the theses header.

Parameters

```
header-number(..n: arguments ) -> content
```

..n arguments

Numbers.

_sizes `dict`

LaTeX sizes to match original templates (https://tex.stackexchange.com/questions/24599/what-point-pt-font-size-are-large-etc)

_document-state `state`

The current state (title page, front-,main-,backmatter…)

_document-type `state`

The current type of document.

_localization `dict`

Localization dictionary. It could be deprecated since thesises are written exclusively in English.

bluepoli `color`

Signature PoliMi colour (■), used in headings and labels.

Figures styling

_subfigure-caption

It displays the caption of subfigures. Use "(a)" that will be colored based on `colored-headings` parameter.

Parameters

```
_subfigure-caption(
  colored-caption: bool ,
  parent: figure ,
  it
) -> content
```

> **colored-caption**   `bool`
>
> Whether to apply bluepoli on captions
>
> Default: `true`

> **parent**   `figure`
>
> Parent figure of this subfigure
>
> Default: `none`

_style-figures

Style-figures handles (optional heading-dependent) numbering of figures and subfigures. Can modify the caption of all figures.

Parameters

```
_style-figures(
  colored-caption: bool ,
  heading-levels: int ,
  body
) -> none
```

> **colored-caption**   `bool`
>
> Whether to apply bluepoli on captions (Figure 1).
>
> Default: `true`

> **heading-levels**   `int`
>
> Heading level to account for in the numbering.
>
> Default: `0`