

The `coppe` document class

Version 3.4

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Abstract

In this work, it is described the `coppe` document class as well as other files distributed by the `COPPETEX` project. This class is suitable for writing academic dissertations, thesis and qualifying exams according to the formatting rules of the Alberto Luiz Coimbra Institute for Graduate Studies and Research in Engineering. The minimalist set of macro commands allows its users to concentrate most of their efforts on text composition rather than on the document layout.

1 Introduction

Writing documents in `LATEX` may be a laborious task when the authors have to prepare their manuscripts rigorously respecting formatting rules imposed by publishers. Regardless of difficulty, a lot of thesis presented to the Coordination of Graduate Studies and Research in Engineering of the Federal University of Rio de Janeiro (`COPPE/UFRJ`) is typesetted in `LATEX`. This demand motivated the creation of the `COPPETEX` project, which tries to facilitate and encourage the use of `LATEX` within the `COPPE/UFRJ` scope.

The `coppe` document class is the main product of `COPPETEX`. It was designed to be clear and succinct. It enables the creation of dissertations, qualifying exams and thesis in a simple and automatic way. The main goal of the `coppe` class is to maintain authors strictly focused on text composition without worrying about margins sizes, line spacing, paper size, vertical and horizontal alignment, etc. The `COPPETEX` project comprehends also `BIBTEX` and `MakeIndex` style files for creating lists of references, symbols and abbreviations. Although there aren't official guidelines to write qualifying exams, we provide this option just for convenience, as this exam is a requisite to obtain the DSc degree and, for some of the programs, the MSc degree.

In which follows, it is described the user interface of the `coppe` class. Some details about using the style files cited above are also given. We use the term *thesis* to generally refer to dissertation, qualifying exam, and thesis itself.

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copying, distributing or modifying the source code, among other acts covered by this license.

To see the full text of the GNU GPL license, go to the `COPYING` file attached to this package.

3 Support

We maintain a mailing list where users can send questions, comments, and bugs to. More details can be found [here](#).

However, as the project maintenance was transferred to a new repository, bug reports, as well as new feature requests, should be directed to <https://github.com/COPPE-UFRJ/CoppeTeX>.

4 User interface

`\frontmatter` A thesis to be approved by the Academic Registry at COPPE/UFRJ must contain
`\mainmatter` three-parts: *front*, *main* and *back* matters [1]. Each one of these parts is started
`\backmatter` by calling its corresponding macro `\frontmatter`, `\mainmatter` or `\backmatter`.
The front matter of a thesis consists of front cover and face, cataloging page, dedication, acknowledgments, abstracts, table of contents, and lists of tables, algorithms, symbols and abbreviations. The main matter is just composed by chapters, while the back matter usually consists of bibliographic references, appendices and index.

You must invoke the `\frontmatter` macro immediately after the `\maketitle` one. The `\mainmatter` command comes right before the first chapter, and `\backmatter` must be typed before the list of references.

Front cover

This element was recently introduced by the Academic Registry. It is automatically constructed by the `\maketitle` command.

Front face

The front face is unnumbered. There, it is not allowed to use hyphenation [1]. It is constructed by calling `\maketitle`. Next, it is described the commands used to enter the information required to create it.

`\author` The `\author` command was redefined. Here, it takes two arguments: the author's first names and surname, e.g., `\author{First Names}{Surname}`. The words should be typed with only first letters in uppercase.

`\title` The macros `\title` and `\foreigntitle` are used to enter the titles of your
`\foreigntitle` monograph in the current and foreign languages. The default languages are Brazilian Portuguese and English. The `babel` package is automatically loaded by `coppe.cls`, so you do not need to load it again. The Brazilian Portuguese is the main language and the English is only required for the foreign abstract.

`\advisor` Every COPPE student is coordinated by at least one advisor. M.Sc. and D.Sc.
`\examiner` students can have at most 2 and 3 advisors, respectively. Their names must be provided by issuing the command `\advisor` as below:

`\advisor{Title}{Advisor's Name}{Surname}{Degree}`

```
\advisor{Title}{Second Advisor's Name}{Surname}{Degree}
\advisor{Title}{Third Advisor's Name}{Surname}{Degree}
```

The advisors are not necessarily members of the thesis examination board. Thus, it is required to enter the names of all examiners using the `\examiner` macro. The examiners' names are entered differently:

```
\examiner{Title}{First Examiner's Name Surname}{Degree}
\examiner{Title}{Second Examiner's Name Surname}{Degree}
...
\examiner{Title}{N-th Examiner's Name Surname}{Degree}
```

Remember that all names must be given before calling `\maketitle`.

`\department` The Alberto Luiz Coimbra institute is divided into 12 academic units: Biomedical Engineering (PEB), Civil Engineering (PEC), Electrical Engineering (PEE), Mechanical Engineering (PEM), Metallurgical and Materials Science Engineering (PEMM), Nuclear Engineering (PEN), Ocean Engineering (PENO), Energy Planning (PPE), Production Engineering (PEP), Chemical Engineering (PEQ), Systems Engineering and Computer Science (PESC), and Transportation Engineering (PET). You must specify your department using one of the above abbreviations, e.g., `\department{PEC}`.

`\date` This macro is used to set the month and year of defense. This information is required to create the front face, cataloging details page and abstracts. For example, October 2007 should be entered as `\date{10}{2007}`.

`\keyword` The keywords should describe the concentration areas of your work. You must provide them as follows:

```
\keyword{First Keyword}
\keyword{Second Keyword}
...
\keyword{N-th Keyword}
```

Usually, six words are enough.

Cataloging details

This page contains cataloging information useful for librarians. Fortunately, it is automatically generated from the data you entered at the time you call `\maketitle`. It is not needed in qualifying exams, though.

Dedication (optional)

`\dedication` This macro was added for convenience. The input text is placed at the right bottom of a blank page. It is emphasized and in normal size.

Abstracts

`abstract` (*env.*) As stated by the Academic Registry [1], abstracts must be in one page each, with `foreignabstract` (*env.*) at most 250 words. We recommended that they should be only one paragraph long. They must be defined inside the environments `abstract` and `foreignabstract`.

Lists of symbols and abbreviations (optional)

`\abbrev` The lists of symbols and abbreviations are optional, although highly recommended.

`\syml` It is a good practice to define a symbol/abbreviation in its first occurrence in the text. To define a symbol use `\syml[alphabetic symbol]{Symbol}{Symbol Definition}`, and for abbreviations `\abbrev[alphabetic symbol]{Abbreviation}{Abbreviation Definition}`. These commands are called *dummy*, since they don't output anything at the place they are executed, just an entry in the correspondent list.

`\makeloabbreviations` These lists are lexicographically sorted by using the MakeIndex program, which is part of any L^AT_EX implementation. For `\syml`, if the optional parameter is provided, it will be used as sort key. This was later, in 2024, implemented also for `\printloabbreviations` and `\printlosymbols`. `\abbrev`, otherwise `Symbol`, or `Abreviation` will be used as sort key, what can result in an undesirable order if it contains L^AT_EX commands, mathematical symbols, or mix of uppercase and lowercase. MakeIndex needs two commands to create a final sorted list: one which generates a list of entries and the other that indicates the position where the list will be printed out. To generate the lists of symbols and abbreviations, the `coppe` class provides the commands `\makeloabbreviations` and `\makelosymbols`, respectively. They must be called in the document preamble. The commands `\printlosymbols` and `\printloabbreviations` have to be invoked at the point where you want these lists appear, e.g., following the list of tables as showed in the example. Once you call `latex`, it will be created two files with extensions `abx` and `syx`, which contain MakeIndex input data. They must be processed with `makeindex` in order to get the lists correctly produced, redirecting the output to files with extension `lab` and `los` respectively:

```
makeindex -s coppe.ist -o example.lab example.abx
makeindex -s coppe.ist -o example.los example.syx
```

Note the `-s` option for specifying the style `coppe.ist`. Now, rerun `latex` twice to get the references solved and you are done.

References

It is well known that bibliography databases can be easily maintained with the aid of B^IB^TE_X. Thus, the COPPE_TE_X project designed two B^IB^TE_X styles, `coppe-plain.bst` and `coppe-unsrt.bst`. The `coppe-plain.bst` creates a list of references alphabetically sorted. The later is a numbered style, which sorts references by the order of citation. To use them, you have to select either `coppe-plain` or `coppe-unsrt` as the B^IB^TE_X style and include your B^IB^TE_X references without the `bib` extension, as in the following example:

```
\bibliographystyle{coppe-unsrt}
\bibliography{example}
```

As of May 4th, 2023, there are new bibliographic styles for english, `en-coppe-plain.bst` and `en-coppe-unsrt.bst`, that uses other string constants, such as “Technical Report” instead of “Relatório Técnico”.

Run in sequence L^AT_EX, B^IB^TE_X, and twice again L^AT_EX to resolve reference. These styles are `natbib` compatible. This means that you can freely issue the commands `\citet` and `\citep`, as well as any other `natbib` feature.

5 Class options

There are some options users can specify in order to customize the appearance of the output produced by the `coppe` class. These options can be passed to `coppe` as follows: `\documentclass[option1, option2]{coppe}`. In which follows, we give a brief description of all supported options.

dsc, msc, dscexam, mscexam The `coppe` class is able to produce thesis, dissertations, and qualifying exams, which are enabled by the `dsc`, `msc`, `mscexam`, and `dscexam` options, respectively.

doublespacing The default line spacing is one-and-a-half. For enabling double spacing between lines, use the `doublespacing` option.

numbers The default citation style is the author-year scheme, which must be followed by the use of its corresponding BibTeX style, namely, the `coppe-plain.bst` file. For numbered citations, specify the option `numbers` to the `coppe` class. In this case, it is mandatory the use of `coppe-unsrt.bst`, as the bibliography style.

5.1 Changing document identification

`\freeconfig` The user could *optionally* use the command `freeconfig` to modify the parameters that print the document identification. The command `freeconfig` needs all those parameters, which are degree initials, degree name, title, foreign title, local doctype, and foreign doctype as in the following example:

```
\freeconfig{Dr.}{Philosophiae Doctor}{PhD}{Doutor}{Dissertation}{Tese}
```

6 Quick, useful tips

Pictures. The default picture format of L^AT_EX is the Encapsulated PostScript (EPS). If you use pdfL^AT_EX, the default format becomes the PDF, but you can equally load PNG files. For such, you must enter the name of your image file without extension, e.g., `\includegraphics{filename}`, and `pdflatex` will firstly look for a file called `filename.pdf` and after for file `filename.png`. For producing high quality pictures with embedded fonts we recommend the Ipe drawing software available [here](#).

Fonts. The default font in L^AT_EX is the Computer Modern. If you would like to try its enhanced version, consider using the `lmodern` package. To use Times, it is recommended to load the package `mathptmx`, rather than the deprecated `times`. There is also an enhanced Times version available with the `tgtermes` package. You can still use the Arial font face with the package `uarial`.

Hyperref. When working with PDF's, there is the possibility to add extra information to the file as the author's name, document title, subject, keywords, etc. This is easily done with the `hyperref` package. It is also useful to enable hyperlinks. Fortunately, the `coppe` class will do this automatically if `hyperref` is loaded.

Printing. To get your work correctly printed, you must ensure that any page scaling option (e.g., fit or shrink to printable area) isn't enabled. This kind of option often comes in print dialogs of document visualization softwares.

longquote Quotation To quote text larger than three lines, according to ABNT, you must increase the left margin to 4 cm, do not use quotation marks, and use a smaller font. The `coppe` class provides the `longquote` environment to easily make these adjustments.

7 A simple example

```

1 \example
2 \documentclass[dsc]{coppe}
3
4 \usepackage{booktabs}% tabelas mais bonitas
5 \usepackage{rotating}% rodando coisas, como tabelas
6 \usepackage{longtable} % tabelas longas
7 \usepackage[most]{tcolorbox} % caixas de texto
8 \usepackage{amsmath,amssymb}
9 \usepackage{hyperref}
10 \usepackage{listings} % para usar listagens
11
12
13 \makelosymbols
14 \makeloabbreviations
15
16 \begin{document}
17   \title{Título da Tese}
18   \foreigntitle{Thesis Title}
19   \author{Nome do Autor}{Sobrenome}
20   \advisor{Prof.}{Nome do Primeiro Orientador}{Sobrenome}{D.Sc.}
21   \advisor{Prof.}{Nome do Segundo Orientador}{Sobrenome}{Ph.D.}
22   \advisor{Prof.}{Nome do Terceiro Orientador}{Sobrenome}{D.Sc.}
23
24   \examiner{Prof.}{Nome do Primeiro Examinador Sobrenome}{D.Sc.}
25   \examiner{Prof.}{Nome do Segundo Examinador Sobrenome}{Ph.D.}
26   \examiner{Prof.}{Nome do Terceiro Examinador Sobrenome}{D.Sc.}
27   \examiner{Prof.}{Nome do Quarto Examinador Sobrenome}{Ph.D.}
28   \examiner{Prof.}{Nome do Quinto Examinador Sobrenome}{Ph.D.}
29   \department{PESC}
30   \date{01}{2024}
31
32   \keyword{Primeira palavra-chave}
33   \keyword{Segunda palavra-chave}
34   \keyword{Terceira palavra-chave}
35
36   \maketitle
37
38   \frontmatter
39   \dedication{A alguém cujo valor é digno desta dedicatória.}
40
41   \chapter*{Agradecimentos}

```

```

42
43 Gostaria de agradecer a todos.
44
45 \begin{abstract}
46
47 Apresenta-se, nesta tese, ...
48
49 \end{abstract}
50
51 \begin{foreignabstract}
52
53 In this work, we present ...
54
55 \end{foreignabstract}
56
57 \tableofcontents
58 \listoffigures
59 \listoftables
60 \printlosymbols
61 \printloabbreviations
62
63 \mainmatter
64 \chapter{Introdução}
65
66 Este é um documento exemplo para o uso da classe CoppeTeX, destinado a ajudar os alunos da
67
68 A classe \verb|coppe| foi criada por Vicente Helano e George Ainsworth, porém, em 2024, é
69
70 A versão mais atual dessa classe é mantida no GitHub, no repositório \url{https://github.c
71
72 Esse documento segue a norma de formatação de teses e dissertações da COPPE. Ele também po
73
74 Esse documento é usado como exemplo de coisas que podem ser feitas. Ele está configurado p
75
76 É importante de notar que essa classe não foi construída sobre a classe \LaTeX \ para a A
77
78 Apesar desse modelo ser muito bom, ele tem um defeito: a limitação do sistema de referênci
79
80 Mais ainda, as regras da COPPE ainda não se adaptaram, no início de 2024, as novas regras
81
82 Este documento não substitui, mas complementa, o documento que descreve a classe.
83
84 \chapter{Configurações Iniciais}
85
86 A primeira coisa a fazer é escolher o tipo de documento. Isso é feito como uma opção no c
87
88 Como pode ser visto nesse documento, muita coisa pode ser configurada, o que gerará o tra
89
90 Recomendo ler o documento ‘‘The \verb*|coppe| document class’’ para entender melhor todas
91
92
93 \section{Por que usar o \LaTeX}
94
95 Há uma grande discussão entre usuário de Word e \LaTeX, principalmente, quanto ao uso dess

```

96

97 Nós escolhemos o `\LaTeX` por alguns motivos: grande facilidade de seguir um estilo sem se p

98

99 As principais desvantagens são: idiossincrasias que podem gastar tempo, pouco controle sob

100

101 `\section{Como e onde usar o \LaTeX}`

102

103 Existem muitos tutoriais de `\LaTeX`, mas basicamente, em 2024, ele é usado em dois ambiente

104 `\begin{enumerate}`

105 `\item` Na sua máquina, instalando uma versão completa como o MikTeX, típico do Windows, ou

106 `\item` Usar um ambiente na rede, como o Overleaf.

107 `\end{enumerate}`

108

109 Em todo caso, recomendo fortemente que, ao mesmo tempo, mantenha versões no Git e faça o b

110

111

112 `\chapter{Algumas Regras da COPPE}`

113

114 Todas abreviaturas e símbolos devem ser definida antes de utilizada. Isso é facilmente fei

115

116 É imprescindível definir os símbolos, tal como o

117 conjunto dos números reais `\mathbb{R}` e o conjunto vazio `\emptyset`.

118 `\syml{\mathbb{R}}{Conjunto dos números reais}`

119 `\syml{\emptyset}{Conjunto vazio}`. Usamos esse exemplo aqui justamente para mostrar como

120

121 Para as listas de abreviaturas e símbolos funcionarem no Overleaf é necessário rodar o `\ve`

122

123 Como as listas de símbolos e de abreviaturas usamo o mesmo comando usado para criar índice

124

125 `\section{Citações}`

126

127 Citações curtas podem ser feitas `\quote{o comando quote}` ou direto com “duas crases e dois

128

129 `\begin{longquote}`

130 Um exemplo de citação longa nas regras da ABNT (4cm de recuo e fonte menor)

131 feita com o ambiente `\verb=longquote=` The primary objective of this

132 investigation was to determine the feasibility of detecting corrosion in

133 aluminum Naval aircraft components with neutron radiographic interrogation

134 and the use of standard corrosion penetrameters. Secondary objectives

135 included the determination of the effect of object thickness on image quality,

136 the defining of minimum levels of detectability and a preliminary investigation

137 of a means whereby the degree of corrosion could be quantified with neutron

138 radiographic data. `\cite{article-example}`

139 `\end{longquote}`

140

141 Citações devem apontar as referências. Para isso, está disponível o ótimo pacote `\verb*|na`

142

143 Em todo caso, `\textbf{deve}` se tomar enorme atenção com as citações, para evitar ocorrer em

144

145 `\chapter{Floats}`

146

147 Grande parte dos problemas de iniciantes, e veteranos, em `\LaTeX` é da localização dos `\texti`

148

149 A regra geral de posicionamento é que uma figura ou quadro só pode aparecer a partir da mesm


```

150
151 \textbf{Segundo a norma da ABNT, as legendas} \verb|\caption| \textbf{das figuras e quadros}
152
153 Quadros são opcionais. Quando usados, tabelas passam a só conter números, enquanto quadros c
154
155
156 \section{Tabelas e Figuras Padrão}
157
158 Vamos ver uma tabela padrão, como a \autoref{tab:exemplo_numeros}.
159
160 \begin{table}[ht]
161 \centering % Centraliza a tabela
162 \caption{Exemplo de Tabela de Números}
163 \label{tab:exemplo_numeros}
164 \begin{tabular}{ccc} % Define a quantidade de colunas
165 \hline % Linha superior
166 \textbf{Coluna 1} & \textbf{Coluna 2} & \textbf{Coluna 3} \\ \hline % Cabeçalhos
167 \hline % Linha média
168 1 & 2 & 3 \\ \hline % Primeira linha de dados
169 \hline
170 4 & 5 & 6 \\ \hline % Segunda linha de dados
171 \hline
172 7 & 8 & 9 \\ \hline % Terceira linha de dados
173 \hline
174 10 & 11 & 12 \\ \hline % Quarta linha de dados
175 \hline % Linha inferior
176 \end{tabular}
177 \end{table}
178
179
180
181 Já a \autoref{fig:exemplo_figura} é uma figura padrão, com controle da largura.
182
183 \begin{figure}[ht]
184 \centering % Centraliza a figura
185 \includegraphics[width=0.5\textwidth]{coppe-logo.pdf} % Inclui a imagem com metade da largura
186 \caption{Exemplo de Figura com Legenda Abaixo} % Legenda da figura
187 \label{fig:exemplo_figura} % Etiqueta para referência cruzada
188 \end{figure}
189
190
191
192
193
194 \section{Tabelas mais elegantes}
195
196 Atualmente a tendência é usar tabelas mais leves, como \autoref{tab:exemplo_numerosbom}. Iss
197
198 \begin{table}[ht]
199 \centering % Centraliza a tabela
200 \caption{Exemplo de Tabela de Números mais elegantes}
201 \label{tab:exemplo_numerosbom}
202 \begin{tabular}{ccc} % Define a quantidade de colunas
203 \toprule % Linha superior

```

```

204 \textbf{Coluna 1} & \textbf{Coluna 2} & \textbf{Coluna 3} \\ % Cabeçalhos
205 \midrule % Linha média
206 1 & 2 & 3 \\ % Primeira linha de dados
207 4 & 5 & 6 \\ % Segunda linha de dados
208 7 & 8 & 9 \\ % Terceira linha de dados
209 10 & 11 & 12 \\ % Quarta linha de dados
210 \bottomrule % Linha inferior
211 \end{tabular}
212 \end{table}
213
214 \section{Tabelas Longas ou Largas}
215
216 Se sua tabela é muito longa ou larga, existem várias opções.
217 \begin{itemize}
218     \item alterar o tamanho da letra
219     \item Usar o longtable
220     \item rodar a tabela, fazendo ela em \textit{landscape}
221     \item fazer a tabela dentro de um minibox
222 \end{itemize}
223
224
225 \subsection{Tabelas largas demais}
226
227 É comum em teses que as tabelas sejam largas demais. Há várias formas de resolver isso.
228
229 A \autoref{tab:tabela_largafns} é larga demais, e nela isso é resolvido diminuindo a fonte p
230
231 \begin{table}[ht]
232 \centering % Centraliza a tabela
233 \caption{Exemplo de Tabela Larga com Fonte Menor}
234 \label{tab:tabela_largafns}
235 \footnotesize % Aplica uma fonte menor para a tabela
236 \begin{tabular}{ccccccc} % Aumente o número de colunas conforme necessário
237 \toprule
238 \textbf{Coluna 1} & \textbf{Coluna 2} & \textbf{Coluna 3} & \textbf{Coluna 4} & \textbf{Coluna 5} & \textbf{Coluna 6} & \textbf{Coluna 7} \\
239 \midrule
240 Dado 1.1 & Dado 1.2 & Dado 1.3 & Dado 1.4 & Dado 1.5 & Dado 1.6 & Dado 1.7 & Dado 1.8 \\
241 Dado 2.1 & Dado 2.2 & Dado 2.3 & Dado 2.4 & Dado 2.5 & Dado 2.6 & Dado 2.7 & Dado 2.8 \\
242 Dado 3.1 & Dado 3.2 & Dado 3.3 & Dado 3.4 & Dado 3.5 & Dado 3.6 & Dado 3.7 & Dado 3.8 \\
243 \bottomrule
244 \end{tabular}
245 \end{table}
246
247 O comando \verb|\resizebox{width}{height}{content}| permite ajustar o tamanho de qualquer co
248
249 \begin{table}[ht]
250 \centering
251 \caption{Exemplo de Tabela Redimensionada}
252 \label{tab:examplerb}
253 \resizebox{\textwidth}{!}{%
254 \begin{tabular}{llll}
255 \toprule
256 Coluna 1 & Coluna 2 & Coluna 3 & Coluna 4 \\
257 \midrule

```

```

258 Dados 1 & Dados 2 & Dados 3 & Dados 4 \\
259 Dados 5 & Dados 6 & Dados 7 & Dados 8 \\
260 \bottomrule
261 \end{tabular}%
262 }
263 \end{table}
264
265
266 Para rodar uma tabela muito larga em 90 graus no LaTeX, você pode usar o pacote \verb*|rotat
267
268 Aqui está um exemplo de como usar o ambiente \verb*|sidewaystable| para girar uma tabela. Pr
269
270 \begin{sidewaystable}
271 \centering
272 \caption{Sua Legenda Aqui}
273 \label{tab:sua_tabela}
274 \begin{tabular}{lll}
275 \toprule
276 Coluna 1 & Coluna 2 & Coluna 3 \\
277 \midrule
278 Item 1 & Item 2 & Item 3 \\
279 Item 4 & Item 5 & Item 6 \\
280 \bottomrule
281 \end{tabular}
282 \end{sidewaystable}
283
284 Se a tabela for muito longa, o ambiente \verb|longtable| é o ideal. Ele fornece comandos par
285
286 % Exemplo de tabela longa que se estende por várias páginas
287 \begin{longtable}{|c|c|c|}
288 % primeiro cabeçalho (é o caption)
289 \caption{Exemplo de Tabela Longa}\label{tab:longa} \\
290 \hline \textbf{Coluna 1} & \textbf{Coluna 2} & \textbf{Coluna 3} \\ \hline
291 \endfirsthead
292 % cabeçalho normal
293 \multicolumn{3}{c}%
294 {\tablename\ \thetable} -- continuação da página anterior} \\
295 \hline \textbf{Coluna 1} & \textbf{Coluna 2} & \textbf{Coluna 3} \\ \hline
296 \endhead
297 % pé normal
298 \hline \multicolumn{3}{|r|}{Continua na próxima página} \\ \hline
299 \endfoot
300 \hline
301 % último pé
302 \multicolumn{3}{|r|}{Continua na próxima página}} \\
303 \hline \hline
304 \endlastfoot
305
306 % Conteúdo da tabela
307 1 & 2 & 3 \\
308 4 & 5 & 6 \\
309 1 & 2 & 3 \\
310 4 & 5 & 6 \\
311 1 & 2 & 3

```

312 4 & 5 & 6 \\
 313 1 & 2 & 3 \\
 314 4 & 5 & 6 \\
 315 1 & 2 & 3 \\
 316 4 & 5 & 6 \\
 317 1 & 2 & 3 \\
 318 4 & 5 & 6 \\
 319 1 & 2 & 3 \\
 320 4 & 5 & 6 \\
 321 1 & 2 & 3 \\
 322 4 & 5 & 6 \\
 323 1 & 2 & 3 \\
 324 1 & 2 & 3 \\
 325 4 & 5 & 6 \\
 326 1 & 2 & 3 \\
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 336 1 & 2 & 3 \\
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 339 4 & 5 & 6 \\
 340 1 & 2 & 3 \\
 341 4 & 5 & 6 \\
 342 1 & 2 & 3 \\
 343 4 & 5 & 6 \\
 344 1 & 2 & 3 \\
 345 4 & 5 & 6 \\
 346 1 & 2 & 3 \\
 347 4 & 5 & 6 \\1 & 2 & 3 \\
 348 4 & 5 & 6 \\
 349 1 & 2 & 3 \\
 350 4 & 5 & 6 \\
 351 1 & 2 & 3 \\
 352 1 & 2 & 3 \\
 353 4 & 5 & 6 \\
 354 1 & 2 & 3 \\
 355 4 & 5 & 6 \\
 356 1 & 2 & 3 \\
 357 4 & 5 & 6 \\
 358 1 & 2 & 3 \\
 359 4 & 5 & 6 \\
 360 1 & 2 & 3 \\
 361 4 & 5 & 6 \\
 362 1 & 2 & 3 \\
 363 4 & 5 & 6 \\
 364 1 & 2 & 3 \\
 365 4 & 5 & 6 \\

```

366 1 & 2 & 3 \\
367 4 & 5 & 6 \\
368 1 & 2 & 3 \\
369 4 & 5 & 6 \\
370 1 & 2 & 3 \\
371 4 & 5 & 6 \\
372 1 & 2 & 3 \\
373 4 & 5 & 6 \\
374 1 & 2 & 3 \\
375 4 & 5 & 6 \\
376 1 & 2 & 3 \\
377 4 & 5 & 6 \\
378 1 & 2 & 3 \\
379 4 & 5 & 6 \\
380 1 & 2 & 3 \\
381 4 & 5 & 6 \\
382 1 & 2 & 3 \\
383 4 & 5 & 6 \\
384 1 & 2 & 3 \\
385 4 & 5 & 6 \\
386 1 & 2 & 3 \\
387 4 & 5 & 6 \\
388 1 & 2 & 3 \\
389 4 & 5 & 6 \\
390 1 & 2 & 3 \\
391 4 & 5 & 6 \\
392 1 & 2 & 3 \\
393 4 & 5 & 6 \\
394 1 & 2 & 3 \\
395 4 & 5 & 6 \\
396 1 & 2 & 3 \\
397 4 & 5 & 6 \\
398 1 & 2 & 3 \\
399 4 & 5 & 6 \\
400 1 & 2 & 3 \\
401 4 & 5 & 6 \\
402 1 & 2 & 3 \\
403 4 & 5 & 6 \\
404 1 & 2 & 3 \\
405 4 & 5 & 6 \\
406 1 & 2 & 3 \\
407 4 & 5 & 6 \\
408 1 & 2 & 3 \\
409 4 & 5 & 6 \\
410 1 & 2 & 3 \\
411 4 & 5 & 6 \\
412 1 & 2 & 3 \\
413 4 & 5 & 6 \\
414
415 % Repetir linhas semelhantes conforme necessário para estender a tabela por 3 páginas
416 \end{longtable}
417
418 \chapter{Revisão Bibliográfica}
419

```

```

420 Para ilustrar a completa ades~ao ao estilo de cita{c c}~oes e listagem de
421 refer~encias bibliogr~aficas, a Tabela~\ref{tab:citation} apresenta cita{c
422 c}~oes de alguns dos trabalhos contidos na norma fornecida pela CPGP da
423 COPPE, utilizando o estilo numérico. Tirando do comando inicial o parâmetro opcional numér
424
425 \begin{table}[h]
426 \caption{Exemplos de cita{c c}~oes utilizando o comando padr~ao
427 \texttt{\textbackslash cite} do \LaTeX\ e
428 o comando \texttt{\textbackslash citet},
429 fornecido pelo pacote \texttt{natbib}.}
430 \label{tab:citation}
431 \centering
432 {\footnotesize
433 \begin{tabular}{|c|c|c|}
434 \hline
435 Tipo da Publicação & \verb|\cite| & \verb|\citet|\\
436 \hline
437 Livro & \cite{book-example} & \citet{book-example}\\
438 Artigo & \cite{article-example} & \citet{article-example}\\
439 Relatório & \cite{techreport-example} & \citet{techreport-example}\\
440 Relatório & \cite{techreport-exampleIn} & \citet{techreport-exampleIn}\\
441 Anais de Congresso & \cite{inproceedings-example} &
442 \citet{inproceedings-example}\\
443 Séries & \cite{incollection-example} & \citet{incollection-example}\\
444 Em Livro & \cite{inbook-example} & \citet{inbook-example}\\
445 Dissertação de mestrado & \cite{mastersthesis-example} &
446 \citet{mastersthesis-example}\\
447 Tese de doutorado & \cite{phdthesis-example} & \citet{phdthesis-example}\\
448 \hline
449 \end{tabular}}
450 \end{table}
451
452 \begin{table}[h]
453 \caption{Exemplos de cita{c c}~oes utilizando o comando padr~ao
454 \texttt{\textbackslash cite} do \LaTeX\ e
455 o comando \texttt{\textbackslash citet},
456 fornecido pelo pacote \texttt{natbib}. Além disso, usando o booktabs.}
457 \label{tab:citation1}
458 \centering
459 {\footnotesize
460 \begin{tabular}{ccc}
461 \toprule
462 Tipo da Publicação & \verb|\cite| & \verb|\citet|\\
463 \midrule
464 Livro & \cite{book-example} & \citet{book-example}\\
465 Artigo & \cite{article-example} & \citet{article-example}\\
466 Relatório & \cite{techreport-example} & \citet{techreport-example}\\
467 Relatório & \cite{techreport-exampleIn} & \citet{techreport-exampleIn}\\
468 Anais de Congresso & \cite{inproceedings-example} &
469 \citet{inproceedings-example}\\
470 Séries & \cite{incollection-example} & \citet{incollection-example}\\
471 Em Livro & \cite{inbook-example} & \citet{inbook-example}\\
472 Dissertação de mestrado & \cite{mastersthesis-example} &
473 \citet{mastersthesis-example}

```

```

474 Tese de doutorado & \cite{phdthesis-example} & \citet{phdthesis-example}\\
475 \bottomrule
476 \end{tabular}}
477 \end{table}
478
479 \chapter{Alguns outros exemplo úteis}
480
481 \begin{tcolorbox}[title=Meu Textbox]
482 Este é o conteúdo do meu textbox. Você pode adicionar qualquer texto aqui, bem como incluir
483 \end{tcolorbox}
484
485 \begin{tcolorbox}
486 Este é o conteúdo do meu textbox sem título. Você pode adicionar qualquer texto aqui, bem como
487 \end{tcolorbox}
488
489 \begin{figure}[ht]
490 \centering
491 \begin{tikzpicture}
492 \node[anchor=south west,inner sep=0] (image) at (0,0) {\includegraphics[width=0.5\textwidth]{image}}
493 \begin{scope}[x={({image.south east}),y={({image.north west})}]
494 % Definindo o textbox dentro da figura
495 \node[anchor=north west, text width=0.3\textwidth, fill=white, opacity=0.7, text=white]
496 \begin{tcolorbox}[colback=red!5!white,colframe=red!75!black,title=Textbox dentro da figura]
497 Este textbox fala sobre como inserir um textbox dentro de uma figura usando tcolorbox
498 \end{tcolorbox}
499 \end{scope}
500 \end{tikzpicture}
501 \caption{Figura com Textbox}
502 \label{fig:figura_com_textbox1}
503 \end{figure}
504
505
506
507 \begin{figure}[ht]
508 \centering
509 \begin{tcolorbox}
510 Este é o conteúdo do meu textbox sem título. Você pode adicionar qualquer texto aqui, bem como
511 \end{tcolorbox}
512 \caption{Figura com Textbox simples}
513 \label{fig:figura_com_textbox}
514 \end{figure}
515
516 \chapter{Método Proposto}
517 \chapter{Resultados e Discussões}
518
519 \section{Algumas Demonstrações}
520
521 A Lista de Símbolos precisa usar comandos específicos. Aqui vamos usar os símbolos  $\alpha$  e  $\beta$ 
522 \syml[beta]{Beta}{A palavra Beta mais e corrigida}
523 \syml[zzbeta]{ $\beta$ }{A letra  $\beta$  corrigida}
524 \syml[beta]{A palavra beta}
525 \syml[alpha]{A palavra alpha}
526 \syml[alpha]{Alpha}{A palavra Alpha}
527 \syml[zzalpha]{ $\alpha$ }{A letra  $\alpha$  corrigida}

```

```

528 \syml[marco]{Marco}{A palavra Marco corrigida}
529
530 A Lista de Abreviações segue, a partir de 2024, a mesma regra, e aqui seguem alguns exemplos
531 \abbrev{GoT}{Game of Thrones}
532 \abbrev[GOT]{GoT}{Game of Thrones ordenado como GOT}
533 \abbrev[iot]{IoT}{IoT ordenado como iot}
534 \abbrev[IOT]{IoT}{IoT ordenado como IoT}
535 \abbrev[IOT]{IoT}{IoT ordenado como IOT}
536 \abbrev{IoT}{IoT com ordenação default}
537 \abbrev[ITU]{ITU}{ITU mesmo}
538
539
540
541
542 \chapter{Conclusões}
543
544 \backmatter
545 \bibliographystyle{coppe-unsrt}
546 \bibliography{example}
547
548
549
550 \appendix
551
552 \chapter{Um apêndice}
553
554 Segundo a norma da ABNT (Associação Brasileira de Normas Técnicas), a definição e utilização
555
556 Apêndice: O apêndice é um texto ou documento elaborado pelo autor do trabalho com o objetivo
557
558
559 \renewcommand{\appendixname}{Anexo}
560 \appendix
561
562
563
564 \chapter{Um Anexo}
565 Segundo a norma da ABNT (Associação Brasileira de Normas Técnicas), a definição e utilização
566
567
568
569 Anexo: O anexo, por sua vez, consiste em um texto ou documento não elaborado pelo autor, que
570 \end{document}
571
572 \example

```

8 Implementation

8.1 The ‘coppe.cls’ file

```

573 \class
574 \def\filename{coppe.dtx}
575 \def\fileversion{v3.4}
576 \def\filedate{2024/01/24}

```



```

577 \NeedsTeXFormat{LaTeX2e}[1995/12/01]
578 \ProvidesClass{coppe}[\filedate\ \fileversion\ COPPE Dissertations and Thesis]
579 \LoadClass[12pt,a4paper,oneside]{book}
580 \RequirePackage[sort&compress]{natbib}
581 \RequirePackage{hyphenat}
582 \RequirePackage{lastpage}
583 \RequirePackage{ifthen}
584 \RequirePackage{graphicx}
585 \RequirePackage{setspace}
586 \RequirePackage{tabularx}
587 \RequirePackage{etoolbox}
588 \RequirePackage{eqparbox}
589 \RequirePackage{ltxcmds}
590 \RequirePackage[T1]{fontenc}
591 \RequirePackage[a4paper,bindingoffset=0.0cm,vcentering=true,%
592 top=2.5cm,bottom=2.5cm,left=3.0cm,right=3.0cm]{geometry}
593 \def\CoppeTeX{\rm C\kern-.05em{\sc o\kern-.025em p\kern-.025em
594 p\kern-.025em e}}\kern-.08em
595 T\kern-.1667em\lower.5ex\hbox{E}\kern-.125emX\spacefactor1000}

596 \newboolean{maledoc}
597 \setboolean{maledoc}{false}
598 %
599 % Class options.
600 % If you are writing a text in English, you must turn ‘English’ on.
601 % Otherwise, Portuguese is considered the main language.
602 \newif\if@english\@englishfalse
603 \DeclareOption{english}{\@englishtrue}
604 \DeclareOption{msc}{%
605   \newcommand{\@degree}{M.Sc.}
606   \newcommand{\@degree name}{Mestrado}
607   \newcommand{\local@degname}{Mestre}
608   \newcommand{\foreign@degname}{Master}
609   \newcommand\local@doctype{Disserta{\c c}{\~ a}o}
610   \newcommand\foreign@doctype{Dissertation}
611 }
612 \DeclareOption{dsccexam}{%
613   \newcommand{\@degree}{D.Sc.}
614   \newcommand{\@degree name}{Doutorado}
615   \newcommand{\local@degname}{Doutor}
616   \newcommand{\foreign@degname}{Doctor}
617   \setboolean{maledoc}{true}
618   \newcommand\local@doctype{Exame de Qualifica{\c c}{\~ a}o}
619   \newcommand\foreign@doctype{Qualifying Exam}
620 }
621 \DeclareOption{msccexam}{%
622   \newcommand{\@degree}{M.Sc.}
623   \newcommand{\@degree name}{Mestrado}
624   \newcommand{\local@degname}{Mestre}
625   \newcommand{\foreign@degname}{Master}
626   \setboolean{maledoc}{true}
627   \newcommand\local@doctype{Exame de Qualifica{\c c}{\~ a}o}
628   \newcommand\foreign@doctype{Qualifying Exam}
629 }
630 \DeclareOption{dsc}{%

```

```

631 \newcommand{\@degree}{D.Sc.}
632 \newcommand{\@degreename}{Doutorado}
633 \newcommand{\local@degname}{Doutor}
634 \newcommand{\foreign@degname}{Doctor}
635 \newcommand{\local@doctype}{Tese}
636 \newcommand{\foreign@doctype}{Thesis}
637 }
638 \DeclareOption{numbers}{%
639 \PassOptionsToPackage{numbers}{natbib}
640 }

```

Here is the default one-and-a-half line spacing. Users can change to double spacing by passing the `doublespacing` option.

```

641 \onehalfspacing
642 \DeclareOption{doublespacing}{%
643 \doublespacing
644 }

645 \ProcessOptions\relax
646 \if@english
647 \RequirePackage[english]{babel}
648 \else
649 \RequirePackage[english,brazilian]{babel}
650 \fi
651 \addto{\captionsenglish}{%
652 \renewcommand{\bibname}{References}
653 }

```

`\department` This macro is used to set the author's affiliation. There are twelve options which correspond to all academic units at COPPE/UFRJ. It defines the current and the foreign names of these units.

```

654 \newcommand\department[1]{%
655 \ifthenelse{\equal{#1}{PEB}}{
656 {\global\def\local@deptname{Engenharia Biom{\` e}dica}
657 \global\def\foreign@deptname{Biomedical Engineering}}{}
658 \ifthenelse{\equal{#1}{PEC}}{
659 {\global\def\local@deptname{Engenharia Civil}
660 \global\def\foreign@deptname{Civil Engineering}}{}
661 \ifthenelse{\equal{#1}{PEE}}{
662 {\global\def\local@deptname{Engenharia El{\` e}trica}
663 \global\def\foreign@deptname{Electrical Engineering}}{}
664 \ifthenelse{\equal{#1}{PEM}}{
665 {\global\def\local@deptname{Engenharia Mec{\` a}nica}
666 \global\def\foreign@deptname{Mechanical Engineering}}{}
667 \ifthenelse{\equal{#1}{PEMM}}{
668 {\global\def\local@deptname{Engenharia Metal{\` u}rgica e de Materiais}
669 \global\def\foreign@deptname{Metallurgical and Materials Engineering}}{}
670 \ifthenelse{\equal{#1}{PEN}}{
671 {\global\def\local@deptname{Engenharia Nuclear}
672 \global\def\foreign@deptname{Nuclear Engineering}}{}
673 \ifthenelse{\equal{#1}{PEN0}}{
674 {\global\def\local@deptname{Engenharia Oce{\` a}nica}
675 \global\def\foreign@deptname{Ocean Engineering}}{}
676 \ifthenelse{\equal{#1}{PPE}}{
677 {\global\def\local@deptname{Planejamento Energ{\` e}tico}

```

```

678     \global\def\foreign@deptname{Energy Planning}}{}
679 \ifthenelse{\equal{#1}{PEP}}
680   {\global\def\local@deptname{Engenharia de Produ{\c c}{\~ a}o}
681     \global\def\foreign@deptname{Production Engineering}}{}
682 \ifthenelse{\equal{#1}{PEQ}}
683   {\global\def\local@deptname{Engenharia Qu{\` i}mica}
684     \global\def\foreign@deptname{Chemical Engineering}}{}
685 \ifthenelse{\equal{#1}{PESC}}
686   {\global\def\local@deptname{Engenharia de Sistemas e Computa{\c c}{\~ a}o}
687     \global\def\foreign@deptname{Systems Engineering and Computer Science}}{}
688 \ifthenelse{\equal{#1}{PET}}
689   {\global\def\local@deptname{Engenharia de Transportes}
690     \global\def\foreign@deptname{Transportation Engineering}}{}
691 \ifthenelse{\equal{#1}{PENT}}
692   {\global\def\local@deptname{Engenharia de Nanotecnologia}
693     \global\def\foreign@deptname{Nanotechnology Engineering}}{}
694 }

\title Used to enter the title in Brazilian Portuguese.
695 \renewcommand\title[1]{%
696   \global\def\local@title{#1}%
697 }

\foreigntitle Used to enter the foreign title.
698 \newcommand\foreigntitle[1]{%
699   \global\def\foreign@title{#1}%
700 }

\advisor Defines globally the title, name and academic degree of the advisors.
701 \newcount\@advisor\@advisor0
702 \newcommand\advisor[4]{%
703   \global\@namedef{CoppeAdvisorTitle:\expandafter\the\@advisor}{#1}
704   \global\@namedef{CoppeAdvisorName:\expandafter\the\@advisor}{#2}
705   \global\@namedef{CoppeAdvisorSurname:\expandafter\the\@advisor}{#3}
706   \global\@namedef{CoppeAdvisorDegree:\expandafter\the\@advisor}{#4}
707   \global\advance\@advisor by 1
708   \ifnum\@advisor>1
709     \renewcommand\local@advisorstring{Orientadores}
710     \renewcommand\foreign@advisorstring{Advisors}
711   \fi
712 }

\examiner
713 \newcount\@examiner\@examiner0
714 \newcommand\examiner[3]{%
715   \global\@namedef{CoppeExaminer:\expandafter\the\@examiner}{#1\ #2}
716   \global\advance\@examiner by 1
717 }

\author It was redefined to allow the identification of the author's first names and surname.
718 \renewcommand\author[2]{%
719   \global\def\@authname{#1}
720   \global\def\@authsurn{#2}
721 }

```

`\date` This code makes easy to switch from dates in different languages.

```
722 \renewcommand\date[2]{%
723   \month=#1
724   \year=#2
725 }
```

`\local@monthname`

```
726 \newcommand\local@monthname{\ifcase\month\or
727   Janeiro\or Fevereiro\or Mar{\c c}\o\or Abril\or Maio\or Junho\or
728   Julho\or Agosto\or Setembro\or Outubro\or Novembro\or Dezembro\fi}
```

`\foreign@monthname`

```
729 \newcommand\foreign@monthname{\ifcase\month\or
730   January\or February\or March\or April\or May\or June\or
731   July\or August\or September\or October\or November\or December\fi}
```

`\keyword`

```
732 \newcounter{keywords}
733 \newcommand\keyword[1]{%
734   \global\@namedef{CoppeKeyword:\expandafter\the\c@keywords}{#1}
735   \global\addtocounter{keywords}{1}
736 }
```

`\freeconfig` This command allows easy changing of core class parameters.

```
737 \newcommand\freeconfig[6]{%
738   \providecommand\@degree{}
739   \renewcommand\@degree{#1}
740   \providecommand\@degreename{}
741   \renewcommand\@degreename{#2}
742   \providecommand\local@degname{}
743   \renewcommand\local@degname{#3}
744   \providecommand\foreign@degname{}
745   \renewcommand\foreign@degname{#4}
746   \providecommand\local@doctype{}
747   \renewcommand\local@doctype{#5}
748   \providecommand\foreign@doctype{}
749   \renewcommand\foreign@doctype{#6}%
750 }
751 %   \end{macrocode}
752 % \end{macro}
753 %
754 % \begin{macro}{\frontmatter}
755 % The number of pages for both frontmatter and mainmatter printed
756 % in the cataloging details page is computed by means of simple
757 % \LaTeX\ labels.
758 %   \begin{macrocode}
759 \renewcommand\frontmatter{%
760   \cleardoublepage
761   \@mainmatterfalse
762   \pagenumbering{roman}
763   \thispagestyle{empty}
764   \setcounter{page}{2}
765   \makefrontpage
```

```

766 \clearpage
767 \pagestyle{plain}
768 \ifthenelse{\boolean{maledoc}}{\}{\makecatalog}%
769 }

\mainmatter

770 \renewcommand\mainmatter{%
771 \coppe@mainBegin
772 \cleardoublepage
773 \@mainmattertrue
774 \pagestyle{plain}
775 \pagenumbering{arabic}}

\backmatter

776 \renewcommand\backmatter{%
777 \if@openright
778 \cleardoublepage
779 \else
780 \clearpage
781 \fi}
782 %

\maketitle

783 \renewcommand\maketitle{%
784 \pagenumbering{alph}
785 \ltx@ifpackageloaded{hyperref}{\coppe@hypersetup}{}%
786 \begin{titlepage}
787 \begin{flushleft}
788 \vspace*{1.5mm}
789 \setlength\baselineskip{0pt}
790 \setlength\parskip{1mm}
791 \makebox[20mm][c]{\hspace{4.8cm}\includegraphics{coppe-logo}}
792 \end{flushleft}
793 \vspace{1.05cm}
794 \begin{center}
795 \nohyphens{%
796 \if@english
797 \MakeUppercase\foreign@title
798 \else
799 \MakeUppercase\local@title
800 \fi}\par
801 \vspace*{3cm}
802 \nohyphens{\@authname\ \@authsurn}\par
803 \end{center}
804 \vspace*{2.1cm}
805 \begin{flushright}
806 \begin{minipage}{8.45cm}
807 \frontcover@maintext
808 \end{minipage}\par
809 \vspace*{7.5mm}
810 \nohyphens{%
811 \begin{tabularx}{8.45cm}[b]{@{}l@{ }>\raggedright\arraybackslash}X@{}}
812 \local@advisorstring: &
813 \count1=0

```

```

814 \toks@={}
815 \@whilenum \count1<\@advisor \do{%
816 \ifcase\count1 % same as \ifnum0=\count1
817 \toks@=\expandafter{\csname CoppeAdvisorName:\the\count1%
818 \expandafter\endcsname\expandafter\space%
819 \csname CoppeAdvisorSurname:\the\count1\endcsname\\}
820 \else
821 \toks@=\expandafter\expandafter\expandafter{%
822 \expandafter\the\expandafter\toks@%
823 \expandafter&\expandafter\space%
824 \csname CoppeAdvisorName:\the\count1\expandafter\endcsname%
825 \expandafter\space\csname CoppeAdvisorSurname:\the\count1\endcsname\\
826 }%
827 \fi
828 \advance\count1 by 1}
829 \the\toks@
830 \end{tabularx}}\par
831 \end{flushright}
832 \vspace*{\fill}
833 \begin{center}
834 \local@cityname\par
835 \local@monthname\ de \number\year
836 \end{center}
837 \end{titlepage}
838 \global\let\maketitle\relax%
839 \global\let\and\relax}

840 \newcommand\makefrontpage{%
841 \begin{center}
842 \sloppy\nohyphens{
843 \if@english
844 \MakeUppercase\foreign@title
845 \else
846 \MakeUppercase\local@title
847 \fi}\par
848 \vspace*{7mm}
849 {\@authname\ \@authsurn}\par
850 \end{center}}\par
851 \vspace*{4mm}
852 \frontpage@maintext
853 \vspace*{16mm}
854 \nohyphens{%
855 \noindent\begin{tabularx}{\textwidth}[b]{@{}l@{ }>{\raggedright\arraybackslash}X@{}}
856 \local@advisorstring: &
857 \count1=0
858 \toks@={}
859 \@whilenum \count1<\@advisor \do{%
860 \ifcase\count1 % same as \ifnum0=\count1
861 \toks@=\expandafter{\csname CoppeAdvisorName:\the\count1%
862 \expandafter\endcsname\expandafter\space%
863 \csname CoppeAdvisorSurname:\the\count1\endcsname\\}
864 \else
865 \toks@=\expandafter\expandafter\expandafter{%
866 \expandafter\the\expandafter\toks@%

```

```

867         \expandafter&\expandafter\space%
868         \csname CoppeAdvisorName:\the\count1\expandafter\endcsname%
869         \expandafter\space\csname CoppeAdvisorSurname:\the\count1\endcsname\\
870     }%
871 \fi
872 \advance\count1 by 1}
873 \the\toks@
874 \end{tabularx}\par
875 \vspace*{20mm}
876 \noindent\begin{tabularx}{\textwidth}[b]{@{}l@{ }>{\raggedright\arraybackslash}X@{}}
877     Aprovada por: &
878     \count1=0
879     \toks@={}
880     \@whilenum \count1<\@examiner \do{%
881     \ifcase\count1 % same as \ifnum0=\count1
882         \toks@=\expandafter{\csname CoppeExaminer:\the\count1%
883             \expandafter\endcsname\expandafter\\}
884     \else
885         \toks@=\expandafter\expandafter\expandafter{%
886             \expandafter\the\expandafter\toks@%
887             \expandafter&\expandafter\space%
888             \csname CoppeExaminer:\the\count1\expandafter\endcsname%
889             \expandafter\space\\
890         }%
891 \fi
892 \advance\count1 by 1}
893 \the\toks@
894 \end{tabularx}}\par
895 \vspace*{\fill}
896 \frontpage@bottomtext}

897 \newcommand\coppe@hypersetup{%
898 \begingroup
899 % changes to \toks@ and \count@ are kept local;
900 % it's not necessary for them, but it is usually the case
901 % for \count1, because the first ten counters are written
902 % to the DVI file, thus you got lucky because of PDF output
903 \toks@={} % in this special case not necessary
904 \count@=0 %
905 \@whilenum\count@<\value{keywords}\do{%
906     % * a keyword separator is not necessary,
907     %     if there is just one keyword
908     % * \csname CoppeKeyword:\the\count@\endcsname must be expanded
909     %     at least once, to get rid of the loop depended \count@
910     \ifcase\count@ % same as \ifnum0=\count@
911         \toks@=\expandafter{\csname CoppeKeyword:\the\count@\endcsname}%
912     \else
913         \toks@=\expandafter\expandafter\expandafter{%
914             \expandafter\the\expandafter\toks@
915             \expandafter;\expandafter\space
916             \csname CoppeKeyword:\the\count@\endcsname
917         }%
918 \fi
919 \advance\count@ by 1 %

```

```

920 }%
921 \edef\x{\endgroup
922   \noexpand\hypersetup{%
923     pdfkeywords={\the\toks0}%
924   }%
925 }%
926 \x
927 \hypersetup{%
928   pdfauthor={\@authname\ \@authsurn},
929   pdftitle={\local@title},
930   pdfsubject={\local@doctype\ de \@degree\ em \local@deptname\ da COPPE/UFRJ},
931   pdfcreator={LaTeX with CoppeTeX toolkit},
932   breaklinks={true},
933   raiselinks={true},
934   pageanchor={true},
935 }}

```

`\makecatalog` When the document has illustrations, it is required to insert “: il.” between the number of pages of the textual part and the page dimension. We have created a label to flag the existence of lists of figures. It is checked to be undefined using the plain \TeX command `\isundefined` [7].

```

936 \newcommand\makecatalog{%
937   \vspace*{\fill}
938   \begin{center}
939     \setlength{\fboxsep}{5mm}
940     \framebox[120mm][c]{\makebox[5mm][c]{}%
941       \begin{minipage}[c]{105mm}
942         \setlength{\parindent}{5mm}
943         \noindent\sloppy\nohyphens\@authsurn,
944         \nohyphens\@authname\par
945         \nohyphens{%
946           \if@english
947             \foreign@title%
948           \else
949             \local@title%
950           \fi/\@authname\ \@authsurn. -- \local@cityname:
951           UFRJ/COPPE, \number\year.}\par
952         \pageref{front:pageno},
953         \pageref{LastPage}
954         p.\@ifundefined{r@cat:lofflag}{\pageref{cat:lofflag}}{$29,7$cm.}\par
955         % There is an issue here. When the last entry must be split between lines,
956         % the spacing between it and the next paragraph becomes smaller.
957         % Should we manually introduce a fixed space? But how could we know that
958         % a name was split? Is this happening yet?
959         \nohyphens{%
960           \begin{tabularx}{100mm}[b]{@{}l@{ }>{\raggedright\arraybackslash}X@{}}
961             \local@advisorstring: &
962             \count1=0
963             \toks@={}
964             \@whilenum \count1<\@advisor \do{%
965               \ifcase\count1 % same as \ifnum0=\count1
966                 \toks@=\expandafter{\csname CoppeAdvisorName:\the\count1%
967                   \expandafter\endcsname\expandafter\space%
968                   \csname CoppeAdvisorSurname:\the\count1\endcsname\}}

```



```

969         \else
970         \toks@=\expandafter\expandafter\expandafter{%
971         \expandafter\the\expandafter\toks@
972         \expandafter&\expandafter\space
973         \csname CoppeAdvisorName:\the\count1\expandafter\endcsname%
974         \expandafter\space\csname CoppeAdvisorSurname:\the\count1\endcsname\\
975         }%
976     \fi
977     \advance\count1 by 1}
978     \the\toks@
979 \end{tabularx}}\par
980 \nohyphens{\local@doctype\ ({\MakeLowercase\@degreename}) --
981 UFRJ/COPPE/Programa de \local@deptname, \number\year.}\par
982 Refer{\^ e}ncias Bibliogr{\' a}ficas: p. \pageref{bib:begin} -- \pageref{bib:end}.\par
983 \count1=0
984 \count2=1
985 \nohyphens{\@whilenum \count1<\value{keywords} \do {%
986     \number\count2. \csname CoppeKeyword:\the\count1 \endcsname.
987     \advance\count1 by 1
988     \advance\count2 by 1}
989 I. \csname CoppeAdvisorSurname:0\endcsname,%
990 \ \csname CoppeAdvisorName:0\endcsname%
991 \ifthenelse{\@advisor>1}{\ \emph{et~al.}}{}}.
992 II. \local@universityname, COPPE, Programa de \local@deptname.
993 III. T{\' i}tulo.}
994 \end{minipage}}
995 \end{center}
996 \vspace*{\fill}}

```

\dedication

```

997 \newcommand\dedication[1]{
998 \gdef\@dedic{#1}
999 \cleardoublepage
1000 \vspace*{\fill}
1001 \begin{flushright}
1002 \begin{minipage}{60mm}
1003 \raggedleft \it \normalsize \@dedic
1004 \end{minipage}
1005 \end{flushright}}

```

abstract (*env.*) This is a specialization of the abstract in the article standard class.

```

1006 \newenvironment{abstract}{%
1007 \clearpage
1008 \thispagestyle{plain}
1009 \abstract@toptext\par
1010 \vspace*{8.6mm}
1011 \begin{center}
1012 \sloppy\nohyphens{\MakeUppercase\local@title}\par
1013 \vspace*{13.2mm}
1014 \@authname\ \@authsurn \par
1015 \vspace*{7mm}
1016 \local@monthname/\number\year
1017 \end{center}\par
1018 \vspace*{\fill}

```

```

1019 \noindent%
1020 \begin{tabularx}{\textwidth}[b]{@{}l@{ }}>\raggedright\arraybackslashX@{}}
1021 \local@advisorstring: &
1022 \count1=0
1023 \toks@={}
1024 \@whilenum \count1<\@advisor \do{%
1025 \ifcase\count1 % same as \ifnum0=\count1
1026 \toks@=\expandafter{\csname CoppeAdvisorName:\the\count1%
1027 \expandafter\endcsname\expandafter\space%
1028 \csname CoppeAdvisorSurname:\the\count1\endcsname\\}
1029 \else
1030 \toks@=\expandafter\expandafter\expandafter{%
1031 \expandafter\the\expandafter\toks@
1032 \expandafter&\expandafter\space
1033 \csname CoppeAdvisorName:\the\count1\expandafter\endcsname%
1034 \expandafter\space\csname CoppeAdvisorSurname:\the\count1\endcsname\\
1035 }%
1036 \fi
1037 \advance\count1 by 1}
1038 \the\toks@
1039 \end{tabularx}\par
1040 \vspace*{2mm}
1041 \noindent\local@deptstring: \local@deptname\par
1042 \vspace*{7mm}}{\vspace*{\fill}}

```

foreignabstract (env.)

```

1043 \newenvironment{foreignabstract}{%
1044 \clearpage
1045 \thispagestyle{plain}
1046 \begin{otherlanguage}{english}
1047 \foreignabstract@toptext\par
1048 \vspace*{8.6mm}
1049 \begin{center}
1050 \sloppy\nohyphens{\MakeUppercase\foreign@title}\par
1051 \vspace*{13.2mm}
1052 \@authname\ \@authsurn \par
1053 \vspace*{7mm}
1054 \foreign@monthname/\number\year
1055 \end{center}\par
1056 \vspace*{\fill}
1057 \noindent%
1058 \begin{tabularx}{\textwidth}[b]{@{}l@{ }}>\raggedright\arraybackslashX@{}}
1059 \foreign@advisorstring: &
1060 \count1=0
1061 \toks@={}
1062 \@whilenum \count1<\@advisor \do{%
1063 \ifcase\count1 % same as \ifnum0=\count1
1064 \toks@=\expandafter{\csname CoppeAdvisorName:\the\count1%
1065 \expandafter\endcsname\expandafter\space%
1066 \csname CoppeAdvisorSurname:\the\count1\endcsname\\}
1067 \else
1068 \toks@=\expandafter\expandafter\expandafter{%
1069 \expandafter\the\expandafter\toks@
1070 \expandafter&\expandafter\space

```

```

1071         \csname CoppeAdvisorName:\the\count1\expandafter\endcsname%
1072         \expandafter\space\csname CoppeAdvisorSurname:\the\count1\endcsname\
1073     }%
1074     \fi
1075     \advance\count1 by 1}
1076     \the\toks@
1077 \end{tabularx}\par
1078 \vspace*{2mm}
1079 \noindent\foreign@deptstring: \foreign@deptname\par
1080 \vspace*{7mm}}{%
1081 \end{otherlanguage}
1082 \vspace*{\fill}
1083 \global\let\@author\@empty
1084 \global\let\@date\@empty
1085 \global\let\foreign@title\@empty
1086 \global\let\foreign@title\relax
1087 \global\let\local@title\@empty
1088 \global\let\local@title\relax
1089 \global\let\author\relax
1090 \global\let\author\relax
1091 \global\let\date\relax}

```

\listoffigures

```

1092 \renewcommand\listoffigures{%
1093     \coppe@hasLof
1094     \if@twocolumn
1095         \@restonecoltrue\onecolumn
1096     \else
1097         \@restonecolfalse
1098     \fi
1099     \chapter*{\listfigurename}%
1100     \addcontentsline{toc}{chapter}{\listfigurename}%
1101     \@mkboth{\MakeUppercase\listfigurename}%
1102             {\MakeUppercase\listfigurename}%
1103     \@starttoc{lof}%
1104     \if@restonecol\twocolumn\fi
1105 }

```

\listoftables

```

1106 \renewcommand\listoftables{%
1107     \if@twocolumn
1108         \@restonecoltrue\onecolumn
1109     \else
1110         \@restonecolfalse
1111     \fi
1112     \chapter*{\listtablename}%
1113     \addcontentsline{toc}{chapter}{\listtablename}%
1114     \@mkboth{%
1115         \MakeUppercase\listtablename}%
1116         {\MakeUppercase\listtablename}%
1117     \@starttoc{lot}%
1118     \if@restonecol\twocolumn\fi
1119 }

```

\printlosymbols

```
1120 \newcommand\printlosymbols{%
1121 \renewcommand\glossaryname{\listsymbolname}%
1122 \@input@{\jobname.los}}
```

\makelosymbols

```
1123 \def\makelosymbols{%
1124 \newwrite\@losfile
1125 \immediate\openout\@losfile=\jobname.syx
1126 \newcommand\syml[3][\@bsphack\beginngroup
1127 \ifstrepty{##1}{\def\@tempsymb1{##2=}}{\def\@tempsymb1{##1=}}%
1128 \@sanitize%
1129 \@wrls{\@tempsymb1}{##2}{##3}\typeout%
1130 {Writing index of symbols file \jobname.syx}%
1131 \let\makelosymbols\@empty%
1132 }%
1133 \@onlypreamble\makelosymbols

1134 \AtBeginDocument{%
1135 \ifpackageloaded{hyperref}{%
1136 \newcommand\@wrls[3]{%
1137 \protected@write\@losfile{%
1138 {\string\indexentry{#1[#2] #3|hyperpage}{\thepage}}%
1139 \endgroup%
1140 \@esphack}}{%
1141 \newcommand\@wrls[3]{%
1142 \protected@write\@losfile{%
1143 {\string\indexentry{#1[#2] #3}{\thepage}}%
1144 \endgroup%
1145 \@esphack}}}%

```

\printloabbreviations

```
1146 \newcommand\printloabbreviations{%
1147 \renewcommand\glossaryname{\listabbreviationname}%
1148 \@input@{\jobname.lab}}
```

\makeloabbreviations

```
1149 \def\makeloabbreviations{%
1150 \newwrite\@labfile
1151 \immediate\openout\@labfile=\jobname.abx
1152 \newcommand\abbrev[3][\@bsphack\beginngroup
1153 \ifstrepty{##1}{\def\@tempsymb1{##2=}}{\def\@tempsymb1{##1=}}%
1154 \@sanitize%
1155 \@wrlab{\@tempsymb1}{##2}{##3}\typeout%
1156 {Writing index of abbreviations file \jobname.abx}%
1157 \let\makeloabbreviations\@empty
1158 }
1159 \@onlypreamble\makeloabbreviations

1160 \AtBeginDocument{%
1161 \ifpackageloaded{hyperref}{%
1162 \newcommand\@wrlab[3]{%
1163 \protected@write\@labfile{%
1164 {\string\indexentry{#1[#2] #3|hyperpage}{\thepage}}%

```

```

1165 \endgroup%
1166 \@esphack}}{%
1167 \newcommand\@wrlab[3]{%
1168 \protected@write\@labfile{%
1169 {\string\indexentry{#1[#2] #3}{\thepage}}%
1170 \endgroup%
1171 \@esphack}}}%

1172 %%% \AtBeginDocument{%
1173 %%% \ifpackageloaded{hyperref}{%
1174 %%% \def\@wrlab#1#2{%
1175 %%% \protected@write\@labfile{%
1176 %%% {\string\indexentry{[#1] #2|hyperpage}{\thepage}}%
1177 %%% \endgroup
1178 %%% \@esphack}}{%
1179 %%% \def\@wrlab#1#2{%
1180 %%% \protected@write\@labfile{%
1181 %%% {\string\indexentry{[#1] #2}{\arabic{page}}}%
1182 %%% \endgroup
1183 %%% \@esphack}}}%

1184 % Some macros used to generate cataloging information.
1185 \AtBeginDocument{%
1186 \ltx\ifpackageloaded{hyperref}{
1187 \def\coppe@bibEnd{%
1188 \immediate\write\@auxout{%
1189 \string\newlabel{bib:end}{\arabic{page}}{page.\arabic{page}}}}}%
1190 \def\coppe@bibBegin{%
1191 \immediate\write\@auxout{%
1192 \string\newlabel{bib:begin}{\arabic{page}}{page.\arabic{page}}}}}%
1193 \def\coppe@mainBegin{%
1194 \immediate\write\@auxout{%
1195 \string\newlabel{front:pageno}{\Roman{page}}{page.\roman{page}}}}}%
1196 \def\coppe@hasLof{%
1197 \immediate\write\@auxout{%
1198 \string\newlabel{cat:lofflag}{:~il.;}{page.\roman{page}}}}}%
1199 }{%
1200 \def\coppe@bibEnd{%
1201 \immediate\write\@auxout{%
1202 \string\newlabel{bib:end}{\arabic{page}}}}}%
1203 \def\coppe@bibBegin{%
1204 \immediate\write\@auxout{%
1205 \string\newlabel{bib:begin}{\arabic{page}}}}}%
1206 \def\coppe@mainBegin{%
1207 \immediate\write\@auxout{%
1208 \string\newlabel{front:pageno}{\Roman{page}}}}}%
1209 \def\coppe@hasLof{%
1210 \immediate\write\@auxout{%
1211 \string\newlabel{cat:lofflag}{:~il.;}}}%
1212 }%
1213 }

1214 \newdimen\bibindent%
1215 \setlength\bibindent{1.5em}%
1216 \renewenvironment{thebibliography}[1]%
1217 {\onehalfspacing%

```

```

1218 \chapter*{\bibname}%
1219 \addcontentsline{toc}{chapter}{\bibname}%
1220 \coppe@bibBegin
1221 \list{\@biblabel{\@arabic\c@enumiv}}%
1222     {\setlength{\labelwidth}{0ex}%
1223      \setlength{\leftmargin}{9.0ex}%
1224      \setlength{\itemindent}{-9.0ex}%
1225      \advance\leftmargin\labelsep%
1226      \@openbib@code%
1227      \usecounter{enumiv}%
1228      \let\p@enumiv\@empty%
1229      \renewcommand\theenumiv{\@arabic\c@enumiv}}%
1230 \sloppy%
1231 \clubpenalty4000%
1232 \@clubpenalty \clubpenalty%
1233 \widowpenalty4000%
1234 \sfcode'\.\@m}%
1235 {\def\@noitemerr%
1236   {\@latex@warning{Empty ‘thebibliography’ environment}}}%
1237 \coppe@bibEnd
1238 \endlist}

```

longquote (*env.*)

```

1239 \newlength{\recuolongquote}%
1240 \setlength{\recuolongquote}{4cm}%
1241 \newenvironment*{longquote}[1][default]{%
1242   \list{}%
1243   \footnotesize%
1244   \addtolength{\leftskip}{\recuolongquote}%
1245   \item[]%
1246   \singlespacing%
1247   \ifthenelse{\not\equal{#1}{default}}{\itshape\selectlanguage{#1}}{}%
1248 }{\endlist}%

1249 \newenvironment{theglossary}{%
1250   \if@twocolumn%
1251     \@restonecoltrue\onecolumn%
1252   \else%
1253     \@restonecolfalse%
1254   \fi%
1255   \@mkboth{\MakeUppercase\glossaryname}%
1256   {\MakeUppercase\glossaryname}%
1257   \chapter*{\glossaryname}%
1258   \addcontentsline{toc}{chapter}{\glossaryname}
1259   \list{}
1260   {\setlength{\listparindent}{0in}%
1261    \setlength{\labelwidth}{1.0in}%
1262    \setlength{\leftmargin}{1.5in}%
1263    \setlength{\labelsep}{0.5in}%
1264    \setlength{\itemindent}{0in}}%
1265   \sloppy}%
1266   {\if@restonecol\twocolumn\fi%
1267 \endlist}
1268 %

```

```

1269 \renewenvironment{theindex}{%
1270   \if@twocolumn
1271     \@restonecolfalse
1272   \else
1273     \@restonecoltrue
1274   \fi
1275   \twocolumn[\@makeschapterhead{\indexname}]%
1276   \@mkboth{\MakeUppercase\indexname}%
1277   {\MakeUppercase\indexname}%
1278   \thispagestyle{plain}\parindent\z@
1279   \addcontentsline{toc}{chapter}{\indexname}
1280   \parskip\z@ \@plus .3\p@\relax
1281   \columnseprule \z@
1282   \columnsep 35\p@
1283   \let\item\@idxitem}
1284   {\if@restonecol\onecolumn\else\clearpage\fi}
1285 \if@english
1286   \newcommand\listabbreviationname{List of Abbreviations}
1287   \newcommand\listsymbolname{List of Symbols}
1288   \newcommand\glossaryname{Glossary}
1289 \else
1290   \newcommand\listabbreviationname{Lista de Abreviaturas}
1291   \newcommand\listsymbolname{Lista de S{\` i}mbolos}
1292   \newcommand\glossaryname{Gloss{\` a}rio}
1293 \fi
1294 %
1295 \newcommand\local@advisorstring{Orientador}
1296 \newcommand\foreign@advisorstring{Advisor}
1297 \ifthenelse{\boolean{maledoc}}{%
1298   \newcommand\local@approvedname{Examinado por}%
1299 }{%
1300   \newcommand\local@approvedname{Examinada por}%
1301 }
1302 \newcommand\local@universityname{Universidade Federal do Rio de Janeiro}
1303 \newcommand\local@deptstring{Programa}
1304 \newcommand\foreign@deptstring{Department}
1305 \newcommand\local@cityname{Rio de Janeiro}
1306 \newcommand\local@statename{RJ}
1307 \newcommand\local@countryname{Brasil}
1308 %
1309 \newcommand\frontcover@maintext{
1310   \sloppy\nohyphens{\local@doctype\ de \@degree\name\
1311   \ifthenelse{\boolean{maledoc}}{apresentado}{apresentada}
1312   ao Programa de P{\` o}s-gradua{\c c}{\` a}o em \local@deptname,
1313   COPPE, da \local@universityname, como parte dos requisitos
1314   necess{\` a}rios {\` a} obten{\c c}{\` a}o do t{\` i}tulo de
1315   \local@degname\ em \local@deptname.}
1316 }
1317 %
1318 \newcommand\frontpage@maintext{
1319   \noindent {\MakeUppercase\local@doctype}
1320   \ifthenelse{\boolean{maledoc}}{SUBMETIDO}{SUBMETIDA}
1321   \sloppy\nohyphens{AO CORPO DOCENTE DO INSTITUTO ALBERTO LUIZ COIMBRA
1322   DE P{\` O}S-GRADUA{\c C}{\` A}O E PESQUISA DE ENGENHARIA DA

```

```

1323 UNIVERSIDADE FEDERAL DO RIO DE JANEIRO COMO PARTE DOS REQUISITOS
1324 NECESS{\` A}RIOS PARA A OBTEN{\c C}{\~ A}O DO GRAU DE
1325 {\MakeUppercase\local@degname} EM CI{\^E}NCIAS EM
1326 {\MakeUppercase\local@deptname.\par}}%
1327 }
1328 %
1329 \newcommand\frontpage@bottomtext{%
1330 \begin{center}
1331 {\MakeUppercase{\local@cityname, \local@statename\ -- \local@countryname}}\par
1332 {\MakeUppercase\local@monthname\ DE \number\year}
1333 \end{center}}%
1334 }
1335 %
1336 \newcommand\abstract@toptext{%
1337 \noindent Resumo \ifthenelse{\boolean{maledoc}}{do}{da}
1338 \local@doctype\ \ifthenelse{\boolean{maledoc}}{apresentado}{apresentada}
1339 \sloppy\nohyphens{{\` a} COPPE/UFRJ como parte dos requisitos
1340 necess{\` a}rios para a obten{\c c}{\~ a}o do grau de
1341 \local@degname\ em Ci{\^ e}ncias (\@degree)}
1342 }
1343 \newcommand\foreignabstract@toptext{%
1344 \noindent \sloppy\nohyphens{Abstract of \foreign@doctype\ presented to
1345 COPPE/UFRJ as a partial fulfillment of the requirements for the
1346 degree of \foreign@degname\ of Science (\@degree)}
1347 }
1348 %
1349 </class>
1350 <*glossary>
1351 actual '='
1352 quote '!'
1353 level '>'
1354 %%% delim_0 " , p. "
1355 delim_0 "\\dotfill "
1356 lethead_flag 0
1357 headings_flag 0
1358 preamble
1359 "\n\\begin{theglossary}\n \\makeatletter"
1360 postamble
1361 "\n \\end{theglossary}\n"
1362 </glossary>

```

Acknowledgments

Thanks to all COPPE_{TEX} users who have reported their experience with this class. We also thank to professor Fernando Lizarralde and Heiko Oberdiek for their helpful comments. The authors would like to thank the National Council for Scientific and Technological Development (CNPq) of Brazil.

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- [6] William Strunk, Jr. and E. B. White. *The Elements of Style*. Macmillan, 3 edition, 1979.
- [7] T_EX Frequently Asked Questions.

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols	<code>\@labfile</code> 1150, 1322, 1324, 1340	
<code>\@advisor</code>	1151, 1163, 1168, 1175, 1180	
. 701, 703, 704,		A
705, 706, 707,	<code>\@losfile</code> 1124,	<code>\abbrev</code> 531,
708, 815, 859,	1125, 1137, 1142	532, 533, 534,
964, 991, 1024, 1062	<code>\@tempsymb1</code> ... 1127,	535, 536, 537, 1152
<code>\@authname</code> ... 719,	1129, 1153, 1155	<code>abstract (env.)</code> ... <u>1006</u>
802, 849, 928,	<code>\@wrlab</code> . 1155, 1162,	<code>\abstract@top</code> text .
944, 950, 1014, 1052	1167, 1174, 1179 1009, 1336
<code>\@author</code> 1083	<code>\@wrlas</code> 1129, 1136, 1141	<code>\addto</code> 651
<code>\@authsurn</code> ... 720,	<code>_</code> 76, 294,	<code>\addtolength</code> 1244
802, 849, 928,	427, 454, 578,	<code>\advisor</code> . 20, 21, 22, <u>701</u>
943, 950, 1014, 1052	715, 757, 802,	<code>\alpha</code> 521, 527
<code>\@date</code> 1084	835, 849, 928,	<code>\appendixname</code> 559
<code>\@dedic</code> 998, 1003	930, 950, 980,	<code>\arraybackslash</code> ...
<code>\@degree</code> 605,	990, 991, 1014, 811, 855,
613, 622, 631,	1052, 1310,	876, 960, 1020, 1058
738, 739, 1341, 1346	1315, 1331,	<code>\author</code>
<code>\@degree name</code> 606, 614,	1332, 1338,	19, <u>718</u> , 1089, 1090
623, 632, 740,	1341, 1344, 1346	<code>\autoref</code> .. 158, 181,
741, 930, 980, 1310	<code>\~</code> ... 418, 420, 422,	196, 229, 247, 284
<code>\@englishfalse</code> 602	426, 453, 517,	
<code>\@englishtrue</code> 603	519, 542, 609,	B
<code>\@examiner</code>	618, 627, 680,	<code>\backmatter</code> ... 544, <u>776</u>
. 713, 715, 716, 880	686, 1312, 1314,	<code>\beta</code> 521, 523

\bottomrule ... 210, 243, 260, 280, 475		
C		
\c@keywords 734		
\caption .. 151, 162, 186, 200, 233, 251, 272, 289, 426, 453, 502, 512		
\captionseenglish .. 651		
\cite 138, 435, 437, 438, 439, 440, 441, 443, 444, 445, 447, 462, 464, 465, 466, 467, 468, 470, 471, 472, 474		
\citep 141		
\citet 141, 435, 437, 438, 439, 440, 442, 443, 444, 446, 447, 462, 464, 465, 466, 467, 469, 470, 471, 473, 474		
\coppe@bibBegin 1190, 1203, 1220		
\coppe@bibEnd 1187, 1200, 1237		
\coppe@hasLof 1093, 1196, 1209		
\coppe@hypersetup 785, 897		
\coppe@mainBegin 771, 1193, 1206		
\CoppeTeX 593		
D		
\date 30, 722, 1091		
\dedication 39, 997		
\department 29, 654		
E		
\endfirsthead 291		
\endfoot 299		
\endhead 296		
\endlastfoot 304		
environments:		
abstract 1006		
foreignabstract 1043		
longquote 1239		
\examiner 24, 25, 26, 27, 28, 713		
F		
\footnote 99, 105		
\foreign@advisorstring .. 710, 1059, 1296		
\foreign@degname .. . 608, 616, 625, 634, 744, 745, 1346		
\foreign@deptname 657, 660, 663, 666, 669, 672, 675, 678, 681, 684, 687, 690, 693, 1079		
\foreign@deptstring 1079, 1304		
\foreign@doctype .. . 610, 619, 628, 636, 748, 749, 1344		
\foreign@monthname 729, 1054		
\foreign@title 699, 797, 844, 947, 1050, 1085, 1086		
foreignabstract (env.) 1043		
\foreignabstract@toptext 1047, 1343		
\foreign@title .. 18, 698		
\freeconfig 737		
\frontcover@maintext 807, 1309		
\frontmatter 38, 754, 759		
\frontpage@bottomtext 896, 1329		
\frontpage@maintext 852, 1318		
G		
\glossaryname . 1121, 1147, 1255, 1256, 1257, 1258, 1288, 1292		
I		
\if@english 602, 646, 796, 843, 946, 1285		
\if@openright 777		
\ifstrempy . 1127, 1153		
\itshape 1247		
K		
\keyword . 32, 33, 34, 732		
L		
\leftskip 1244		
\listabbreviationname .. 1147, 1286, 1290		
\listoffigures 58, 1092		
\listoftables . 59, 1106		
\listsymbolname 1121, 1287, 1291		
\local@advisorstring 709, 812, 856, 961, 1021, 1295		
\local@approvedname 1298, 1300		
\local@cityname ... 834, 950, 1305, 1331		
\local@countryname 1307, 1331		
\local@degname 607, 615, 624, 633, 742, 743, 1315, 1325, 1341		
\local@deptname 656, 659, 662, 665, 668, 671, 674, 677, 680, 683, 686, 689, 692, 930, 981, 992, 1041, 1312, 1315, 1326		
\local@deptstring 1041, 1303		
\local@doctype 609, 618, 627, 635, 746, 747, 930, 980, 1310, 1319, 1338		
\local@monthname .. 726, 835, 1016, 1332		
\local@statename 1306, 1331		
\local@title 696, 799, 846, 929, 949, 1012, 1087, 1088		
\local@universityname .. 992, 1302, 1313		
longquote (env.) .. 1239		
M		
\mainmatter 63, 770		
\makecatalog .. 768, 936		
\makefrontpage 765, 840		
\makeloabbreviations 14, 1149		
\makelosymbols 13, 1123		
\maketitle 36, 783		

<code>\midrule</code>	205, 239, 257, 277, 463	738, 740, 742, 744, 746, 748	<code>\singlespacing</code> . . .	1246
<code>\multicolumn</code> 293, 298, 302			<code>\subsection</code>	225
			Q	<code>\syml</code> 118, 119, 522,	
			<code>\quote</code>	523, 524, 525,	
				526, 527, 528, 1126	
	N		R	T	
<code>\newif</code>	602	<code>\raggedright</code> 811, 855,		<code>\tablename</code>	294
<code>\newlength</code>	1239	876, 960, 1020, 1058		<code>\tableofcontents</code> . .	57
<code>\node</code>	492, 495	<code>\recuolongquote</code> . . .		<code>\thetable</code>	294
<code>\not</code>	1247	. . . 1239, 1240, 1244		<code>\title</code>	17, 695
	P	<code>\resizebox</code> . . .	247, 253	<code>\toprule</code>	203,
<code>\printloabbreviations</code>		S		237, 255, 275, 461	
.	61, 1146	<code>\section</code> 93, 101, 125,			
<code>\printlosymbols</code> 60, 1120		156, 194, 214, 519		U	
<code>\providecommand</code> . . .		<code>\selectlanguage</code> . .	1247	<code>\url</code>	70

Change History

v0.0	Matching the new rules.	1
General: Creation Date.	1	<code>\advisor</code> : Advisors, co-advisors, co-co-advisors, etc., all of them are simply considered advisors. 19
v0.1	General: Documentation:	
bibliography fixed, title translation.	1	
Sourceforge submission.	1	
v0.2	General: Unification of the code for the list of symbols and abbreviations.	1
v0.3	General: Added ‘draft’ option.	1
<code>\maketitle</code> : Added number of examiners test.	22	
Generalization.	22	
v0.4	General: Beta documentation.	1
v0.5	<code>abstract</code> : Changed from macro to environment.	26
<code>\backmatter</code> : Added mainmatter pages counter.	21	
<code>foreignabstract</code> : Changed from macro to environment.	27	
v1.0	General: First COPPE \TeX release.	1
v2.0	General: COPPE \TeX release 2.0.	1
v2.1	General: COPPE \TeX release 2.1:	
	Matching the new rules.	1
	<code>\advisor</code> : Advisors, co-advisors, co-co-advisors, etc., all of them are simply considered advisors. 19	
	v2.2	
	General: Matching new guidelines, including new logo.	1
	v2.2.2	
	General: Fixed some text constants in .bib and documented it here. 1	
	v3.0	
	General: Added support for monographs in English.	18
	New approval page layout.	23
	<code>\department</code> : Added new course on Nanotechnology.	19
	<code>\examiner</code> : Examiners expansion without degree.	19
	v3.1	
	<code>\department</code> : Included a sort key in syml	19
	v3.2	
	General: Fixed version problem between cls and dtx.	1
	v3.3	
	General: Extend abbrev to work like symb and accept a sorting key . 1	
	v3.4	
	General: Some examples for figures, tables, longtables, etc. . 1	