# A Report Template for Huazhong University of Science and Technology: the hustreport class \*

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<sup>\*</sup>This document corresponds to hustreport.cls v1.0, dated 2013/07/01.

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# **I** Introduction

This is a report template for Huazhong University of Science & Technology. This template is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

The whole project is published under LPPL v1.3 License at GitHub. 中文使用说明见 Part II。

English version instruction is in Part III.

### II 中文使用说明

### 1 使用必要条件

- 1. 安装最新版本的 TeXLive (推荐) 或 MiKTeX。因为未及时更新的宏包可能存在未修复的 bug,请确保所有宏包都更新至最新。
- 2. 安装如下中文字体1:
  - a) AdobeSongStd-Light
  - b) AdobeKaitiStd-Regular
  - c) AdobeHeitiStd-Regular
  - d) AdobeFangsongStd-Regular



如果使用LuaT<sub>E</sub>X,安装字体之后需运行命令mkluatexfontdb 生成字体索引。

### 2 安装

#### 2.1 安装到本地

使用如下命令即可安装本模板到本地:

make install

如需卸载,则使用如下命令:

make uninstall

对于没有安装 Make 的 Windows 系统用户,可以使用如下命令安装:

makewin32.bat install

如需卸载,则使用如下命令:

makewin32.bat uninstall

虽然 makewin32.bat 表现与 Makefile 极其相似,但是还是强烈建议你安装 Make,对于 Windows 用户可以在这里下载。

<sup>&</sup>lt;sup>1</sup>本模板所用到的英文字体 Tex Gyre Termes, Droid Sans 和 CMU Typewriter Text 均默 认安装于 TeXLive 和 MiKTeX 中。

#### 免安装使用 2.2

如果你希望临时使用本模板、而非安装到本地供长期使用。使用如下命令 解压模板文件:

make unpack

对于没有安装 Make 的 Windows 系统用户,则使用如下命令解压:

makewin32.bat unpack

再将 hustreport 目录下的如下文件拷贝到你 TeX 工程根目录下即可:

- hustreport.cls
- hust-title.eps
- hust-title.pdf

#### 基本用法 3



本文档只能使用 XTIATEX 或 LuaIATEX (推荐) 编译。

在源文件开头处选择加载本文档类型,即可使用本模板,如下所示:

\documentclass[language=chinese] {hustreport}

#### 3.1 文档类型选项

加载本文档类型时,有如下三个选项提供选择。

format format =  $\langle draft | final \rangle$ 

提交草稿选择 draft 选项, 提交最终版选 final 选项。其中草稿正文页包括页 眉("华中科技大学研究生院")、页眉修饰线(单线)、页脚(页码)和页脚修 饰线(单线)。而最终版正文页不包括页眉、页眉修饰线和页脚修饰线,仅包含 页脚(页码)。如果不指定,默认设置为final。

category

category =

 $\langle \textit{none} \mid \textit{literature-survey} \mid \textit{thesis-proposal} \mid \textit{academic-report} \mid \textit{midterm-progress} \mid \textit{practice} \rangle$ 指定报告种类,它将通过设置字段\HUST@categoryname来影响封面处的标题。 各个不同的选项产生的效果见表 1。你也可以通过命令\categoryname 设置该 字段。如果不指定,默认设置为 none。

language = \language = \language | english \rangle

指定论文语言。如果不指定、默认设置为 chinese。

Table 1: category 选项的作用

| 选项                | 中文环境下字段            | 英文环境下字段            |
|-------------------|--------------------|--------------------|
| 延坝                | \HUST@categoryname | \HUST@categoryname |
| none              |                    |                    |
| literature-survey | 文献综述               | Literature Survey  |
| thesis-proposal   | 选题                 | Thesis Proposal    |
| academic-report   | 学术报告               | Academic Report    |
| midterm-progress  | 论文中期进展             | Midterm Progress   |
| practice          | 实践环节               | Practice           |

# 3.2 基本字段设置

模板中定义一些命令用于设置文档中的字段。

| \title       | \title $\{\langle title \rangle\}$<br>用于设定标题。              |
|--------------|--|
| \author      | \author{\langle author \rangle} 用于设定作者名。                   |
|              | \major{\langle major \rangle \} 用于设定专业。                    |
| \advisor     | \advisor $\{\langle advisor \rangle\}$<br>用于设定导师。          |
| \department  | \department{\department}} 用于设定院系。                          |
| \stuno       | \stuno $\{\langle stduent\ id \rangle\}$ 用于设定学号。           |
| categoryname | \categoryname{\langle category name \rangle} 用于设定封面处的文档种类。 |
| \abstract    | $\abstract{\langle abstract \rangle}$ 用于设定摘要。              |
| \keywords    | \keywords{\langle keywords \rangle} 用于设定关键字。               |

#### 其它基本命令 3.3

下面来介绍其它基本命令。

\frontmatter \mainmatter

\backmatter

这一组命令用于设定文档的状态、改变样式,其具体使用见简单示例。\frontmatter 用在文档最开始, 表明文档的前言部分 (如封面, 摘要, 目录等) 的开始。 \mainmatter 表示文档正文的开始。\backmatter 表示文档正文的结束。

\maketitle

\maketitle 和\makecover 作用相同,用于生成封面和版权页面。

\makecover

\makeabstract 用于生成摘要页面。

\tableofcontents 用于生成目录。

ack

ack 环境用于致谢页面。使用方法如下:

\begin{ack}

<content>

\end{ack}

\bibliography

\bibliography $\{\langle .bib \ file \rangle\}$ 

用于生成参考文献。

appendix

appendix 环境用于附录环境。你可以将附录置于 appendix 环境中,如:

\begin{appendix}

<content>

\end{appendix}

\appendix 或者使用\appendix代表后文均为附录,如:

\appendix

<content>

\listoffigures \listoftables

这两个命令分别用于生成图片和表格索引,可以根据要求在论文前言中使用或 附录中使用。

publications

publications 环境用于已发表论文页面。一般用于附录中。使用上同 enumerate 环境。如下:

```
\begin{publications}
    \item <thesis>
    <...>
\end{publications}
```

\TurnOffTabFontSetting \TurnOnTabFontSetting

因为模板中设定了表格的行距和字号,使得使用中无法临时自定义表格的行距和字号。故提供两个命令用于关闭和开启默认表格的行距和字号设置。比如你如果需要输出一个自己定义字号的表格,可以使用如下示例:

 $\ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{$\sim$}} \ensuremath{\m$ 

用于生成邮箱地址。如\email{name@example.com}会生成如下效果的地址: name@example.com。

# 4 简单示例

如下为一个使用本模板的简单示例。更完整的例子请见hustreport-zh-example.tex 文件,其效果见hustreport-zh-example.pdf。

```
| \documentclass[category=practice,language=chinese]{hustreport}
| stuno{你的学号}
| \title{标题}
| \author{作者名}
| \major{专业}
| \advisor{导师}
| \department{院系}
| \department{院系}
| \keywords{关键字}
| \begin{document}
```

```
\frontmatter
  \maketitle
  \makeabstract
18 \tableofcontents
19 \listoffigures
20 \listoftables
  \mainmatter
  %% 正文
25 \backmatter
27 \begin{ack}
28 %% 致谢
29 \end{ack}
  \bibliography{参考文献.bib文件}
  \appendix
32
34 \begin{publications}
35 %% 发表过的论文列表
36 \end{publications}
  %% 附录剩余部分
  \end{document}
```

# 5 预设宏包介绍

本模板中预设了一些宏包,下面对其进行简单介绍。

- algorithm2e 算法环境。
- enumitem 自定义列表环境的式样。
- fancynum 用于将大数每三位断开。
- listings 代码环境。如需更好的代码高亮可以使用 minted 宏包。
- longtable 跨页的超长表格环境。
- Itxtable longtable 环境和 tabularx 环境的合并。
- multirow 用于表格中合并行。
- overpic 用于在图片上层叠其他内容。
- tabularx 扩展到表格环境。
- xy-pic 用于绘制简单图形。如需更高级功能可以使用 tikz 宏包。
- zhnumber 用于生成中文数字。

# 6 高级设置

#### 6.1 切换字体

模板正文字体为宋体 (AdobeSongStd-Light),同时我们提供如下命令切换中文字体:

# **III** English Version Instruction

# 1 Requirement

Install the latest version of TeXLive(Recommend) or MiKTeX. Please ensure that all the packages are up-to-date.

#### 2 Installation

#### 2.1 Install into local

Use the command below to install this template into local.

```
make install
```

If you need uninstall it, use the command below.

```
make uninstall
```

For Windows User who don't install Make, use the command below to install.

```
makewin32.bat install
```

If you need uninstall it, use the command below.

```
makewin32.bat uninstall
```

Although makewin32.bat behaves much like Makefile, I still recommend you install Make into your Windows. You can download it from here.

#### 2.2 Use without installation

If you want to use this template temporary rather than installing it into local for long term use. Run below command to unpack the package.

```
make unpack
```

For Windows User who don't install Make, use the command below to unpack the package.

```
makewin32.bat unpack
```

Then copy the following files from directory hustreport into your TEX project root directory.

- hustreport.cls
- hust-title.eps
- hust-title.pdf

### 3 Usage



This template can only be compiled by XHETEX orLualETEX(Recommend).

Insert below code in the top of source code to use this template:

\documentclass[language=english]{hustreport}

#### 3.1 Option

There're three options available when use this template.

format format =  $\langle draft | final \rangle$ 

If format is set to final, the header will be removed. This option is only valid if language is set to chinese. The default value is final.

language =  $\langle chinese \mid english \rangle$ 

Set what language is used in the document. The default value is chinese.

category

category =

\( none | literature-survey | thesis-proposal | academic-report | midterm-progress | practice \)
Set the category of the report. It will influence the title of document, see
Table 2. You also can set it manually by the command \( \categoryname \). The
default value is none.

Table 2: Title under different category option

| Option            | In Chinese mode    | In English mode    |
|-------------------|--------------------|--------------------|
| Option            | \HUST@categoryname | \HUST@categoryname |
| none              |                    |                    |
| literature-survey | 文献综述               | Literature Survey  |
| thesis-proposal   | 选题                 | Thesis Proposal    |
| academic-report   | 学术报告               | Academic Report    |
| midterm-progress  | 论文中期进展             | Midterm Progress   |
| practice          | 实践环节               | Practice           |

#### 3.2 Variables setting

There're some commands which are used to set the variables for the thesis.

\title \title $\{\langle title \rangle\}$ 

Set title.

\author \author $\{\langle author \rangle\}$ 

Set author.

 $\mbox{major } \mbox{major} \{\mbox{\it major}\}$ 

Set your major.

 $\verb| \advisor | \advisor{ | (advisor)|}|$ 

Set your advisor.

 $\department \department{\langle department \rangle}$ 

Set your department.

 $\star \$ 

Set your student ID.

 $\colonerge{categoryname} \colonerge{category name}$ 

Set the category name in the titlepage.

 $\abstract \abstract{\langle abstract \rangle}$ 

Put your abstract.

\keywords  $\langle keywords \rangle$ 

Put your keywords.

#### 3.3 Other commands

\frontmatter Used to determine the different part of document. You can see the example \mainmatter at section 4.

\backmatter

\maketitle \maketitle and \makecover are the same. Used to create the title page.

\makecover

\makeabstract Used to create abstract page.

\tableofcontents Used to create table of contents.

ack

The ack environment is used to create acknowledge page.

```
\begin{ack}
    <content>
\end{ack}
```

\bibliography

\bibliography $\{\langle .bib \ file \rangle\}$ 

Used to create bibliography page.

appendix

The appendix environment is for appendix of course. Used like this:

```
\begin{appendix}
    <content>
\end{appendix}
```

\appendix Or simple use \appendix to indicate that the rest of document are all in appendix, like this:

```
\appendix
<content>
```

\listoftables

\listoffigures Create the index for all the figures and tables separately.

publications

The publications environment is where you list all of your published thesises. It's usually putted in appendix.

```
\begin{publications}
    \item <thesis>
    <...>
\end{publications}
```

```
\TurnOffTabFontSetting
\TurnOnTabFontSetting
```

This template has set the font size and line spread for all the tables which makes it's impossible to change font format temporary in one table. So it provides these to command to temporary disable or enable default font setting in table. For example, if you want to change table font size, you can use the code like this:

 $\ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{$\sim$}} \ensuremath{\m$ 

A command to display email address. For example, \email{name@example.com} would look like this: name@example.com.

# 4 Simple example

Below is a simple example of using this template. For a complete example see hustreport-en-example.tex which will generate hustreport-en-example.pdf.

```
1 \documentclass[category=practice,language=english]{hustreport}
2
3 \title{your title}
4 \author{your name}
5 \stuno{your student number}
6 \advisor{your advisor}
7 \major{your major}
8 \department{your department}
9
10 \abstract{the abstract}
11 \keywords{the keywords}
12
13 \begin{document}
14
15 \frontmatter
16 \maketitle
17 \makeabstract
```

```
18 \tableofcontents
19 \listoffigures
20 \listoftables
21 \mainmatter
23 %% main body
25 \backmatter
27 \begin{ack}
28 %% acknowledge
\geq \frac{end}{ack}
30 \bibliography{.bib file}
  \appendix
34 \begin{publications}
35 %% your publications
  \end{publications}
  %% rest of appendix
  \end{document}
```

# 5 Introduction to some packages used in the template

Here's a list of some packages used in the template.

- algorithm2e For display algorithm.
- enumitem For set the style of enumerate, itemize and description environment.
- fancynum Display the really big number.
- listings For display the highlighted code. If you need better quality, use the package minted.
- longtable Create a very long table.
- Itxtable Combine the features of longtable and tabularx.
- multirow Combine multi-rows in table.
- overpic Put something over a picture,
- tabularx A better table environment.
- xy-pic To draw some picture. If you need more advanced features, use the package tikz.

# IV Implementation

```
1 (*class)
2 \RequirePackage{ifthen}
     Process Options
 1
    Use xkeyval to process options.
3 \RequirePackage{xkeyval}
    Option format.
4 \newif\ifHUST@finalformat
  \HUST@finalformattrue
6 \DeclareOptionX{format}[final]{
    \left\{ \frac{\#1}{final} \right\}
      \HUST@finalformattrue
    }{
      \ifthenelse{\equal{#1}{draft}}{
10
        \HUST@finalformatfalse
      }{
12
        \ClassError{hustreport}
        {Option format can only be 'final' or 'draft'}
        {Try to remove option format^^J}
      }
    }
17
18 }
    Option language.
19 \gdef\HUST@language{chinese}
  \DeclareOptionX{language}[chinese]{
    \ifthenelse{\equal{#1}{chinese} \OR \equal{#1}{english}}{
21
      \gdef\HUST@language{#1}
22
    }{
23
      \ClassError{hustreport}
24
      {Option language can only be 'chinese' or 'english'}
25
      {Try to remove option language^^J}
    }
28 }
    Option degree.
```

29 \gdef\HUST@degree{ms}

```
\DeclareOptionX{degree}[ms]{
   \gdef\HUST@degree{#1}
32
   }{
33
      \ClassError{hustreport}
34
       {Option degree can only be 'ms', 'me' or 'phd'}
35
       {Try to remove option degree^^J}
   }
38 }
   Option category.
39 \gdef\HUST@category{none}
40 \DeclareOptionX{category}[none]{
   \ifthenelse{\equal{#1}{none} \OR \equal{#1}{literature-survey} \OR \equal{#1}{the-
 tice}}{
     \gdef\HUST@category{#1}
   }{
43
     \ClassError{hustreport}
44
     {Option category can only be 'none', 'literature-survey', 'thesis-proposal', 'ac
     {Try to remove option category^^J}
   }
47
48 }
   Process options and load class book.
49 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}
50 \ProcessOptionsX
51 \LoadClass[12pt, a4paper, openany]{book}
```

# 2 Check Engine

Check engine, only X\(\text{ATEX}\) and LualATEX are supported.

# **3 Font Setting**

Set font used in document. Firstly, it's font setting for English font under english mode. We use fontspec package to handle font. We choose Tex Gyre Termes, Droid Sans and CMU Typewriter Text as document main font, sans font and mono font.

Now let's set the Chinese font commands into empty, when document is under english mode.

```
79 \let\HEI\relax
80 \let\KAI\relax
81 \let\FANGSONG\relax
82 \newcommand{\hei}[1]{#1}
83 \newcommand{\kai}[1]{#1}
84 \newcommand{\fangsong}[1]{#1}
85 }{}
```

Below is the font setting under chinese mode. We chooses the same English font as under english mode. We use <code>xecjk</code> package (for X¬ILATEX) or <code>luatex-ja</code> package (for LualATEX, recommend) to handle Chinese font. We will use font: AdobeSongStd-Light, AdobeKaitiStd-Regular, AdobeHeitiStd-Regular and AdobeFangsongStd-Regular.

```
% \ifthenelse{\equal{\HUST@language}{chinese}}{
```

```
% 英文字体
                  \RequirePackage{fontspec}
          89
                  \RequirePackage{xunicode}
                  \setmainfont[
          91
                    Ligatures={Common, TeX},
                    Extension=.otf,
                    UprightFont=*-regular,
          94
                    BoldFont=*-bold,
          95
                    ItalicFont=*-italic,
          96
                    BoldItalicFont=*-bolditalic]{texgyretermes}
                  \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
                  \setmonofont{CMU Typewriter Text}
                  \defaultfontfeatures{Mapping=tex-text}
         100
                  % 中文字体
         101
                  \RequirePackage[CJKmath] {xeCJK}
         102
                  \setCJKmainfont[
         103
                   BoldFont={Adobe Heiti Std},
         104
                   ItalicFont={Adobe Kaiti Std}]{Adobe Song Std}
         105
                  \setCJKsansfont{Adobe Kaiti Std}
         106
                  \setCJKmonofont{Adobe Fangsong Std}
         107
                  \xeCJKsetup{PunctStyle=kaiming}
         108
         109
                  \newcommand\ziju[2]{{\renewcommand{\CJKglue}{\hskip #1} #2}}
         110
     \HEI
                  \newCJKfontfamily\HEI{Adobe Heiti Std}
         111
     \KAI
         112
                  \newCJKfontfamily\KAI{Adobe Kaiti Std}
\FANGSONG
                  \newCJKfontfamily\FANGSONG{Adobe Fangsong Std}
         113
     \hei
                  \newcommand{\hei}[1]{{\HEI #1}}
         114
     \kai
                  \fangsong
                  \newcommand{\fangsong}[1]{{\FANGSONG #1}}
```

\ifXeTeX % XeTeX 下使用 fontspec + xeCJK 处理字体

```
\else\fi
                \ifLuaTeX % LuaTeX 下使用 luatex-ja 处理字体 [推荐]
                  \RequirePackage{luatexja-fontspec}
         119
                  % 英文字体
                  \setmainfont[Ligatures={Common,TeX}]{Tex Gyre Termes}
         121
                  \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
         122
                  \setmonofont{CMU Typewriter Text}
         123
                  \defaultfontfeatures{Mapping=tex-text,Scale=MatchLowercase}
         124
                  % 中文字体
         125
                  \setmainjfont[
         126
                   BoldFont={AdobeHeitiStd-Regular},
                    ItalicFont={AdobeKaitiStd-Regular}] {AdobeSongStd-Light}
         128
                  \setsansjfont{AdobeKaitiStd-Regular}
         129
                  \defaultjfontfeatures{JFM=kaiming}
         130
         131
                  \newcommand\ziju[2]{\vbox{\ltjsetparameter{kanjiskip=#1} #2}}
         132
     \HEI
                  \newjfontfamily\HEI{AdobeHeitiStd-Regular}
         133
     \KAI
                  \newjfontfamily\KAI{AdobeKaitiStd-Regular}
\FANGSONG
                  \newjfontfamily\FANGSONG{AdobeFangsongStd-Regular}
         135
     \hei
                  \newcommand{\hei}[1]{{\jfontspec{AdobeHeitiStd-Regular} #1}}
         136
     \kai
                  \newcommand{\kai}[1]{{\jfontspec{AdobeKaitiStd-Regular} #1}}
         137
\fangsong
                  \newcommand{\fangsong}[1]{{\jfontspec{AdobeFangsongStd-Regular} #1}}
         138
                \else\fi
         139
              Generate Chinese number using zhnumber.
                \RequirePackage{zhnumber}
         140
                \def\CJKnumber#1{\zhnumber{#1}} % 兼容 CJKnumb
         141
         142 }{}
```

#### 4 Basic Format

Use interfaces package to handle font size and line spread. We set global line spread to 1.2.

```
143 \RequirePackage{interfaces-LaTeX}
\changefont{linespread=1.2}
     Use geometry package to handle paper page.
145 \RequirePackage{geometry}
  \geometry{
     a4paper,
147
     top=1.2in,
148
     bottom=1.2in,
149
     left=1in,
150
     right=1in,
     includefoot
153 }
  \pdfpagewidth=\paperwidth
155 \pdfpageheight=\paperheight
     Indent of paragraph and skip between paragraphs.
156 \RequirePackage{indentfirst}
157 \setlength{\parindent}{2em}
\setlength{\parskip}{Opt plus 2pt minus 1pt}
     Packages to handle color.
  \RequirePackage{color}
  \RequirePackage[table] {xcolor}
     Use hyperref package to generate cross-reference link.
  \RequirePackage[unicode] {hyperref}
  \hypersetup{
162
     bookmarksnumbered=true,
163
     bookmarksopen=true,
164
     bookmarksopenlevel=1,
165
     breaklinks=true,
166
     colorlinks=true,
167
     allcolors=black,
168
169
     linktoc=all,
     plainpages=false,
170
     pdfpagelabels=true,
171
     pdfstartview={XYZ null null 1},
172
```

```
pdfinfo={Template.Info={hustreport.cls v1.0 2013/07/01, Copyright (C) 2013 by Xu C
  treport}}
174 }
```

#### 5 **Load Packages**

```
Load packages for math.
```

```
175 \RequirePackage{amsmath,amssymb,amsfonts}
176 \RequirePackage[amsmath,amsthm,thmmarks,hyperref,thref]{ntheorem}
177 \RequirePackage{fancynum}
178 \setfnumgsym{\,}
179 \RequirePackage[lined,boxed,linesnumbered,ruled,vlined,algochapter]{algorithm2e}
     Load packages for picture.
180 \RequirePackage[all]{xy}
181 \RequirePackage{overpic}
\RequirePackage{graphicx,caption,subcaption}
     Load packages for table.
183 \RequirePackage{array}
184 \RequirePackage{multirow,tabularx,ltxtable}
     Load package for code highlight. Here we use listings to highlight the
 code. But if you need more features, use minted.
185 \RequirePackage{listings}
     Load package for bibliography cite style.
\RequirePackage[numbers,square,comma,sort&compress]{natbib}
     Other packages for style setting.
187 \RequirePackage{titlesec}
  \RequirePackage{titletoc}
189 \RequirePackage{tocvsec2}
  \RequirePackage[inline]{enumitem}
191 \RequirePackage{fancyhdr}
192 \RequirePackage{afterpage}
193 \RequirePackage{datenumber}
194 \RequirePackage{etoolbox}
195 \RequirePackage{appendix}
196 \RequirePackage[titles]{tocloft}
197 \RequirePackage{xstring}
198 \RequirePackage{perpage}
```

# 6 Variables Setting

```
\title A command to set the title.
             199 \def\title#1{\gdef\HUST@title{#1}\hypersetup{pdftitle={#1}}}
             200 \title{}
      \author A command to set the author.
             201 \def\author#1{\gdef\HUST@author{#1}\hypersetup{pdfauthor={#1}}}
             202 \author{}
       \major A command to set the major.
             203 \def\major#1{\gdef\HUST@major{#1}}
             204 \major{}
     \advisor A command to set the advisor.
             205 \def\advisor#1{\gdef\HUST@advisor{#1}}
             206 \advisor{}
  \department A command to set the department.
             207 \def\department#1{\gdef\HUST@department{#1}}
             208 \department{}
       \stuno A command to set student number.
             209 \def\stuno#1{\gdef\HUST@stuno{#1}}
             210 \stuno{}
\categoryname A command to set the categoryname.
             211 \def\categoryname#1{\gdef\HUST@categoryname{#1}}
             212 \categoryname{}
    \abstract A command to set the abstract.
             213 \long\def\abstract#1{\long\gdef\HUST@abstract{#1}}
             214 \abstract{}
    \keywords Commands to set the keywords.
             215 \def\keywords#1{\gdef\HUST@keywords{#1}\hypersetup{pdfkeywords={#1}}}
             216 \keywords{}
```

#### 7 Localization

Chinese localization. <sup>2</sup>

```
217 \ifthenelse{\equal{\HUST@language}{chinese}}{
      \def\indexname{索引}
218
      \def\figurename{图}
219
      \def\tablename{表}
220
      \def\listingscaption{代码}
221
      \def\bibname{参考文献}
222
      \def\contentsname{目\hspace{1em}录}
223
      \def\contentsnamenospace{目录}
224
      \def\appendixname{附录}
      \def\HUST@listfigurename{插图索引}
226
      \def\HUST@listtablename{表格索引}
227
      \def\equationautorefname{公式}
228
      \def\footnoteautorefname{脚注}
229
      \def\itemautorefname~#1\null{第~#1~项\null}
230
      \def\figureautorefname{图}
231
      \def\tableautorefname{表}
      \def\appendixautorefname{附录}
233
      \expandafter\def\csname\appendixname autorefname\endcsname{\ap-
  pendixname}
      \def\chapterautorefname~#1\null{第\zhnumber{#1}章\null}
235
      \def\sectionautorefname~#1\null{#1~小节\null}
236
      \def\subsectionautorefname~#1\null{#1~小节\null}
237
      \def\subsubsectionautorefname~#1\null{#1~小节\null}
238
      \def\FancyVerbLineautorefname~#1\null{第~#1~行\null}
239
      \def\pageautorefname~#1\null{第~#1~页\null}
240
      \def\lstlistingautorefname{代码}
241
      \def\definitionautorefname{定义}
242
      \def\propositionautorefname{命题}
      \def\lemmaautorefname{引理}
      \def\theoremautorefname{定理}
2/15
      \def\axiomautorefname{公理}
246
      \def\corollaryautorefname{推论}
247
      \def\exerciseautorefname{练习}
248
      \def\exampleautorefname{例}
249
      \def\proofautorefname{证明}
250
```

<sup>&</sup>lt;sup>2</sup>The autorefname Reference:http://tex.stackexchange.com/questions/52410/how-to-use-the-command-autoref-to-implement-the-same-effect-when-use-the-comman

```
\SetAlgorithmName{算法}{算法}{算法索引}
       \SetAlgoProcName{过程}{过程}
       \SetAlgoFuncName{函数}{函数}
253
       \def\AlgoLineautorefname~#1\null{第~#1~行\null}
255 }{}
     English localization.
   \ifthenelse{\equal{\HUST@language}{chinese}}{}{
       \def\HUST@listfigurename{List of Figures}
257
       \def\HUST@listtablename{List of Tables}
       \def\equationautorefname{Equation}
259
       \def\footnoteautorefname{Footnote}
260
       \def\itemautorefname{Item}
261
       \def\figureautorefname{Figure}
262
       \def\tableautorefname{Table}
       \def\appendixautorefname{Appendix}
264
       \expandafter\def\csname\appendixname autorefname\endcsname{\ap-
265
  pendixname}
       \def\chapterautorefname{Chapter}
266
       \def\sectionautorefname{Section}
       \def\subsectionautorefname{Subsection}
268
       \def\subsubsectionautorefname{Sub-subsection}
269
       \def\FancyVerbLineautorefname{Line}
270
       \def\pageautorefname{Page}
       \def\lstlistingautorefname{Code Fragment}
       \def\definitionautorefname{Definition}
273
       \def\propositionautorefname{Proposition}
274
       \def\lemmaautorefname{Lemma}
275
       \def\theoremautorefname{Theorem}
276
       \def\axiomautorefname{Axiom}
       \def\corollaryautorefname{Corollary}
278
       \def\exerciseautorefname{Exercise}
279
       \def\exampleautorefname{Example}
280
       \def\proofautorefname{Proof}
281
       \SetAlgorithmName{Algorithm}{Algorithm}{List of Algorithms}
       \SetAlgoProcName{Procedure}{Procedure}
283
       \SetAlgoFuncName{Function}{Function}
284
       \def\AlgoLineautorefname{Line}
285
286 }
     Internal variables.
287 \def\HUST@headcontent{华中科技大学研究生院}
```

```
\def\HUST@zhabstractname{摘\hspace{1em}要}
  \def\HUST@zhabstractnamenospace{摘要}
   \def\HUST@zhkeywordstitle{关键词:}
   \def\HUST@enabstractname{Abstract}
   \def\HUST@enkeywordstitle{Key words:}
  \ifthenelse{\equal{\HUST@language}{chinese}}{
295
     \def\HUST@ackname{致\hspace{1em}谢}
296
     \def\HUST@acknamenospace{致谢}
297
     \def\HUST@publicationtitle{攻读学位期间发表的学术论文}
299 }{
     \def\HUST@ackname{Acknowledge}
300
     \def\HUST@acknamenospace{Acknowledge}
301
     \def\HUST@publicationtitle{Publication}
302
303 }
304
  \ifthenelse{\equal{\HUST@category}{none}}{
305
     \categoryname{}
  }{}
  \ifthenelse{\equal{\HUST@category}{literature-survey}}{
     \ifthenelse{\equal{\HUST@language}{chinese}}
     {\categoryname{文献综述}}
310
     {\categoryname{Literature Survey}}
   \ifthenelse{\equal{\HUST@category}{thesis-proposal}}{
     \ifthenelse{\equal{\HUST@language}{chinese}}
314
     {\categoryname{选题}}
315
     {\categoryname{Thesis Proposal}}
316
317 }{}
   \ifthenelse{\equal{\HUST@category}{academic-report}}{
     \ifthenelse{\equal{\HUST@language}{chinese}}
319
     {\categoryname{学术报告}}
320
     {\categoryname{Academic Report}}
321
322 }{}
   \ifthenelse{\equal{\HUST@category}{midterm-progress}}{
     \ifthenelse{\equal{\HUST@language}{chinese}}
324
     {\categoryname{论文中期进展}}
325
     {\categoryname{Midterm Progress}}
326
327 }{}
328 \ifthenelse{\equal{\HUST@category}{practice}}{
```

# 8 Style Setting

#### 8.1 Equation Style

Allow long equation breaking between lines or pages.

```
341 \allowdisplaybreaks[4]
```

Set skip between equation and context.

```
\abovedisplayskip=10bp plus 2bp minus 2bp
\abovedisplayshortskip=10bp plus 2bp minus 2bp
\abovedisplayskip=\abovedisplayskip
\belowdisplayshortskip=\abovedisplayshortskip
Set equation numbering style.
\numberwithin{equation}{chapter}
```

### 8.2 Theorem Style

We use amsthm to handle the proof environment and use ntheorem to handle other theorem environments.

```
347 \theoremnumbering{arabic}
348 \ifthenelse{\equal{\HUST@language}{chinese}}{
349  \theoremseparator{: }
350 }{
351  \theoremseparator{:}
352 }
353 \theorempreskip{1.2ex plus 0ex minus 1ex}
```

```
\theorempostskip{1.2ex plus 0ex minus 1ex}
   \theoremheaderfont{\normalfont\bfseries\HEI}
   \theoremsymbol{}
357
   \theoremstyle{definition}
358
   \theorembodyfont{\normalfont}
   \ifthenelse{\equal{\HUST@language}{chinese}}{
     \newtheorem{definition}{定义}[chapter]
362 }{
     \newtheorem{definition}{Definition}[chapter]
363
   \theoremstyle{plain}
   \theorembodyfont{\itshape}
   \ifthenelse{\equal{\HUST@language}{chinese}}{
     \newtheorem{proposition}{命题}[chapter]
369
     \newtheorem{lemma}{引理}[chapter]
370
     \newtheorem{theorem}{定理}[chapter]
371
     \newtheorem{axiom}{公理}[chapter]
372
     \newtheorem{corollary}{推论}[chapter]
373
     \newtheorem{exercise}{练习}[chapter]
     \newtheorem{example}{例}[chapter]
     \def\proofname{\hei{证明}}
376
377 }{
     \newtheorem{proposition}{Proposition}[chapter]
378
     \newtheorem{lemma}{Lemma}[chapter]
     \newtheorem{theorem}{Theorem}[chapter]
380
     \newtheorem{axiom}{Axiom}[chapter]
381
     \newtheorem{corollary}{Corollary}[chapter]
382
     \newtheorem{exercise}{Exercise}[chapter]
383
     \newtheorem{example}{Example}[chapter]
     \def\proofname{\textbf{Proof}}
385
386 }
```

# 8.3 Floating Objects Style

Set the skip to the context for floating object with argument 'h'.

```
\setlength{\intextsep}{0.7\baselineskip plus 0.1\baselineskip minus 0.1\baselineskip}
```

Set the skip to the context for top or bottom floating object.

\setlength{\textfloatsep}{0.8\baselineskip plus 0.1\baselineskip minus 0.2\baselineskip}

Set the fraction of floating object. Make the fraction less crowded than default value to prevent floating object occupying too much space.

```
389 \renewcommand{\textfraction}{0.15}
390 \renewcommand{\textfraction}{0.85}
391 \renewcommand{\bottomfraction}{0.65}
392 \renewcommand{\floatpagefraction}{0.60}
```

# 8.4 Table Style

\tabincell A command make it easier to insert a new table into an existing cell.

To prevent \cline breaking page in longtable environment, use in this way: \(\lambda table content\) \\\* \nopagebreak \cline{i-j}^3

```
394 \def\@cline#1-#2\@nil{%
     \omit
     \@multicnt#1%
396
     \advance\@multispan\m@ne
397
     \ifnum\@multicnt=\@ne\@firstofone{&\omit}\fi
398
     \@multicnt#2%
     \advance\@multicnt-#1%
400
     \advance\@multispan\@ne
401
     \leaders\hrule\@height\arrayrulewidth\hfill
402
     \cr
403
     \noalign{\nobreak\vskip-\arrayrulewidth}}
```

Here we set the global font setting (font size: 11pt and line spread: 1.4) for tables. But first we will declare a variable to determine whether table global font setting is activated.

```
405 \newif\ifHUST@useoldtabular
406 \HUST@useoldtabularfalse
```

OffTabFontSetting Use \TurnOffTabFontSetting to deactivate global font setting.

407 \def\TurnOffTabFontSetting{\HUST@useoldtabulartrue}

nOnTabFontSetting Use \TurnOnTabFontSetting to activate global font setting.

408 \def\TurnOnTabFontSetting{\HUST@useoldtabularfalse}

<sup>&</sup>lt;sup>3</sup>Reference:http://tex.stackexchange.com/questions/52100/longtable-multirow-problem-with-cline-and-nopagebreak

Hook the tabular, tabularx and longtable environment to imply the global font setting.

```
\AtBeginEnvironment{tabular}{
     \ifHUST@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
     \fi
412
413 }
   \AtBeginEnvironment{tabularx}{
     \ifHUST@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
     \fi
417
418 }
  \AtBeginEnvironment{longtable}{
     \ifHUST@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
421
     \fi
423 }
```

#### 8.5 Caption Style

Set caption font size as 11pt, use hang format, remove ':' after number and set the skip between context as 12pt.

```
424 \DeclareCaptionFont{HUST@captionfont}{\changefont{size=11pt}}
   \DeclareCaptionLabelFormat{HUST@caplabel}{#1~#2}
  \captionsetup{
426
     font=HUST@captionfont,
427
     labelformat=HUST@caplabel,
     format=hang,
429
     labelsep=quad,
430
     skip=12pt
431
432 }
     Set figure and table numbering style.
433 \renewcommand{\thetable}{\arabic{chapter}.\arabic{table}}
  \renewcommand{\thefigure}{\arabic{chapter}-\arabic{figure}}
```

# 8.6 Code Highlight Style

```
435 \definecolor{HUST@lstgreen}{rgb}{0,0.6,0}
436 \definecolor{HUST@lstmauve}{rgb}{0.58,0,0.82}
437
438 \lstset{
```

```
basicstyle=\footnotesize\ttfamily\changefont{linespread=1}\FANGSONG,
     keywordstyle=\color{blue}\bfseries,
440
     commentstyle=\color{HUST@lstgreen}\itshape\KAI,
441
     stringstyle=\color{HUST@lstmauve},
442
     showspaces=false,
443
     showstringspaces=false,
444
     showtabs=false,
     numbers=left,
446
     numberstyle=\tiny\color{black},
447
     frame=lines,
448
     rulecolor=\color{black},
     breaklines=true
450
451 }
```

#### 8.7 Section Title Style

Set the numbering depth for section.

```
\setcounter{secnumdepth}{3}

Chapter tilte format and spacing setting.
```

```
\titleformat{\chapter}
454
       \bfseries
455
       \HEI
456
       \centering
457
       \changefont{size=18pt}
     }
459
     {
460
       \ifthenelse{\equal{\HUST@language}{chinese}}
461
       {\zhnumber{\thechapter}}
462
       {Chapter~\thechapter}
463
     }
464
     {1em}
465
     {}
  \titlespacing*{\chapter}{0pt}{0pt}{20pt}
     Section tilte format and spacing setting.
468 \titleformat*{\section}{\bfseries\HEI\changefont{size=16pt}}
469 \titlespacing*{\section}{0pt}{18pt}{6pt}
     Subsection tilte format and spacing setting.
470 \titleformat*{\subsection}{\bfseries\HEI\changefont{size=14pt}}
471 \titlespacing*{\subsection}{0pt}{12pt}{6pt}
```

```
Subsubsection tilte format and spacing setting.
```

- $\verb|\titleformat*{\subsubsection}{\bfseries\HEI\changefont{size=13pt}}|$
- 473 \titlespacing\*{\subsubsection}{0pt}{12pt}{6pt}

#### 8.8 TOC Style

TOC depth.

474 \setcounter{tocdepth}{1}

TOC right margin.

475 \contentsmargin{2.0em}

Remove vertical space between two continues chapter entries. <sup>4</sup>

- 476 \newskip\HUST@oldcftbeforechapskip
- 477 \HUST@oldcftbeforechapskip=\cftbeforechapskip
- 478 \newskip\HUST@oldcftbeforesecskip
- 479 \HUST@oldcftbeforesecskip=\cftbeforesecskip
- 480 \let\HUST@oldl@chapter\l@chapter
- 481 \let\HUST@oldl@section\l@section
- 482 \let\HUST@oldl@subsection\l@subsection
- \def\l@chapter#1#2{\HUST@oldl@chapter{#1}{#2}\cftbeforechapskip=3pt}
- 484 \def\l@section#1#2{\HUST@oldl@section{#1}{#2}\cftbeforechapskip=\HUST@old-cftbeforechapskip\cftbeforesecskip=3pt}
- \def\l@subsection#1#2{\HUST@oldl@subsection{#1}{#2}\cftbeforesecskip=\HUST@old-cftbeforesecskip}

Set LOF LOT style. <sup>5</sup>

- 486 \renewcommand\*\cftfigpresnum{\figurename^}
- 487 \newlength{\HUST@cftfignumwidth@tmp}
- 488 \settowidth{\HUST@cftfignumwidth@tmp}{\cftfigpresnum}
- 489 \addtolength{\cftfignumwidth}{\HUST@cftfignumwidth@tmp}
- 490 \renewcommand{\cftfigaftersnumb}{\quad~}
- 491 \renewcommand\*\cfttabpresnum{\tablename^}
- 492 \newlength{\HUST@cfttabnumwidth@tmp}
- 493 \settowidth{\HUST@cfttabnumwidth@tmp}{\cfttabpresnum}
- 494 \addtolength{\cfttabnumwidth}{\HUST@cfttabnumwidth@tmp}
- 495 \renewcommand{\cfttabaftersnumb}{\quad~}

remove-vertical-space-between-two-chapters-in-table-of-contents-in-latex

<sup>&</sup>lt;sup>4</sup>Reference:http://tex.stackexchange.com/questions/89103/

<sup>&</sup>lt;sup>5</sup>Reference:http://www.latex-community.org/viewtopic.php?f=5&t=1838

#### 8.9 Head & Foot Style

```
496 \let\ps@plain\ps@fancy
497 \pagestyle{fancy}
  \fancyhf{}
  \renewcommand{\headrulewidth}{Opt}
  \renewcommand{\footrulewidth}{Opt}
   \ifthenelse{\equal{\HUST@language}{english}}{
     \fancyfoot[C]{\thepage}
503 }{
     \ifHUST@finalformat
504
       \fancyfoot[C]{\thepage}
505
506
       \fancyhead[C]{
507
         \hei{\changefont{size=14pt}\HUST@headcontent}
         \vskip 0.3\normalbaselineskip
         \hrule width \textwidth height 0.4pt
510
511
       \fancyfoot[C]{
         \hrule width \textwidth height 0.4pt
         \vskip 0.3\normalbaselineskip
         \thepage
515
       }
516
     \fi
518 }
```

### 8.10 List Environment Style

```
519 \setlist{noitemsep,partopsep=0pt,topsep=.8ex}
520 \setlist[1]{labelindent=\parindent}
521 \setlist[enumerate,1]{label=\arabic*.,ref=\arabic*}
522 \setlist[enumerate,2]{label*=\arabic*,ref=\theenumi.\arabic*}
523 \setlist[enumerate,3]{label=\emph{\alph*}),ref=\theenumii\emph{\alph*}}
524 \setlist[description]{font=\bfseries\HEI}
```

# 8.11 Footnote Style

525 \MakePerPage{footnote}

# 9 Specical Page

```
\frontmatter \mainmatter 526 \def\frontmatter{ \backmatter
```

```
\clearpage
     \@mainmatterfalse
     \pagenumbering{Roman}
529
530 }
   \def\mainmatter{
531
     \clearpage
     \@mainmattertrue
     \pagenumbering{arabic}
534
535 }
   \def\backmatter{
536
     \clearpage
     \@mainmatterfalse
538
     \settocdepth{chapter}
539
     \hypersetup{bookmarksopenlevel=0}
540
541 }
     Chinese title page.
542 \def\HUST@zhtitlepage{
     \begin{center}
     \null\vskip 1cm
544
     \includegraphics[width=.5\textwidth]{hust-title.pdf} \\[0.8cm]
545
     \parbox[t][][t]{\textwidth}{
546
       \centering
547
       \changefont{size=22pt,linespread=1.5}
548
       \HEI
549
       \ifthenelse{\equal{\HUST@categoryname}{}}{
550
         \ziju{8pt}{研究生(~\hspace{6em}~)报告}
551
       }{
552
         \ziju{8pt}{研究生 ( \HUST@categoryname) 报告}
       }
554
     }
555
     \vskip 0.8cm
556
     \parbox[t][][t]{\textwidth}{
557
       \centering
558
       \changefont{size=18pt,linespread=1.5}
559
       \ifthenelse{\equal{\HUST@title}{}}{
560
         \hei{题目: ~\hspace{13em}}
561
       }{
562
         \hei{题目: ~\HUST@title}
       }
564
565
     \vfill
566
```

```
\parbox[t][][t]{\textwidth}{
567
                    \centering
                    \TurnOffTabFontSetting
569
                    \changefont{size=16pt,linespread=1.5}
570
                    \begin{tabular}{p{6em}@{\hspace{1em}}1}
571
                          {{学}\hfill{号}} & \makebox[10em][1]{\rule[-2.0pt]{10em}{1pt}\hspace{-10em}\hfi
572
                          {{姓}\hfill{名}} & \makebox[10em][1]{\rule[-2.0pt]{10em}{1pt}\hspace{-10em}\hfi
                         {\{\buildrel \{\buildrel \{\buildr
574
                          {{指}\hfill{导}\hfill{教}\hfill{师}} & \makebox[10em][1]{\rule[-2.0pt]{10em}{1p
575
                          {\tilde{K}(\tilde{S},\tilde{H})} & \makebox[10em][1]{\text{-2.0pt}}{10em}{1pt}\hspace{-10em}\hfill\HU}
576
                    \end{tabular}
                    \TurnOnTabFontSetting
              }
579
              \vskip 2cm
580
              \parbox[t][][t]{\textwidth}{
581
                    \centering
582
                    \changefont{size=16pt,linespread=1.5}
583
                    {华中科技大学研究生院制}
584
585
              \end{center}
586
587 }
               English title page.
        \def\HUST@entitlepage{
              \begin{center}
589
              \null\vskip 1cm
590
              \parbox[t][][t]{\textwidth}{
591
                    \centering
592
                    \changefont{size=20pt,linespread=1.5}
593
                    \scshape
594
                   Huazhong University of Science and Technology
595
              }
596
              \vskip 0.8cm
597
              \parbox[t][][t]{\textwidth}{
598
                    \centering
599
                    \changefont{size=20pt,linespread=1.5}
600
                    \scshape
601
                    \ifthenelse{\equal{\HUST@categoryname}{}}{
602
                          Postgraduate~\hspace{6em}~Report
603
                   }{
604
                         Postgraduate~\HUST@categoryname~Report
605
                    }
606
```

```
}
607
                      \vskip 0.8cm
                      \parbox[t][][t]{\textwidth}{
609
                               \centering
610
                               \changefont{size=18pt,linespread=1.5}
611
                               \bfseries
612
                               \left( \operatorname{USTOtitle} \right) 
613
                                         Title:~\hspace{13em}
614
                              }{
615
                                         Title:~\HUST@title
616
                               }
                      }
618
                      \vfill
619
                      \parbox[t][][t]{\textwidth}{
620
                               \centering
621
                               \TurnOffTabFontSetting
622
                               \changefont{size=16pt,linespread=1.5}
623
                               \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array}
624
                                          {\tt Student ID} \& \verb|\makebox[16em][1]{\rule[-2.0pt]{16em}{1pt}\hspace{-16em}\hfill} \\
625
                                         \label{local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_loc
626
                                         \label{local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_makebox_local_m
627
                                          {\tt Advisor} & \verb|\makebox[16em][1]{\rule[-2.0pt]{16em}{1pt}\hspace{-16em}\hfill\huS} 
                                         629
                               \end{tabular}
630
                               \TurnOnTabFontSetting
631
                      }
632
                      \vskip 2cm
633
                      \parbox[t][][t]{\textwidth}{
634
                               \centering
635
                               \changefont{size=16pt,linespread=1.5}
636
                               Graduate School\\
                               Huazhong University of Science~\char38~Technology
638
                      }
639
                      \end{center}
640
641 }
                       Chinese note page.
642 \def\HUST@zhnotepage{
                      \null\vskip 1cm
                      \begin{center}
644
                               \ziju{1em}{\hei{\changefont{size=18pt,linespread=1.5}填表注意事项
645
            }}
```

```
\end{center}
646
    \vskip 1.2ex
    \begingroup
648
    \changefont{size=14pt,linespread=1.5}
649
    \ifthenelse{\equal{\HUST@category}{practice}}{
650
      \begin{enumerate}
651
        \renewcommand{\labelenumi}{\zhnumber{\theenumi}, }
        \item 本表适用于攻读专业硕士学位研究生实践环节报告, 文献阅读与选题
653
  报告等。
        \item 以上各报告内容及要求由相关院(系、所)做具体要求。
654
        \item 以上各报告均须存入研究生个人学籍档案。
        \item 本表填写要求文句通顺、内容明确、字迹工整。
      \end{enumerate}
657
    }{
658
      \begin{enumerate}
659
        \renewcommand{\labelenumi}{\zhnumber{\theenumi}, }
660
        \item 本表适用于攻读硕士学位研究生选题报告、学术报告,攻读博士学位
661
  研究生文献综述、选题报告、论文中期进展报告、学术报告等。
        \item 以上各报告内容及要求由相关院(系、所)做具体要求。
662
        \item 以上各报告均须存入研究生个人学籍档案。
663
        \item 本表填写要求文句通顺、内容明确、字迹工整。
      \end{enumerate}
    }
666
    \endgroup
667
668 }
    English note page.
  \def\HUST@ennotepage{
    \null\vskip 1cm
670
    \begin{center}
671
      \textbf{\changefont{size=18pt,linespread=1.5}Note}
672
    \end{center}
673
    \vskip 1.2ex
674
    \begingroup
675
    \changefont{size=14pt,linespread=1.5}
    \ifthenelse{\equal{\HUST@category}{practice}}{
677
      \begin{enumerate}
678
        \item This form is applicable for master student's practice re-
679
  port, literature survey and thesis proposal.
        \item The contents and the requirements of the above reports are spec-
680
  ified in details by each department, respectively.
```

```
\item All these reports will be filed into the graduate's aca-
             demic archive.
                   \item This form should be filled with correct grammar, clear text and neat han
             writing.
                 \end{enumerate}
          683
               }{
                 \begin{enumerate}
                   \item This form is applicable for master student's thesis pro-
             posal, academic report, and also applicable for Ph.D. student's lit-
             erature survey, thesis proposal, midterm progress report and academic re-
             port.
                   \item The contents and the requirements of the above reports are spec-
             ified in details by each department, respectively.
                   \item All these reports will be filed into the graduate's aca-
             demic archive.
                   \item This form should be filled with correct grammar, clear text and neat han
             writing.
                 \end{enumerate}
          690
               }
               \endgroup
          692
          693 }
\maketitle Commands to generate title page.
\makecover 694 \def\maketitle{
               \let\HUST@oldthepage\thepage
               \ifthenelse{\equal{\HUST@language}{chinese}}
          696
               {\def\thepage{封面}}
               {\def\thepage{Titlepage}}
               \begin{titlepage}
          699
                 \thispagestyle{empty}
          700
                 \ifthenelse{\equal{\HUST@language}{chinese}}
          701
                 {\HUST@zhtitlepage}
                 {\HUST@entitlepage}
          703
               \end{titlepage}
          704
               \ifthenelse{\equal{\HUST@language}{chinese}}
          705
          706
                 \def\thepage{注意事项}
                 \thispagestyle{empty}
                 \HUST@zhnotepage
          709
               }{
          710
                 \def\thepage{Note}
          711
```

```
\thispagestyle{empty}
                     \HUST@ennotepage
              713
                   }
              714
                   \clearpage
                   \let\thepage\HUST@oldthepage
              716
                   \setcounter{page}{1}
              718 }
              719 \let\makecover\maketitle
                   Chinese abstract page.
                 \def\HUST@zhabstractpage{
                   \chapter*{\HUST@zhabstractname}
                   \HUST@zhabstract \par
                   \vskip 1.2ex
              723
                   \noindent\hei{\HUST@zhkeywordstitle}\hspace{.8em} \HUST@zhkeywords
              724
              725 }
                   English abstract page.
              726 \def\HUST@enabstractpage{
                   \chapter*{\textsf{\HUST@enabstractname}}
              727
                   \HUST@enabstract \par
              728
                   \vskip 1.2ex
              729
                   \noindent\textbf{\HUST@enkeywordstitle}\hspace{.8em} \HUST@enkey-
                 words
              731 }
               A command to generate abstract page.
\makeabstract
                 \def\makeabstract{
                   \phantomsection
                   \ifthenelse{\equal{\HUST@language}{chinese}}{
                     \let\HUST@zhabstract\HUST@abstract
              735
                     \let\HUST@zhkeywords\HUST@keywords
              736
                     \addcontentsline{toc}{chapter}{\HUST@zhabstractnamenospace}
              737
                     \HUST@zhabstractpage
              738
                     \clearpage
              739
                   }{
              740
                     \let\HUST@enabstract\HUST@abstract
              741
                     \let\HUST@enkeywords\HUST@keywords
              742
                     \addcontentsline{toc}{chapter}{\HUST@enabstractname}
              743
                     \HUST@enabstractpage
                     \clearpage
              745
                   }
              746
              747 }
```

```
A command to generate table of contents.
\tableofcontents
                    \let\HUST@tableofcontents\tableofcontents
                    \def\tableofcontents{
                      \ifthenelse{\equal{\HUST@language}{chinese}}{
                 750
                        \pdfbookmark{\contentsnamenospace}{\contentsnamenospace}
                 751
                      }{
                        \pdfbookmark{\contentsname}{\contentsname}
                 753
                      }
                 754
                      \HUST@tableofcontents
                 755
                 756
                      \clearpage
                 757 }
             ack A command to generate acknowledge page.
                    \newenvironment{ack}{
                      \clearpage
                      \phantomsection
                      \addcontentsline{toc}{chapter}{\HUST@acknamenospace}
                 761
                      \chapter*{\HUST@ackname}
                 762
                      \begingroup
                 763
                      \normalsize
                 765 }{
                      \endgroup
                 766
                 767 }
                     command to generate publications page.
                    \newenvironment{publications}{
                      \clearpage
                 769
                      \ifHUST@inappendix
                 770
                        \chapter{\HUST@publicationtitle}
                 771
                      \else
                        \phantomsection
                 773
                        \addcontentsline{toc}{chapter}{\HUST@publicationtitle}
                 774
                        \chapter*{\HUST@publicationtitle}
                 775
                      \begin{enumerate}[labelindent=0pt,label={[\arabic*]}]
                 778 }{
```

\bibliography A command to generate bibliography page. We use thubib.bst in thuthesis to typeset bibliography in Chinese language mode. And use IEEEtran in English language mode.

\end{enumerate}

780 }

```
\ifthenelse{\equal{\HUST@language}{chinese}}{
              \def\thudot{\unskip.}
              \def\thumasterbib{[Master Thesis]}
         783
              \def\thuphdbib{[Doctor Thesis]}
         784
              \bibliographystyle{thubib}
         785
         786 }{
              \bibliographystyle{IEEEtran}
        787
        788 }
            \let\HUST@bibliography\bibliography
            \def\bibliography#1{
              \clearpage
              \phantomsection
         792
              \addcontentsline{toc}{chapter}{\bibname}
         793
              \ifthenelse{\equal{\HUST@language}{chinese}}{
         794
                \HUST@bibliography{#1}
         795
              }{
         796
                \HUST@bibliography{IEEEabrv,#1}
         797
              }
         798
        799 }
          The appendix environment.
appendix
         800 \newif\ifHUST@inappendix
           \HUST@inappendixfalse
           \newif\ifHUST@appendix@resetmainmatter
            \HUST@appendix@resetmainmatterfalse
            \renewenvironment{appendix}{
              \if@mainmatter
                \HUST@appendix@resetmainmatterfalse
        806
              \else
        807
                \HUST@appendix@resetmainmattertrue
        808
                \@mainmattertrue
        809
              \fi
        810
              \appendixtitletocon
        811
              \appendices
        812
              \titleformat{\chapter}
        813
        814
                \bfseries\HEI
        815
                \centering
        816
                \changefont{size=18pt}
        817
              }
        818
              {\appendixname\,\thechapter}
```

```
{1em}
               820
                    {}
               821
                    \HUST@inappendixtrue
               822
               823 }{
                    \endappendices
               824
                    \HUST@inappendixfalse
               825
                    \ifHUST@appendix@resetmainmatter
                      \HUST@appendix@resetmainmatterfalse
               827
                      \@mainmatterfalse
               828
                    \else\fi
               829
               830 }
                 A command to generate list of figures.
\listoffigures
                  \let\HUST@listoffigures\listoffigures
                  \def\listoffigures{
                    \clearpage
               833
                    \ifHUST@inappendix
                      \addtocounter{chapter}{1}
               835
                      \def\listfigurename{\appendixname\,\thechapter\hspace{1em}\HUST@listfigurename}
               836
                    \else
               837
                      \def\listfigurename{\HUST@listfigurename}
               838
               839
                    \fi
                    \phantomsection
               840
                    \ifHUST@inappendix
               841
                      \addcontentsline{toc}{chapter}{\thechapter\hspace{1em}\HUST@list-
               842
                  figurename}
                    \else
               843
                      \addcontentsline{toc}{chapter}{\listfigurename}
               844
                    \fi
               845
                    \HUST@listoffigures
               846
                    \def\listfigurename{\HUST@listfigurename}
               848 }
                 A command to generate list of tables.
 \listoftables
               849 \let\HUST@listoftables\listoftables
                  \def\listoftables{
                    \clearpage
               851
                    \ifHUST@inappendix
                      \addtocounter{chapter}{1}
               853
                      \def\listtablename{\appendixname\,\thechapter\hspace{1em}\HUST@listtablename}
               854
                    \else
               855
```

```
\def\listtablename{\HUST@listtablename}
    \fi
    \phantomsection
858
    \ifHUST@inappendix
859
      \addcontentsline{toc}{chapter}{\thechapter\hspace{1em}\HUST@list-
860
  tablename}
    \else
      \addcontentsline{toc}{chapter}{\listtablename}
862
    \fi
863
    \HUST@listoftables
864
    \def\listtablename{\HUST@listtablename}
866 }
     Back cover.
  \def\HUST@backcoverpage{
    \ifthenelse{\equal{\HUST@category}{practice}}{
      \ifthenelse{\equal{\HUST@language}{chinese}}{
869
        \begin{center}
870
          \ziju{1em}{\hei{\changefont{size=18pt,linespread=1.5}导师评
  语}}
        \end{center}
872
        \vskip 1.5cm
873
        实践是专业硕士学位的重要环节,是一门必修课,8个学分,对于专业学位实
  践报告,要求字数 5000 以上,内容包括但不限于:参加实践的具体内容、完成的工
  作、收获和体会等,格式自定,但封面和封底需用"研究生实践环节报告"。
        \vfill
875
        \begin{flushleft}
876
        \changefont{size=16pt,linespread=1.5}\HEI 导师评分:
877
        \end{flushleft}
        \vskip 2cm
      }{
880
        \begin{center}
881
          \textbf{\changefont{size=18pt,linespread=1.5}Advisor Reviews}
882
        \end{center}
        \vskip 6ex
        Practice is an important part of a master's degree. It's a re-
885
  quired course with eight credits. The practice report requires more than 5000 words.
  tent can be including but not limited to: the specific content dur-
  ing the participation in practice, the work which has been done, the har-
  vesting or the experience. The format is not set, but the font and back cover are re
  quired from ``graduate practice report''.
        \vfill
886
```

```
\begin{flushleft}
887
         \textbf{\changefont{size=16pt,linespread=1.5}Score:}
888
         \end{flushleft}
889
         \vskip 2cm
290
       }
891
     }{\null\vfill}
892
     \begin{flushleft}
893
       \TurnOffTabFontSetting
894
       \changefont{size=16pt,linespread=1.5}
895
       \bfseries
896
       \begin{tabular}{p{8em}@{\hspace{1em}}1}
       \ifthenelse{\equal{\HUST@language}{chinese}}{研究生签字}{Student Sig-
  nature}
       & \makebox[10em][1]{\rule[-2.0pt]{10em}{1pt}} \\[2ex]
899
       \ifthenelse{\equal{\HUST@language}{chinese}}{指导教师签字}{Advi-
900
  sor Signature}
       & \makebox[10em][1]{\rule[-2.0pt]{10em}{1pt}} \\[2ex]
901
       \ifthenelse{\equal{\HUST@language}{chinese}}{院(系、所)领导签字
902
  }{Dean Signature}
       & \makebox[10em][1]{\rule[-2.0pt]{10em}{1pt}}
903
       \end{tabular}
       \TurnOnTabFontSetting
905
     \end{flushleft}
906
     \vskip 2cm
907
     \begin{flushright}
908
       \changefont{size=16pt,linespread=1.5}
       \bfseries
910
       \ifthenelse{\equal{\HUST@language}{chinese}}{\hspace{2em}年\hspace{2em}
911
   月\hspace{2em}目}{Date:\hspace{8em}}
     \end{flushright}
     \vskip 6ex
914 }
  \AtEndDocument{
915
     \clearpage
916
     \let\HUST@oldthepage\thepage
917
     \ifthenelse{\equal{\HUST@language}{chinese}}
918
     {\def\thepage{封底}}
919
     {\def\thepage{Back cover}}
920
     \thispagestyle{empty}
921
     \HUST@backcoverpage
     \let\thepage\HUST@oldthepage
923
```

924 }

## 10 Other Command

## \email 925 \def\email#1{ 926 \href{mailto:#1}{\texttt{#1}}} 927 } 928 \langle /class\rangle

## V Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

|  | 1 🗆 |
|--|-----|
| \@cline 394 \AtEndDocument 9   | 15  |
| \@firstofone   | 02  |
| \@height 402 \axiomautorefname 246, 2  | 77  |
| \@mainmatterfalse 528,538,828  |     |
| \@mainmattertrue 533,809   | 26  |
| \text{\text{Cmulticnt}} \text{\text{\text{S26}}}, 398, 399, 400} \text{\text{\text{\text{backmatter}}} \text{\text{\text{\text{\text{backmatter}}}}} \text{\tex{\tex   |     |
| \@multispan 397, 401 \begin 393,   | 00  |
| 5/2 571 590 62/ 6// 651  |     |
| 4E0 471 479 49E 400 777  |     |
| 070 077 001 007 002 007 0  | 08  |
| \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\   |     |
| (abstract / , 17, <u>213</u> , 213, 214  |     |
| \hfanisa \\ 255 440 455 469  |     |
| \\ducontentsiine \ldots 757,745,\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\   | 10  |
| \hibliography  \lambda \hibliography  \lambda \lambd           |     |
| \hibliographygtylo 785 7   |     |
| \hibnama \\hibnama \\\hibnama \\hibnama \hibnama \\hibnama \\hibnama \\hibnama \\hibnama \\hibnama \\hibna |     |
| \advisor 7, 14, 205, 205, 206 \bottomfraction 354  | 91  |
| \AlgoLineautorefname 254, 285  |     |
| \allowdisplaybreaks 341 C \alph 523 \captionsetup 4  |     |
| (captionscrap  | 26  |
| language   |     |
| 211, 212, 200, 210, 211, 210,  | 01  |
| \appendix 8, 15 316, 320, 321, 325, 326, 330, 33 appendix (environment) 8, 15, 800 \centering 457, 547, 558, 568,  | 31  |
|  | 16  |
|  |     |
| \appendixname \cftbeforechapskip 477, 483, 485 225, 234, 265, 819, 836, 854 \cftbeforesecskip 479, 484, 485  |     |
| 225, 234, 265, 819, 836, 854 \cftbeforesecskip 479, 484, 48 \appendixtitletocon 811 \cftfigaftersnumb 49   |     |
| \arabic 433, 434, 521, 522, 777 \cftfignumwidth 4  |     |
| \arrayrulewidth 402, 404 \cftfigpresnum 486, 486   |     |
| \AtBeginEnvironment . 409, 414, 419 \cfttabaftersnumb 4  |     |

| \cfttabnumwidth 494  | \end 393,577,586,630,640,646,657,   |
|--|---|
| \cfttabpresnum 491, 493  | 665, 673, 683, 690, 704, 779,   |
| \changefont  | 872, 878, 883, 889, 904, 906, 912   |
| 144, 411, 416, 421, 424, 439,                                      | \endappendices 824  |
| 458, 468, 470, 472, 508, 548,                                      | \endcsname  |
| 559, 570, 583, 593, 600, 611,                                      | ack   |
| 623, 636, 645, 649, 672, 676,                                      | appendix 8, 15, 800   |
| 817, 871, 877, 882, 888, 895, 909                                  |   |
| \chapter 453,  | publications  |
| 467, 721, 727, 762, 771, 775, 813                                  | \equal 7, 10,   |
| \chapterautorefname 235, 266                                       | 21, 31, 41, 67, 86, 217, 256, 295,  |
| \char  | 305, 308, 309, 313, 314, 318,   |
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