A Translation Template for Huazhong University of Science and Technology: the husttrans class *

Xu Cheng xucheng@me.com

February 21, 2017

Contents

I	Ir	ntroduction	3
II	1	使用说明	4
	1	使用必要条件	4
	2	安装	4
		2.1 安装到本地	4
		2.2 免安装使用	5
	3	基本用法	5
		3.1 基本字段设置	5
		3.2 其它基本命令	6
	4	简单示例	7
	5	预设宏包介绍	8
	6	高级设置	8
		6.1 切换字体	8
		6.2 内部字段设置	9
III	[Implementation	10

^{*}This document corresponds to husttrans.cls v1.3, dated 2017/02/21.

	1	Process Options	10
	2	Check Engine	10
	3	Font Setting	10
	4	Basic Format	13
	5	Load Packages	14
	6	Variables Setting	15
	7	Localization	16
	8	Style Setting	17
		8.1 Equation Style	17
		8.2 Theorem Style	18
		8.3 Floating Objects Style	18
		8.4 Table Style	19
		8.5 Caption Style	20
		8.6 Code Highlight Style	20
		8.7 Section Title Style	21
		8.8 TOC Style	22
		8.9 Head & Foot Style	23
		8.10 List Environment Style	23
		8.11 Footnote Style	23
	9	Specical Page	23
	10	Other Command	27
ΙV	7	Index	28

I Introduction

This is a translation 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.

II 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LuaTEX,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。

 $^{^1}$ 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。

2.2 免安装使用

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 husttrans 目录下的如下文件拷贝到你 TeX 工程根目录下即可:

• husttrans.cls

3 基本用法



本文档只能使用 XqLATFX 或 LuaLATFX (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{husttrans}

3.1 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{ $\langle translation\ title \rangle$ }

该命令用于设定外文翻译的标题。

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

该命令用于设定原文作者。

\translator \translator{\(\lambda Translator\\)}

该命令用于设定翻译作者。

 $\del{ate} \del{ate} \del{ate} \del{ate} \del{ate} \del{ate} \del{ate} \del{ate} \del{ate}$

该命令用于设定日期。如果不设定,则会选择当前编译日期。

\supervisor \supervisor{\langle supervisor \rangle}

该命令用于设定指导老师名(含职称)。

其它基本命令 3.2

下面来介绍其它基本命令。

\frontmatter \mainmatter

\backmatter

这一组命令用于设定译文的状态、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,目录等)的开始。 \mainmatter 表示译文正文的开始。\backmatter 表示译文正文的结束。

\maketitle

\maketitle 和\makecover 作用相同,用于生成封面。

\makecover

\tableofcontents 用于生成目录。

\dateformat 用于打印日期。

\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>

\listoftables

\listoffigures 这两个命令分别用于生成图片和表格索引,可以根据要求在前言中或附录中 使用。

\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:

 $\verb|\email| $$ \operatorname{Email} Address|$

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husttrans-example.tex 文件,其效果见husttrans-example.pdf。

```
1 \documentlcass{husttrans}
2 \title{原文标题}
3 \author{原文作者}
4 \translator{翻译作者}
5 \supervisor{指导老师}
6 \date{2014}{3}{1}
7
8 \begin{document}
9
10 \frontmatter
11 \maketitle
12 \tableofcontents
13 \listoffigures
14 \listoftables
15 \mainmatter
16
17 %% 正文
18
19 \backmatter
```

```
20 \bibliography{参考文献.bib文件}
21 \appendix
22 % 附录剩余部分
23 \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。
- 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:

```
      \HEI {\HEI \( \) content \\} \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
        \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
        \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
        \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \\
      \( \) \
```

 $\lceil \langle content \rangle \rceil$

\fangsong

切换字体为仿宋(AdobeFangsongStd-Regular)。 如果需要加载其他字体,请参阅宏包 fontspec,宏包 xeCJK (对于 X元区T_EX) 和宏包 luatex-ja (对于 LualET_EX) 的文档。

6.2 内部字段设置

本模板定义了内部字段,其具体内容见 section 7。通过更改这些字段,可以对格式进行自定义。

III Implementation

```
1 %<*class>
2 \RequirePackage{ifthen}
```

1 Process Options

Use xkeyval to process options.

3 \RequirePackage{xkeyval}

Process options and load class book.

```
4 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}
```

- 5 \ProcessOptionsX
- 6 \LoadClass[12pt, a4paper, openany]{book}

2 Check Engine

Check engine, only X_HAT_EX and LualAT_EX are supported.

```
7 \RequirePackage{iftex}
 \ifXeTeX\else
  \ifLuaTeX\else
    \begingroup
10
     \errorcontextlines=-1\relax
11
     \newlinechar=10\relax
     \errmessage{^^J
     * XeTeX or LuaTeX is required to compile this document.^^J
15
     * Sorry!^^J
16
     }%
    \endgroup
  \fi
20
21 \fi
```

3 Font Setting

Set font used in document. Firstly, it's English font. 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.

Then it's the Chinese font setting. We use xecjk package (for XqLETeX) or luatex-ja package (for LuaLETeX, recommend) to handle Chinese font. We will use font: AdobeSongStd-Light, AdobeKaitiStd-Regular, AdobeHeitiStd-Regular and AdobeFangsongStd-Regular.

```
22 \ifXeTeX % XeTeX 下使用 fontspec + xeCJK 处理字体
              % 英文字体
          23
              \RequirePackage{fontspec}
          24
              \RequirePackage{xunicode}
          25
              \setmainfont[
          26
                Ligatures={Common,TeX},
          27
                 Extension=.otf,
          28
                UprightFont=*-regular,
          29
                BoldFont=*-bold,
          30
                 ItalicFont=*-italic,
                BoldItalicFont=*-bolditalic]{texgyretermes}
          32
              \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
          33
              \setmonofont{CMU Typewriter Text}
          34
              \defaultfontfeatures{Mapping=tex-text}
          35
              % 中文字体
          36
              \RequirePackage[CJKmath] {xeCJK}
          37
              \setCJKmainfont[
          38
               BoldFont={Adobe Heiti Std},
          39
                ItalicFont={Adobe Kaiti Std}]{Adobe Song Std}
          40
              \setCJKsansfont{Adobe Kaiti Std}
          41
              \setCJKmonofont{Adobe Fangsong Std}
          42
              \xeCJKsetup{PunctStyle=kaiming}
          43
          44
              \newcommand\ziju[2]{{\renewcommand{\CJKglue}{\hskip #1} #2}}
          45
     \HEI
              \newCJKfontfamily\HEI{Adobe Heiti Std}
           (End definition for \HEI. This function is documented on page 8.)
     \KAI
              \newCJKfontfamily\KAI{Adobe Kaiti Std}
          47
           (End definition for \KAI. This function is documented on page 8.)
\FANGSONG
```

\newCJKfontfamily\FANGSONG{Adobe Fangsong Std}

```
(End definition for \FANGSONG. This function is documented on page 8.)
     \hei
               \mbox{\newcommand{\hei}[1]{{\HEI #1}}}
           (End definition for \hei. This function is documented on page 8.)
     \kai
               \mbox{\newcommand}{\kai}[1]{{\KAI #1}}
           (End definition for \kai. This function is documented on page 8.)
\fangsong
               \newcommand{\fangsong}[1]{{\FANGSONG #1}}
           (End definition for \fangsong. This function is documented on page 8.)
          52 \else\fi
          53 \ifLuaTeX % LuaTeX 下使用 luatex-ja 处理字体 [推荐]
               \RequirePackage{luatexja-fontspec}
               % 英文字体
          55
               \setmainfont[Ligatures={Common,TeX}]{Tex Gyre Termes}
               \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
          57
               \setmonofont{CMU Typewriter Text}
          58
               \defaultfontfeatures{Mapping=tex-text,Scale=MatchLowercase}
          59
               % 中文字体
          60
               \setmainjfont[
                BoldFont={AdobeHeitiStd-Regular},
          62
                ItalicFont={AdobeKaitiStd-Regular}]{AdobeSongStd-Light}
          63
               \setsansjfont{AdobeKaitiStd-Regular}
          64
               \defaultjfontfeatures{JFM=kaiming}
          65
          66
               \newcommand\ziju[2]{\vbox{\ltjsetparameter{kanjiskip=#1} #2}}
          67
     \HEI
               \newjfontfamily\HEI{AdobeHeitiStd-Regular}
           (End definition for \HEI. This function is documented on page 8.)
     \KAI
               \newjfontfamily\KAI{AdobeKaitiStd-Regular}
           (End definition for \KAI. This function is documented on page 8.)
\FANGSONG
```

\newjfontfamily\FANGSONG{AdobeFangsongStd-Regular}

```
(End definition for \FANGSONG. This function is documented on page 8.)
     \hei
               \newcommand{\hei}[1]{{\jfontspec{AdobeHeitiStd-Regular} #1}}
           (End definition for \hei. This function is documented on page 8.)
     \kai
               \newcommand{\kai}[1]{{\jfontspec{AdobeKaitiStd-Regular} #1}}
           (End definition for \kai. This function is documented on page 8.)
\fangsong
               \newcommand{\fangsong}[1]{{\jfontspec{AdobeFangsongStd-Regular} #1}}
           (End definition for \fangsong. This function is documented on page 8.)
          74 \else\fi
               Generate Chinese number using zhnumber.
          75 \RequirePackage{zhnumber}
          76 \def\CJKnumber#1{\zhnumber{#1}} % 兼容 CJKnumb
                Basic Format
           4
               We set global line spread to 1.3.
          77 \linespread{1.3}\selectfont
               Use geometry package to handle paper page.
            \RequirePackage{geometry}
             \geometry{
               top=1.2in,
          80
               bottom=1.2in,
          81
               left=1in,
               right=1in,
          83
               includefoot
          85 }
             \ifthenelse{\isundefined{\pagewidth}}{
               \pdfpagewidth=\paperwidth
               \pdfpageheight=\paperheight
          89 }{
               \pagewidth=\paperwidth
               \pageheight=\paperheight
          92 }
```

```
Indent of paragraph and skip between paragraphs.
```

93 \RequirePackage{indentfirst}

```
94 \setlength{\parindent}{2em}
95 \setlength{\parskip}{Opt plus 2pt minus 1pt}
     Packages to handle color.
96 \RequirePackage{color}
97 \RequirePackage[table]{xcolor}
     Use hyperref package to generate cross-reference link.
98 \RequirePackage[unicode]{hyperref}
  \hypersetup{
     bookmarksnumbered=true,
100
     bookmarksopen=true,
     bookmarksopenlevel=1,
     breaklinks=true,
     colorlinks=true,
104
     allcolors=black,
105
     linktoc=all,
     plainpages=false,
107
     pdfpagelabels=true,
108
     pdfstartview={XYZ null null 1},
109
     pdfinfo={Template.Info={husttrans.cls v1.0 2014/03/01, Copyright (C) 2013-2014 by
111 }
```

5 Load Packages

Load packages for math.

```
112 \RequirePackage{amsmath,amssymb,amsfonts}
113 \RequirePackage[amsmath,amsthm,thmmarks,hyperref,thref]{ntheorem}
114 \RequirePackage{fancynum}
115 \setfnumgsym{\,}
116 \RequirePackage[lined,boxed,linesnumbered,ruled,vlined,algochapter]{algorithm2e}
117 \RequirePackages for picture.
118 \RequirePackage{overpic}
118 \RequirePackages for table.
119 \RequirePackage{array}
120 \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.

```
121 \RequirePackage{listings}
                 Load package for bibliography cite style.
            122 \RequirePackage[numbers,square,comma,super,sort&compress]{natbib}
                 Other packages for style setting.
           123 \RequirePackage{titlesec}
           124 \RequirePackage{titletoc}
           125 \RequirePackage{tocvsec2}
           126 \RequirePackage[inline]{enumitem}
           127 \RequirePackage{fancyhdr}
           128 \RequirePackage{afterpage}
           129 \RequirePackage{datenumber}
           130 \RequirePackage{etoolbox}
           131 \RequirePackage{appendix}
           132 \RequirePackage[titles]{tocloft}
           133 \RequirePackage{xstring}
            134 \RequirePackage{perpage}
                  Variables Setting
     \title Commands to set the title.
            135 \def\title#1{\gdef\HUST@zhtitle{#1}\hypersetup{pdftitle={#1}}}
           136 \title{}
             (End definition for \title. This function is documented on page 5.)
    \author Commands to set the author.
            137 \def\author#1{\gdef\HUST@zhauthor{#1}}
           138 \author{}
             (End definition for \author. This function is documented on page 5.)
\translator Commands to set the translator.
            139 \def\translator#1{\gdef\HUST@zhtranslator{#1}\hypersetup{pdfauthor={#1}}}
           140 \translator{}
             (End definition for \translator. This function is documented on page 5.)
```

```
\date A command to set the date and several commands to display date.
\dateformat<sub>141</sub> \def\date#1#2#3{
                  \setdate{#1}{#2}{#3}
            1/12
            143 }
            144 \setdatetoday
            145 \def\dateformat{~\thedateyear~年~\thedatemonth~月~\thedateday~日}
              (End definition for \date and \dateformat. These functions are documented on page 5.)
\supervisor Commands to set the supervisor.
            146 \def\supervisor#1{\gdef\HUST@zhsupervisor{#1}}
            147 \supervisor{}
              (End definition for \supervisor. This function is documented on page 5.)
```

Localization

```
Chinese localization. <sup>2</sup>
148 \def\indexname{索引}
149 \def\figurename{图}
150 \def\tablename{表}
151 \AtBeginDocument{\def\listingscaption{代码}}
152 \def\bibname{参考文献}
153 \def\contentsname{目\hspace{1em}录}
154 \def\contentsnamenospace{目录}
155 \def\appendixname{附录}
156 \def\HUST@listfigurename{插图索引}
157 \def\HUST@listtablename{表格索引}
158 \def\equationautorefname{公式}
159 \def\footnoteautorefname{脚注}
160 \def\itemautorefname~#1\null{第~#1~项\null}
161 \def\figureautorefname{图}
162 \def\tableautorefname{表}
163 \def\appendixautorefname{附录}
164 \expandafter\def\csname\appendixname autorefname\endcsname{\appendix-
  name}
165 \def\chapterautorefname~#1\null{第\zhnumber{#1}章\null}
166 \def\sectionautorefname~#1\null{#1~小节\null}
167 \def\subsectionautorefname~#1\null{#1~小节\null}
```

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

```
168 \def\subsubsectionautorefname~#1\null{#1~小节\null}
  \def\FancyVerbLineautorefname~#1\null{第~#1~行\null}
170 \def\pageautorefname~#1\null{第~#1~页\null}
171 \def\lstlistingautorefname{代码}
172 \def\definitionautorefname{定义}
173 \def\propositionautorefname{命题}
174 \def\lemmaautorefname{引理}
175 \def\theoremautorefname{定理}
176 \def\axiomautorefname{公理}
177 \def\corollaryautorefname{推论}
178 \def\exerciseautorefname{练习}
179 \def\exampleautorefname{例}
180 \def\proofautorefname{证明}
181 \SetAlgorithmName{算法}{算法}{算法索引}
182 \SetAlgoProcName{过程}{过程}
183 \SetAlgoFuncName{函数}{函数}
184 \def\AlgoLineautorefname~#1\null{第~#1~行\null}
     Internal variables.
185 \long\def\HUST@zhtitletitle{华中科技大学\\毕业设计(论文)\\[0.8cm]外
  文文献翻译}
186 \def\HUST@zhauthortitle{原文作者}
187 \def\HUST@zhtranslatortitle{翻译作者}
188 \def\HUST@zhsupervisortitle{指导教师}
     Set \listfigurename and \listtablename.
\def\listfigurename{\HUST@listfigurename}
190 \def\listtablename{\HUST@listtablename}
```

8 Style Setting

8.1 Equation Style

Allow long equation breaking between lines or pages.

191 \allowdisplaybreaks[4]

Set skip between equation and context.

```
192 \abovedisplayskip=10bp plus 2bp minus 2bp
193 \abovedisplayshortskip=10bp plus 2bp minus 2bp
194 \belowdisplayskip=\abovedisplayskip
195 \belowdisplayshortskip=\abovedisplayshortskip
```

Set equation numbering style.

196 \numberwithin{equation}{chapter}

8.2 Theorem Style

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

```
197 \theoremnumbering{arabic}
  \theoremseparator{: }
  \theorempreskip{1.2ex plus 0ex minus 1ex}
  \theorempostskip{1.2ex plus 0ex minus 1ex}
   \theoremheaderfont{\normalfont\bfseries\HEI}
   \theoremsymbol{}
  \theoremstyle{definition}
   \theorembodyfont{\normalfont}
   \newtheorem{definition}{定义}[chapter]
207
  \theoremstyle{plain}
208
  \theorembodyfont{\itshape}
  \newtheorem{proposition}{命题}[chapter]
  \newtheorem{lemma}{引理}[chapter]
212 \newtheorem{theorem}{定理}[chapter]
  \newtheorem{axiom}{公理}[chapter]
214 \newtheorem{corollary}{推论}[chapter]
215 \newtheorem{exercise}{练习}[chapter]
216 \newtheorem{example}{例}[chapter]
217 \def\proofname{\hei{证明}}
```

8.3 Floating Objects Style

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

 $\label{lineskip plus 0.1} $$ \operatorname{lineskip} \{0.7 \leq 0.1 \leq 0.1$

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

```
219 \setlength{\textfloatsep}{0.8\baselineskip plus 0.1\baselineskip mi-
nus 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.

```
220 \renewcommand{\textfraction}{0.15}
```

```
221 \renewcommand{\topfraction}{0.85}
222 \renewcommand{\bottomfraction}{0.65}
223 \renewcommand{\floatpagefraction}{0.60}
```

8.4 Table Style

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

(End definition for \tabincell. This function is documented on page ??.)

```
225 \def\@cline#1-#2\@nil{%
     \omit
226
     \@multicnt#1%
227
     \advance\@multispan\m@ne
228
     \ifnum\@multicnt=\@ne\@firstofone{&\omit}\fi
229
     \@multicnt#2%
230
     \advance\@multicnt-#1%
231
     \advance\@multispan\@ne
232
     \leaders\hrule\@height\arrayrulewidth\hfill
233
     \cr
234
```

\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

```
236 \newif\ifHUST@useoldtabular
237 \HUST@useoldtabularfalse
```

global font setting is activated.

235

OffTabFontSetting Use \TurnOffTabFontSetting to deactivate global font setting.

```
\verb|\def| TurnOffTabFontSetting{\HUST@useoldtabulartrue}| \\
```

(End definition for \TurnOffTabFontSetting. This function is documented on page 7.)

nOnTabFontSetting Use \TurnOnTabFontSetting to activate global font setting.

```
239 \def\TurnOnTabFontSetting{\HUST@useoldtabularfalse}
```

³Reference:http://tex.stackexchange.com/questions/52100/longtable-multirow-problem-with-cline-and-nopagebreak

(End definition for \TurnOnTabFontSetting. This function is documented on page 7.)

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

```
240 \AtBeginEnvironment{tabular}{
     \ifHUST@useoldtabular\else
       \fontsize{11pt}{15.4pt}\selectfont
     \fi
243
244 }
   \AtBeginEnvironment{tabularx}{
245
     \ifHUST@useoldtabular\else
       \fontsize{11pt}{15.4pt}\selectfont
     \fi
248
249 }
   \AtBeginEnvironment{longtable}{
250
     \ifHUST@useoldtabular\else
       \fontsize{11pt}{15.4pt}\selectfont
     \fi
253
254 }
```

8.5 Caption Style

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

```
255 \DeclareCaptionFont{HUST@captionfont}{\fontsize{11pt}{14.3pt}\select-
  font}
  \DeclareCaptionLabelFormat{HUST@caplabel}{#1~#2}
  \captionsetup{
     font=HUST@captionfont,
258
     labelformat=HUST@caplabel,
259
     format=hang,
260
     labelsep=quad,
261
     skip=12pt
262
263 }
     Set figure and table numbering style.
264 \renewcommand{\thetable}{\arabic{chapter}.\arabic{table}}
265 \renewcommand{\thefigure}{\arabic{chapter}-\arabic{figure}}
```

8.6 Code Highlight Style

```
\definecolor{HUST@lstgreen}{rgb}{0,0.6,0}
\definecolor{HUST@lstmauve}{rgb}{0.58,0,0.82}
```

```
\lstset{
269
     basicstyle=\footnotesize\ttfamily\linespread{1}\selectfont\FANGSONG,
270
     keywordstyle=\color{blue}\bfseries,
     commentstyle=\color{HUST@lstgreen}\itshape\KAI,
272
     stringstyle=\color{HUST@lstmauve},
273
     showspaces=false,
274
     showstringspaces=false,
275
     showtabs=false,
276
     numbers=left,
277
     numberstyle=\tiny\color{black},
278
     frame=lines,
279
     rulecolor=\color{black},
280
     breaklines=true
281
282 }
       Section Title Style
```

Set the numbering depth for section.

```
283 \setcounter{secnumdepth}{3}
```

Chapter tilte format and spacing setting.

```
284 \titleformat{\chapter}
    ₹
285
      \bfseries
286
      \HEI
287
      \centering
      \fontsize{18pt}{23.4pt}\selectfont
289
    }
290
    {
291
      \zhnumber{\thechapter}
292
    }
293
    {1em}
294
    {}
295
296 \titlespacing*{\chapter}{0pt}{0pt}{20pt}
    Section tilte format and spacing setting.
297 \titleformat*{\section}{\bfseries\HEI\fontsize{16pt}{20.8pt}\select-
  font}
298 \titlespacing*{\section}{0pt}{18pt}{6pt}
    Subsection tilte format and spacing setting.
lectfont}
```

```
300 \titlespacing*{\subsection}{0pt}{12pt}{6pt}
     Subsubsection tilte format and spacing setting.
301 \titleformat*{\subsubsection}{\bfseries\HEI\fontsize{13pt}{16.9pt}\se-
  lectfont}
302 \titlespacing*{\subsubsection}{0pt}{12pt}{6pt}
       TOC Style
 8.8
     TOC depth.
303 \setcounter{tocdepth}{1}
     TOC right margin.
304 \contentsmargin{2.0em}
     Remove vertical space between two continues chapter entries. 4
305 \newskip\HUST@oldcftbeforechapskip
306 \HUST@oldcftbeforechapskip=\cftbeforechapskip
307 \newskip\HUST@oldcftbeforesecskip
308 \HUST@oldcftbeforesecskip=\cftbeforesecskip
309 \let\HUST@oldl@chapter\l@chapter
310 \let\HUST@oldl@section\l@section
311 \let\HUST@oldl@subsection\l@subsection
312 \def\l@chapter#1#2{\HUST@oldl@chapter{#1}{#2}\cftbeforechapskip=3pt}
313 \def\l@section#1#2{\HUST@oldl@section{#1}{#2}\cftbeforechapskip=\HUST@old-
  cftbeforechapskip\cftbeforesecskip=3pt}
314 \def\l@subsection#1#2{\HUST@oldl@subsection{#1}{#2}\cftbeforesecskip=\HUST@old-
  cftbeforesecskip}
     Set LOF LOT style. <sup>5</sup>
315 \renewcommand*\cftfigpresnum{\figurename^}
316 \newlength{\HUST@cftfignumwidth@tmp}
317 \settowidth{\HUST@cftfignumwidth@tmp}{\cftfigpresnum}
  \addtolength{\cftfignumwidth}{\HUST@cftfignumwidth@tmp}
  \renewcommand{\cftfigaftersnumb}{\quad~}
  \renewcommand*\cfttabpresnum{\tablename^}
321 \newlength{\HUST@cfttabnumwidth@tmp}
322 \settowidth{\HUST@cfttabnumwidth@tmp}{\cfttabpresnum}
323 \addtolength{\cfttabnumwidth}{\HUST@cfttabnumwidth@tmp}
324 \renewcommand{\cfttabaftersnumb}{\quad~}
    <sup>4</sup>Reference:http://tex.stackexchange.com/questions/89103/
 remove-vertical-space-between-two-chapters-in-table-of-contents-in-latex
```

⁵Reference:http://www.latex-community.org/viewtopic.php?f=5&t=1838

8.9 Head & Foot Style

```
325 \pagestyle{plain}
```

8.10 List Environment Style

```
326 \setlist{noitemsep,partopsep=0pt,topsep=.8ex}
327 \setlist[1]{labelindent=\parindent}
328 \setlist[enumerate,1]{label=\arabic*.,ref=\arabic*}
329 \setlist[enumerate,2]{label*=\arabic*,ref=\theenumi.\arabic*}
330 \setlist[enumerate,3]{label=\emph{\alph*}),ref=\theenumii\emph{\alph*}}
331 \setlist[description]{font=\bfseries\HEI}
```

8.11 Footnote Style

332 \MakePerPage{footnote}

9 Specical Page

```
\frontmatter
 \mainmatter<sub>333</sub> \def\frontmatter{
 \backmatter334
                   \clearpage
                   \@mainmatterfalse
                   \pagenumbering{Roman}
             336
             337 }
                 \def\mainmatter{
             338
                   \clearpage
                   \@mainmattertrue
                   \pagenumbering{arabic}
              341
             342 }
                 \def\backmatter{
             343
                   \clearpage
             344
                   \@mainmatterfalse
             345
                   \settocdepth{chapter}
             346
                   \hypersetup{bookmarksopenlevel=0}
             348 }
               (End definition for \frontmatter, \mainmatter, and \backmatter. These functions are doc-
               umented on page 6.)
                   Title page.
             349 \def\HUST@titlepage{
                   \begin{center}
             350
                   \null
             351
                   \vskip 2cm
```

```
\left(0.5mm\right)\
         354
              {\LARGE \bfseries \sffamily \HEI \HUST@zhtitle}\\[0.35cm]
         355
              \left(\frac{1.5cm}{0.5mm}\right)
         356
              \begin{minipage}[t]{0.8\textwidth}
         357
              \TurnOffTabFontSetting
         358
              \Large
         359
              \setlength{\extrarowheight}{5pt}
         360
              \begin{tabular}{r0{: }1}
         361
                 \parbox[t][][t]{6em}{\raggedleft \emph{\HUST@zhauthortitle}} &
         362
                \parbox[t][][t]{15em}{\HUST@zhauthor}
                //
                \parbox[t][][t]{6em}{\raggedleft \emph{\HUST@zhtranslatortitle}} &
         365
                \parbox[t][][t]{15em}{\HUST@zhtranslator}
         366
                \ifthenelse{\equal{\HUST@zhsupervisor}{}}{}
         367
                //
         368
                369
                \parbox[t][][t]{15em}{\HUST@zhsupervisor}
         370
                }
         371
              \end{tabular}
         372
              \TurnOnTabFontSetting
         373
              \end{minipage}
          374
              \vfill
         375
              {\Large \dateformat}
         376
              \end{center}
         378 }
\maketitle Commands to generate title page.
\makecover<sub>379</sub> \def\maketitle{
              \begingroup
         380
              \hypersetup{allcolors=black}
              \let\HUST@oldthepage\thepage
         382
              \def\thepage{封面}
         383
              \begin{titlepage}
         384
                \thispagestyle{empty}
         385
                \HUST@titlepage
         386
              \end{titlepage}
         387
              \let\thepage\HUST@oldthepage
         388
              \setcounter{page}{1}
         389
              \endgroup
         390
         391 }
```

{\LARGE \HUST@zhtitletitle}\\[0.5cm]

353

```
392 \let\makecover\maketitle
                   (End definition for \maketitle and \makecover. These functions are documented on page 6.)
\tableofcontents A command to generate table of contents.
                 393 \let\HUST@tableofcontents\tableofcontents
                    \def\tableofcontents{
                      \pdfbookmark{\contentsnamenospace}{\contentsnamenospace}
                      \HUST@tableofcontents
                 396
                      \clearpage
                 398 }
                   (End definition for \tableofcontents. This function is documented on page 6.)
   \bibliography A command to generate bibliography page.
                 399 \def\thudot{\unskip.}
                 400 \def\thumasterbib{[Master Thesis]}
                 401 \def\thuphdbib{[Doctor Thesis]}
                    \bibliographystyle{thuthesis}
                    \let\HUST@bibliography\bibliography
                    \def\bibliography#1{
                      \clearpage
                 405
                      \phantomsection
                 406
                      \addcontentsline{toc}{chapter}{\bibname}
                      \begingroup
                 408
                      \fontsize{10.5pt}{10.5pt}\selectfont
                 409
                      \setlength\bibsep{0.5ex}
                 410
                      \HUST@bibliography{#1}
                      \endgroup
                 412
                 413 }
                   (End definition for \bibliography. This function is documented on page 6.)
                  The appendix environment.
        appendix
                 414 \newif\ifHUST@inappendix
                 415 \HUST@inappendixfalse
                 416 \newif\ifHUST@appendix@resetmainmatter
                    \HUST@appendix@resetmainmatterfalse
                    \renewenvironment{appendix}{
                      \if@mainmatter
                 419
                        \HUST@appendix@resetmainmatterfalse
                 420
                      \else
                 421
```

\HUST@appendix@resetmainmattertrue

422

```
\fi
               424
                    \appendixtitletocon
               425
                    \appendices
               426
                    \titleformat{\chapter}
               427
                    {
               428
                      \bfseries\HEI
               429
                      \centering
               430
                      \fontsize{18pt}{23.4pt}\selectfont
               431
               432
                    {\appendixname\,\thechapter}
                    {1em}
               434
                    {}
               435
                    \HUST@inappendixtrue
               436
               437 }{
                    \endappendices
               438
                    \HUST@inappendixfalse
               439
                    \ifHUST@appendix@resetmainmatter
               440
                      \HUST@appendix@resetmainmatterfalse
               441
                      \@mainmatterfalse
                    \else\fi
               443
               444 }
\listoffigures A command to generate list of figures.
                  \let\HUST@listoffigures\listoffigures
                  \def\listoffigures{
                    \clearpage
                    \ifHUST@inappendix
               448
                      \addtocounter{chapter}{1}
               449
                      \def\listfigurename{\appendixname\,\thechapter\hspace{1em}\HUST@listfigurename}
               450
               451
                      \def\listfigurename{\HUST@listfigurename}
               452
                    \fi
               453
                    \phantomsection
               454
                    \ifHUST@inappendix
               455
                      \verb|\addcontentsline{toc}{chapter}{\thechapter\thechapter\thechapter} \\
               456
                  figurename}
                    \else
               457
                      \addcontentsline{toc}{chapter}{\listfigurename}
               458
               459
                    \HUST@listoffigures
```

\@mainmattertrue

423

```
462 }
                (End definition for \listoffigures. This function is documented on page 6.)
\listoftables A command to generate list of tables.
              463 \let\HUST@listoftables\listoftables
                 \def\listoftables{
                    \clearpage
              465
                    \ifHUST@inappendix
              466
                      \addtocounter{chapter}{1}
              467
                      \def\listtablename{\appendixname\,\thechapter\hspace{1em}\HUST@listtablename}
              468
                    \else
                      \def\listtablename{\HUST@listtablename}
              470
                    \fi
              471
                    \phantomsection
              472
                    \ifHUST@inappendix
              473
                      \addcontentsline{toc}{chapter}{\thechapter\hspace{1em}\HUST@list-
              474
                 tablename}
                    \else
              475
                      \addcontentsline{toc}{chapter}{\listtablename}
              476
                    \fi
                    \HUST@listoftables
              478
                    \def\listtablename{\HUST@listtablename}
              479
              480 }
                (End definition for \listoftables. This function is documented on page 6.)
```

\def\listfigurename{\HUST@listfigurename}

10 Other Command

```
\email

481 \def\email#1{

482 \href{mailto:#1}{\texttt{#1}}}

483 }

(End definition for \email. This function is documented on page 7.)

484 %</class>
```

IV 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.

A \bib.	liographystyle
\abovedisplayshortskip 193,195 \bib	name 152, 407
\abovedisplayskip 192,194 \bibs	sep
\addcontentsline\bot	tomfraction
407, 456, 458, 474, 476	
\addtocounter 449,467	C
\addtolengtn 318.323	tionsetup
\AlgoLineautorefname 184	tering
\allowdisplaybreaks 191	beforesecskip 308, 313, 314
\alph 330	figaftersnumb
\annendices 426	fignumwidth
appendix (environment) 6 414	figpresnum 315,317
\annendix 6	tabaftersnumb 324
\annondivautorofnamo 163	tabnumwidth
\annondivnamo 155 164 433 450 468	tabpresnum 320,322
\annondivtitletecon 125	pter 284, 296, 427
\arabic 264 265 228 220	pterautorefname
\arrayrulewidth 233,235 \CJK	glue 45
\AtBeginDocument	number 76
\AtBeginEnvironment . 240, 245, 250 \clea	arpage
\author 5, 5, <u>137</u>	. 334, 339, 344, 397, 405, 447, 465
\axiomautorefname	or 271, 272, 273, 278, 280
B \con-	tentsmargin
	tentsname
\baselineskip 218, 219 \con^-	tentsnamenospace 154,395
\core	ollaryautorefname 177
\begin 224, 350, 357, 361, 384 \cr \belowdisplayshortskip 195	
\boloudignlayskin 104	ame
\bfseries 201, 271,	rentOption 4
286, 297, 299, 301, 331, 355, 429	D
	e 5, 5, <u>141</u>

\dateformat	н
\DeclareCaptionFont 255	\HEI 8, 8, <u>46</u> , 49, <u>68</u> , 201,
\DeclareCaptionLabelFormat 256	287, 297, 299, 301, 331, 355, 429
\DeclareOption 4	\hei $8, 8, \underline{49}, \underline{71}, 217$
\defaultfontfeatures 35,59	\hfill 233
\defaultjfontfeatures 65	\href 482
\definecolor 266, 267	\hrule 233
\definitionautorefname 172	\hskip 45
	\hspace 153, 450, 456, 468, 474
E	\hypersetup 99, 135, 139, 347, 381
\email 7,7, <u>481</u>	I
\emph 330, 362, 365, 369	\ifLuaTeX
\end 224, 372, 374, 377, 387	\ifnum
\endappendices 438	\ifthenelse 86,367
\endcsname 164	\ifXeTeX 8, 22
environments:	\indexname 148
appendix $6, \underline{414}$	\intextsep
\equal 367	\isundefined 86
\equationautorefname 158	\itemautorefname
\errmessage 13	\itshape 209,272
\errorcontextlines 11	•
\exampleautorefname 179	J
\exerciseautorefname 178	\jfontspec 71,72,73
\expandafter 164	K
\extrarowheight 360	\KAI 8, 8, <u>47</u> , 50, <u>69</u> , 272
F	\kai
\FancyVerbLineautorefname 169	T
\FANGSONG 8, 8, 48, 51, 70, 270	L \LARGE
\fangsong	\Large
\figureautorefname 161	\leaders
\figureame 149,315	\lemmaautorefname
\floatpagefraction 223	\linespread
\fontsize 242, 247, 252,	\linewidth 354,356
255, 289, 297, 299, 301, 409, 431	\listfigurename
\footnoteautorefname 159	189, 450, 452, 458, 461
\footnotesize	\listingscaption
\frontmatter 6, 333	\listoffigures 6, <u>445</u>
(\listoftables 6, <u>463</u>
G	\listtablename 190, 468, 470, 476, 479
\geometry 79	\LoadClass 6

\lstlistingautorefname	\pdfpagewidth
	319, 324
N	R
\newCJKfontfamily 46,47,48	\raggedleft 362, 365, 369
\newif	\relax 11,12
\newjfontfamily 68, 69, 70 \newlength 316, 321	\rule 354, 356
\newlinechar	S
\newskip 305, 307	\section 297,298
\newtheorem 206,	\sectionautorefname 166
210, 211, 212, 213, 214, 215, 216	\selectfont 77, 242, 247, 252, 255,
\noalign235	270, 289, 297, 299, 301, 409, 431
\nobreak235	\SetAlgoFuncName
\normalfont 201, 205	\SetAlgoProcName 182
\null 160, 165,	\SetAlgorithmName 181
166, 167, 168, 169, 170, 184, 351	\setCJKmainfont 38
\numberwithin 196	\setCJKmonofont 42
0	\setCJKsansfont 41
O \omit 226, 229	\setcounter 283,303,389
\OMIT 220, 229	\setdate 142
P	\setdatetoday 144
\pageautorefname 170	\setfnumgsym 115
\pageheight 91	\setlength . 94, 95, 218, 219, 360, 410
\pagenumbering 336,341	\setlist . 326, 327, 328, 329, 330, 331
\pagestyle 325	\setmainfont 26, 56
\pagewidth 86,90	\setmainjfont 61
\paperheight 88,91	\setmonofont 34, 58
\paperwidth 87,90	\setsansfont
\parbox 362, 363, 365, 366, 369, 370	\setsansjfont 64
\parindent 94, 327	\settocdepth 346
\parskip 95	\settowidth 317, 322
\PassOptionsToClass 4	\sffamily 355
\pdfbookmark	\subsection 299,300
\pdfpageheight 88	\subsectionautorefname 167

\subsubsection 301,302	\HUST@oldthepage 382,388
\subsubsectionautorefname 168	\HUST@tableofcontents 393,396
\supervisor 5, 5, <u>146</u>	\HUST@titlepage 349,386
_	$\verb \HUST@useoldtabularfalse $
T	237, 239
\tabincell <u>224</u>	\HUST@useoldtabulartrue 238
\tableautorefname 162	\HUST@zhauthor 137,363
\tablename 150,320	\HUST@zhauthortitle 186,362
\tableofcontents $6, \underline{393}$	\HUST@zhsupervisor 146,367,370
TEX and LATEX 2_{ε} commands:	\HUST@zhsupervisortitle 188,369
\@cline 225	\HUST@zhtitle 135,355
\@firstofone	\HUST@zhtitletitle 185,353
\@height 233	\HUST@zhtranslator 139,366
$\ensuremath{\texttt{Qmainmatterfalse}}$. 335, 345, 442	\HUST@zhtranslatortitle 187,365
\@mainmattertrue 340,423	\if@mainmatter 419
\@multicnt 227, 229, 230, 231	\ifHUST@appendix@resetmain-
\@multispan 228,232	matter 416,440
\HUST@appendix@resetmain-	\ifHUST@inappendix
matterfalse 417, 420, 441	414, 448, 455, 466, 473
\HUST@appendix@resetmain-	\ifHUST@useoldtabular
mattertrue 422	236, 241, 246, 251
\HUST@bibliography 403,411	\1@chapter 309,312
\HUST@cftfignumwidth@tmp	\l@section 310,313
316, 317, 318	\1@subsection 311,314
$\verb \HUST@cfttabnumwidth@tmp $	\m@ne228
321, 322, 323	\textfloatsep 219
\HUST@inappendixfalse 415,439	\textfraction 220
\HUST@inappendixtrue 436	\texttt 482
\HUST@listfigurename	\textwidth
156, 189, 450, 452, 456, 461	\thechapter 292, 433, 450, 456, 468, 474
\HUST@listoffigures 445,460	\thedateday
\HUST@listoftables 463,478	\thedatemonth 145
\HUST@listtablename	\thedateyear 145
157, 190, 468, 470, 474, 479	\theenumi 329
\HUST@oldcftbeforechapskip	\theenumii
305, 306, 313	\thefigure 265
$\MD \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	\theoremautorefname 175
307, 308, 314	\theorembodyfont 205,209
\HUST@oldl@chapter 309,312	\theoremheaderfont 201
\HUST@oldl@section 310,313	\theoremnumbering 197
\HUST@oldl@subsection 311,314	\theorempostskip 200

\theorempreskip 199	\ttfamily 270
\theoremseparator 198	\TurnOffTabFontSetting . 7, 238, 358
\theoremstyle 204,208	\TurnOnTabFontSetting7, 239, 373
\theoremsymbol 202	T.I.
\thepage 382,383,388	U
\thetable 264	\unskip
\thispagestyle 385	\mathbf{v}
\thudot 399	\vbox 67
\thumasterbib 400	\vfill 375
\thuphdbib 401	\vskip 235, 352
\tiny 278	V
\title 5,5, <u>135</u>	X \xeCJKsetup 43
\titleformat . 284, 297, 299, 301, 427	\xeCJRsetup 45
\titlespacing 296, 298, 300, 302	Z
\topfraction	\zhnumber 76, 165, 292
\translator 5, 5, <u>139</u>	\ziju 45,67