华东理工大学博士论文 LaTeX 模板

摘要

本模板针对有一定 LaTeX 基础的同学,提供了华东理工大学博士学位论文写作模板,简要给出了图、表、算法等示例。如果读者对 LaTeX 还不熟悉,建议以参考文献 [1] 作为入门。

关键词 华东理工大学; 毕业论文; LaTeX

两行英文标题 换行方式

Abstract

This is English abstract.

Keywords AAA; BBB; CCC

長目

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第1章 模板说明

本模板基于北京理工大学硕士(博士)学位论文LaTeX模板^[2] 修改。修改内容主要包括:

- 1. 页眉页脚样式、高度、页边距;
- 2. 左右页边距;
- 3. 行间距;
- 4. 公式、图、表前后间距;
- 5. 各级标题前后间距和样式;
- 6. 列表、枚举的缩进;
- 7. 其他样式等。

下面给出论文中常用的各类图、表、算法、公式、参考文献等的使用方法。

注 1.1. 本文默认读者已经知道了 LaTeX 的基本语法,并可以熟练使用 LaTeX 写期刊论文。下面仅介绍重要的、常用的示例,并不加以详细解释。

1.1 编译

编译顺序为: xelatex->bibtex->xelatex->xelatex。 推荐使用 VSCode + LaTeX Workshop 的组合写论文。

1.2 图

图1.1是一个标准的图。

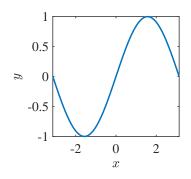


图 1.1 示意图 Fig. 1.1 Demo

图1.2是一行多列的子图安排方式。

图1.3是多行多列的子图安排方式。如果想让这段话出现在图1.2之后,则可以在图1.2中使用\begin{figure}[H]命令。

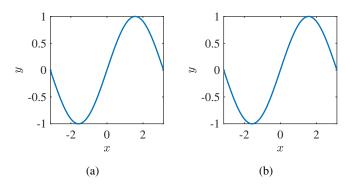


图 1.2 一行多列的子图安排方式。(a) 子图 1, (b) 子图 2

Fig. 1.2 Subfigure. (a) subfigure 1, (b) subfigure 2

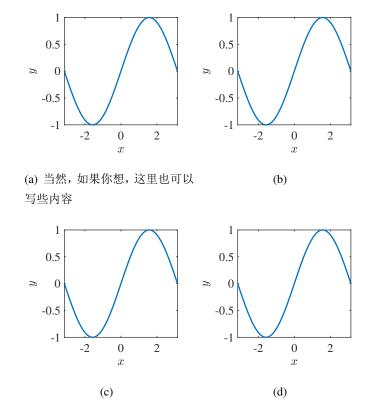


图 1.3 子图示意图。(a) 子图 1, (b) 子图 2, (c) 子图 3, (d) 子图 4

Fig. 1.3 Subfigure 1, (b) subfigure 2, (c) subfigure 3, (d) subfigure 4

1.3 表格

表1.1是一个标准的三线表格。

表 1.1 这是一个标准表格

Table 1.1 This is a standard table

名称 1	名称 2
A	В
A	В

表1.2是一个带脚注的复杂表格。可以看到这段文字没有出现在上一页的末尾(尽管上一页的末尾还有空间),是因为表1.1中使用了\begin{table}[H]命令。

表 1.2 这是一个带脚注的复杂表格。

Table 1.2 This is a complex table

	BBB ^b		CC	CC	DDD	
AAA	A1	B1	C1	D1	E1	F1
	A2	B2	C2	D2	E2	F2
AAA1	20361	27.02	20901	27.72	21711	28.14
AAA2	10051	13.34	10051	13.33	10311	13.36

a 脚注 1 b 脚注 2

\resizebox{1\textwidth}{!}{}

实现。此表格还采用了\specialrule $\{0pt\}\{3pt\}\{3pt\}$ 命令来调整倒数第 3 行-倒数第 2 行的间距,使表格更美观。

表 1.3 这是一个较宽的表格,需要缩放到页宽范围

Table 1.3 This is a complex table

AAA	δ	eta^a	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY
	2.549	2.549	30/30	30/30	30/30	30/30
AAA	AAA	2.718	30/30	30/30	30/30	30/30
	AAA	3.094	30/30	30/30	30/30	30/30
	AAA	3.200	30/30	30/30	30/30	30/30
DDD	2.128	2.128	30/30	30/30	30/30	30/30
BBB	BBB	2.500	30/30	30/30	30/30	30/30

a 脚注 1

当然,也可以将表1.3缩放到指定宽度,如80%页面宽度,见表1.4。

表1.3是一个较宽的表格,需要缩放到页宽范围,这可以通过命令

表 1.4 这是一个较宽的表格,需要缩放到 80% 页宽范围

Table 1.4 This is a complex table

AAA	δ	eta^a	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY	XXXXXXXXXXX YYY
	2.549	2.549	30/30	30/30	30/30	30/30
AAA	AAA	2.718	30/30	30/30	30/30	30/30
	AAA	3.094	30/30	30/30	30/30	30/30
	AAA	3.200	30/30	30/30	30/30	30/30
BBB	2.128 BBB	2.128 2.500	30/30 30/30	30/30 30/30	30/30 30/30	30/30 30/30
BBB						

a 脚注 1

如果表格缩放到页面宽度后字体太小看不清,这时你可能需要通过使用 \begin{sidewaystable} 命令来实现一个横着放置的宽表,如表1.5所示。

表 1.5 sidewaystable 表格 Table 1.5 sidewaystable

ABC1 5.51e-01(8.20e-02) 8.23e-01(7.55e-02) 4.3e-01(7.5e-03)+ 8.73e-01(9.47e-03) 8.73e-01(7.58e-02) 8.73e-01(7.58e-02) 8.73e-01(7.58e-02) 8.73e-01(7.58e-02) 5.38e-01(1.53e-04)+ ABC2 2.38e-01(7.85e-02) 4.81e-01(7.22e-02)+ 0.00e+000(0.00e+00) 9.77e-02(1.99e-01)+ 4.48e-01(7.58e-02) 5.38e-01(1.63e-04)+ ABC3 4.83e-01(6.85e-02) 8.83e-01(3.3e-02)+ 1.09e-02(6.93e-02) 9.77e-02(1.36e-01)+ 1.02e-01(1.49e-02) 1.02e-01(1.49e-02) ABC4 0.00e+000(0.00e+00) 5.83e-01(1.75e-01) 1.73e-01(1.75e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.73e-01(1.36e-01) 1.74e-01(1.36e-01) 1.74e-01(1.36e-01) <td< th=""><th>Problem</th><th>AAA1</th><th>AAA2</th><th>BBB1</th><th>BBB2</th><th>CCC1</th><th>CCC2</th></td<>	Problem	AAA1	AAA2	BBB1	BBB2	CCC1	CCC2
2.38e-01(7.85e-02) 481e-01(2.22e-02) 4.81e-01(7.85e-02) 4.81e-01(7.85e-02) 4.82e-01(3.03e-02) 4.82e-01(3.03e-02) 4.82e-01(3.03e-02) 4.83e-01(6.85e-02) 8.83e-01(9.03e-02)+ 9.19e-02(6.93e-02) 9.82e-01(3.03e-02)+ 9.71e-01(1.49e-02) 0.00e+000(0.00e+00) 5.83e-01(1.33e-01)+ 1.39e-01(1.63e-01) 1.79e-01(1.76e-01)+ 1.55e-01(1.33e-01) 3.73e-01(7.27e-02) 4.10e-01(2.54e+00)+ 1.58e+01(8.86e-01) 4.49e+01(2.04e+00)+ 2.74e+01(2.15e+00) 5.54e+01(7.97e-01) 5.51e+01(1.11e+00)= 5.66e+01(5.68e-01) 3.77e+01(3.75e-01)+ 3.06e+01(4.3e-01)+ 3.06e+01(2.3e-01)+ 3.06e+01(3.3e-01)+ 3.06e+01(1.3e-01)+ 3.3e+01(1.1e-01) 3.3e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.0e+01(2.3e-01)+ 3.0e+01(2.3e-01)+ 3.0e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.0e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.2e+01(1.3e-01)+ 3.0e+01(2.3e-01)+ 3.0e+01(2.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ 3.0e+01(3.3e-01)+ <td>ABC1</td> <td>5.51e-01(8.20e-02)</td> <td>8.23e-01(1.75e-02)+</td> <td>3.17e-02(3.99e-02)</td> <td>8.46e-01(9.72e-03)+</td> <td>8.32e-01(9.47e-03)</td> <td>8.71e-01(1.51e-04)+</td>	ABC1	5.51e-01(8.20e-02)	8.23e-01(1.75e-02)+	3.17e-02(3.99e-02)	8.46e-01(9.72e-03)+	8.32e-01(9.47e-03)	8.71e-01(1.51e-04)+
4.83e-01(6.85e-02) 8.83e-01(9.03e-02)+ 9.19e-02(6.93e-02) 9.3e-01(3.03e-02)+ 9.71e-01(1.49e-02) 0.00e+000(0.00e+00) 5.83e-01(1.33e-01)+ 0.00e+00(0.00e+00) 9.58e-02(2.51e-01)+ 1.55e-01(1.53e-01) 3.73e-01(7.27e-02) 4.10e-01(2.62e-02)= 1.39e-01(1.63e-01) 1.79e-01(1.76e-01)= 1.20e-01(7.40e-02) 1.21e+01(1.64e+00) 4.31e+01(2.54e+00)+ 1.58e+01(3.75e-01)+ 2.74e+01(2.76e-02) 2.74e+01(2.76e-02) 2.85e+01(3.79e-01) 3.27e+01(3.69e-01)+ 3.06e+01(2.38e-01)+ 3.06e+01(2.38e-01)+ 3.38e+01(2.36e-01) 2.95e+01(1.83e+00) 2.98e+01(1.33e-01)+ 3.25e+01(3.3e-01)+ 3.25e+01(3.3e-01)+ 3.25e+01(3.3e-01)+ 2.85e+01(1.83e+00) 2.83e+01(1.87e+00)+ 3.25e+01(1.33e-01)+ 3.25e+01(3.3e-01)+ 3.25e+01(3.3e-01)+ 2.85e+01(1.32e-02) 2.97e+01(1.28re+00)+ 3.25e+01(1.26e-01)+ 3.25e+01(1.36e-02)+ 3.25e+01(3.3e-01)+ 2.85e+01(1.33e-02) 2.97e+01(1.28re+00)+ 3.26e+01(1.26e-03)+ 3.26e+01(3.6e-02)+ 3.26e+01(3.6e-02)+ 2.85e+01(1.33e-02) 2.97e+01(1.36e-03)+ 3.07e+01(1.21e+00) 3.14e+01(2.3e-03)+ 3.9e-01(1.66e-03)+ 2.95e-01(1.	ABC2	2.38e-01(7.85e-02)	4.81e-01(2.22e-02)+	0.00e+00(0.00e+000)	9.77e-02(1.99e-01)+	4.48e-01(7.58e-02)	5.38e-01(1.63e-04)+
0.00e+00(0.00e+00) 5.83e-01(1.33e-01)+ 0.00e+00(0.00e+00) 9.58e-02(5.51e-01)+ 1.55e-01(1.53e-01) 3.73e-01(7.27e-02) 4.10e-01(2.62e-02)= 1.39e-01(1.63e-01) 1.79e-01(1.70e-01)= 1.20e-01(7.40e-02) 1.21e+01(1.64e+00) 4.31e+01(2.54e+00)+ 1.58e+01(8.86e-01) 4.49e+01(2.04e+00)+ 2.74e+01(2.15e+00) 2.55e+01(3.9e-01) 3.27e+01(3.69e-01)+ 3.06e+01(4.3e-01)+ 3.06e+01(2.3e-01)+ 3.28e+01(2.3e-01) 2.95e+01(3.10e-01) 2.98e+01(4.45e-01)+ 3.06e+01(2.3e-01)+ 3.0e+01(2.3e-01)+ 3.23e+01(2.3e-01) 2.95e+01(1.82e+00) 2.67e+01(1.82e+00)+ 2.67e+01(1.3e-01)+ 3.0e+01(2.3e-01)+ 3.23e+01(2.3e-01) 2.87e+01(1.82e+00) 2.67e+01(1.82e+00)+ 2.76e+01(2.3e-01)+ 3.23e+01(2.3e-01) 3.25e+01(3.3e-01)+ 2.87e+01(1.32e+00) 2.60e+01(8.95e-01)+ 2.76e+01(2.3e-01)+ 3.25e+01(3.3e-01)+ 3.25e+01(3.3e-01)+ 2.85e+01(1.22e+00) 2.60e+01(8.95e-01)+ 2.70e+01(1.3e+00)+ 3.74e+01(1.3e+00)+ 3.9e+01(2.3e-01)+ 2.85e+01(2.3e-02) 1.09e-01(3.9e-02)+ 2.70e-02(4.19e-02) 1.09e-01(4.3e-03)+ 7.14e-01(2.3e-02)+ 7.26e-01(3.3e-04)+	ABC3	4.83e-01(6.85e-02)	8.83e-01(9.03e-02)+	9.19e-02(6.93e-02)	9.82e-01(3.03e-02)+	9.71e-01(1.49e-02)	1.02e+00(3.01e-04)+
3.73e-01(7.27e-02) 4.10e-01(2.62e-02)= 1.39e-01(1.63e-01) 1.79e-01(1.76e-01)= 1.20e-01(7.40e-02) 1.21e+01(1.64e+00) 4.31e+01(2.54e+00)+ 1.58e+01(8.86e-01) 4.49e+01(2.04e+00)+ 2.74e+01(2.15e+00) 5.54e+01(7.97e-01) 5.51e+01(1.11e+00)= 5.66e+01(5.68e-01) 3.40e+01(3.75e-01)+ 2.74e+01(3.16e-01) 2.86e+01(6.99e-01) 3.27e+01(3.69e-01)+ 3.06e+01(4.13e-01) 3.40e+01(2.81e-01)+ 3.38e+01(2.36e-01) 2.95e+01(1.83e+00) 2.98e+01(1.82e+00)+ 2.66e+01(2.88e-01) 3.09e+01(2.36e-01) 3.26e+01(3.36e-01) 2.47e+01(1.83e+00) 2.83e+01(1.82e+00)+ 2.67e+01(1.28e+00) 2.98e+01(1.03e+00)+ 3.26e+01(3.36e-01) 2.87e+01(1.44e+00) 3.25e+01(1.87e+00)+ 3.26e+01(5.56e-01) 3.40e+01(2.36e-01) 3.40e+01(2.36e-01) 2.85e+01(1.25e+00) 2.97e+01(1.87e+00)+ 3.07e+01(1.21e+00) 3.14e+01(1.74e+00)+ 3.19e+01(7.18e-01) 2.85e+01(1.25e+00) 2.97e+01(1.86e-03)+ 7.14e-01(2.36e-03)+ 7.29e-01(3.36e-02)+ 7.39e-01(3.36e-02)+ 2.85e+01(1.25e+00) 2.94e-01(1.86e-03)+ 7.16e-01(2.26e-03)+ 7.29e-01(1.26e-03)+ 2.96e-01(2.35e-02) 1.30e-01(2.3	ABC4	0.00e+00(0.00e+00)	5.83e-01(1.33e-01)+	0.00e+00(0.00e+000)	9.58e-02(2.51e-01)+	1.55e-01(1.53e-01)	6.77e-01(1.16e-01)+
1.21e+01(1.64e+00)4.31e+01(2.54e+00)+1.58e+01(8.86e-01)4.49e+01(2.04e+00)+2.74e+01(2.15e+00)5.54e+01(7.97e-01)5.51e+01(1.11e+00)=5.66e+01(5.68e-01)5.87e+01(3.75e-01)+2.87e+01(3.75e-01)+2.87e+01(3.26e-01)2.86e+01(6.99e-01)3.27e+01(1.11e+00)=3.06e+01(4.13e-01)3.06e+01(2.38e-01)3.38e+01(2.38e-01)2.95e+01(3.10e-01)2.98e+01(1.45e-01)+3.06e+01(3.28e-01)2.98e+01(1.03e+00)+3.23e+01(2.38e-01)2.87e+01(1.32e+00)2.83e+01(1.82e+00)+2.60e+01(3.28e-01)3.22e+01(3.28e-01)3.38e+01(2.38e-01)2.85e+01(1.22e+00)3.25e+01(1.37e+00)+3.22e+01(5.55e-01)3.41e+01(2.36e-01)+3.23e+01(3.8e-01)2.85e+01(1.22e+00)2.60e+01(3.94e-02)+2.50e+01(6.55e-01)3.41e+01(2.34e-01)+3.23e+01(3.8e-01)2.85e+01(1.32e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)4.93e-03(1.36e-02)3.06e+01(0.00e+00)3.06e+01(3.3e-01)3.16e+01(1.34e-01)+3.19e+01(1.36e-01)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.35e-01)4.57e-01(2.20e-01)=4.25e-01(1.69e-01)1.28e-01(6.25e-04)1.30e-01(1.36e-03)+1.17e-01(2.19e-02)1.25e-01(1.36e-03)+1.17e-01(2.19e-02)1.09e-01(2.29e-01)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)1.60/41.38e+00(3.38e-02)+1.36e+00(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABC6	3.73e-01(7.27e-02)	4.10e-01(2.62e-02)=	1.39e-01(1.63e-01)	1.79e-01(1.76e-01)=	1.20e-01(7.40e-02)	4.33e-01(1.39e-04)+
5.54e+01(7.97e-01) 5.51e+01(1.11e+00)= 5.66e+01(5.68e-01) 5.87e+01(3.75e-01)+ 5.81e+01(4.11e-01) 2.86e+01(6.99e-01) 3.27e+01(3.69e-01)+ 3.06e+01(4.13e-01) 3.40e+01(2.81e-01)+ 3.38e+01(2.36e-01) 2.95e+01(3.10e-01) 2.98e+01(4.45e-01)+ 3.06e+01(2.38e-01) 3.40e+01(2.81e-01)+ 3.23e+01(2.38e-01) 2.47e+01(1.83e+00) 2.83e+01(1.82e+00)+ 2.67e+01(1.28e+00) 2.98e+01(1.03e+00)+ 3.22e+01(3.74e-01)+ 2.87e+01(1.44e+00) 3.25e+01(3.74e-01)+ 3.22e+01(5.55e-01) 2.98e+01(1.03e-01)+ 3.23e+01(2.6e-01) 2.87e+01(1.72e+00) 2.97e+01(1.87e+00)+ 2.50e+01(5.55e-01) 2.76e+01(2.78e-01)+ 3.22e+01(3.08e-01) 2.85e+01(1.72e+00) 2.97e+01(1.87e+00)+ 3.07e+01(1.21e+00) 3.14e+01(1.74e+00)+ 3.9e+01(3.38e-01) 4.93e-03(1.36e-02) 1.09e-01(3.94e-02)+ 2.70e-02(4.19e-02) 1.09e-01(4.31e-02)+ 7.39e-01(0.00e+00) 5.26e-01(1.33e-01) 5.34e-01(1.69e-01)= 4.76e-01(2.36e-03)+ 1.25e-01(1.26e-03)+ 1.25e-01(1.26e-03)+ 1.09e-01(4.66e-02) 1.29e-01(1.86e-03)+ 1.17e-01(2.19e-02) 1.57e+00(3.60e-02)+ 1.609e-01(2.29e-01) 1.600/04 <td>ABD1</td> <td>1.21e+01(1.64e+00)</td> <td>4.31e+01(2.54e+00)+</td> <td>1.58e+01(8.86e-01)</td> <td>4.49e+01(2.04e+00)+</td> <td>2.74e+01(2.15e+00)</td> <td>3.34e+01(3.46e+00)+</td>	ABD1	1.21e+01(1.64e+00)	4.31e+01(2.54e+00)+	1.58e+01(8.86e-01)	4.49e+01(2.04e+00)+	2.74e+01(2.15e+00)	3.34e+01(3.46e+00)+
2.86e+01(6.99e-01)3.27e+01(3.69e-01)+3.06e+01(4.13e-01)3.40e+01(2.81e-01)+3.23e+01(2.36e-01)2.95e+01(3.10e-01)2.98e+01(4.45e-01)+3.06e+01(2.38e-01)3.09e+01(1.03e+00)+3.23e+01(2.38e-01)2.47e+01(1.83e+00)2.83e+01(1.83e+00)+2.67e+01(1.28e+00)2.98e+01(1.03e+00)+3.23e+01(3.38e-01)2.87e+01(1.44e+00)3.25e+01(3.74e-01)+3.22e+01(5.55e-01)3.41e+01(2.05e-01)+3.08e+01(2.16e-01)2.85e+01(1.44e+00)2.60e+01(8.95e-01)+3.22e+01(5.55e-01)3.41e+01(2.05e-01)+3.28e+01(2.16e-01)2.85e+01(1.72e+00)2.50e+01(6.55e-01)3.74e+01(1.74e+00)+3.19e+01(2.18e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(2.18e-01)4.93e-03(1.36e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(6.99e-04)5.26e-01(1.33e-01)3.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=1.25e-01(1.60e-02)1.09e-01(4.66e-02)1.26e-01(7.35e-04)1.76e-01(1.11e-02)+1.27e-01(1.11e-03)+1.23e-01(1.04e-03)3.94e-01(2.29e-01)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD2	5.54e+01(7.97e-01)	5.51e+01(1.11e+00)=	5.66e+01(5.68e-01)	5.87e+01(3.75e-01)+	5.81e+01(4.11e-01)	5.86e+01(3.19e-01)+
2.95e+01(3.10e-01)2.98e+01(4.45e-01)+3.06e+01(2.38e-01)3.09e+01(2.48e-01)+3.23e+01(2.38e-01)2.47e+01(1.83e+00)2.83e+01(1.82e+00)+2.67e+01(1.28e+00)2.98e+01(1.03e+00)+3.08e+01(8.79e-01)2.87e+01(1.83e+00)3.25e+01(3.74e-01)+3.22e+01(5.55e-01)3.41e+01(2.05e-01)+3.08e+01(2.16e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(2.78e-01)+3.9e+01(2.16e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)2.85e+01(1.72e+00)2.97e+01(1.86e-02)+2.70e-02(4.19e-02)1.09e-01(4.31e-02)+3.19e+01(7.18e-01)4.93e-03(1.36e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(6.96e-04)6.23e-01(1.33e-01)5.34e-01(1.6e-01)1.26e-01(7.35e-04)1.25e-01(1.26e-03)-1.29e-01(6.99e-04)1.09e-01(4.66e-02)1.29e-01(1.38e-03)+1.71e-01(2.19e-02)1.18e-01(1.11e-02)+1.75e-01(1.06e-03)-1.09e-01(2.29e-01)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD4	2.86e+01(6.99e-01)	3.27e+01(3.69e-01)+	3.06e+01(4.13e-01)	3.40e+01(2.81e-01)+	3.38e+01(2.36e-01)	3.49e+01(1.85e-01)+
2.47e+01(1.83e+00)2.83e+01(1.82e+00)+2.67e+01(1.28e+00)2.98e+01(1.03e+00)+3.08e+01(8.79e-01)2.87e+01(1.44e+00)3.25e+01(3.74e-01)+3.22e+01(5.55e-01)3.41e+01(2.05e-01)+3.40e+01(2.16e-01)1.93e+01(2.52e+00)2.60e+01(8.95e-01)+2.50e+01(6.55e-01)2.76e+01(2.78e-01)+2.82e+01(3.08e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)4.93e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(3.34e-03)+7.39e-01(8.54e-04)6.23e-01(2.53e-02)0.00e+00(0.00e+00)1.00e+00(0.00e+00)4.57e-01(2.20e-01)=6.23e-01(1.66e-01)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.35e-04)1.25e-01(1.26e-03)-1.29e-01(1.04e-03)1.09e-01(4.66e-02)1.39e-01(1.36e-03)+1.17e-01(2.19e-02)1.18e-01(1.11e-02)+1.27e-01(1.04e-03)3.94e-01(2.29e-01)1.38e+00(3.38e-02)+1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD5	2.95e+01(3.10e-01)	2.98e+01(4.45e-01)+	3.06e+01(2.38e-01)	3.09e+01(2.48e-01)+	3.23e+01(2.38e-01)	3.29e+01(1.74e-01)+
2.87e+01(1.44e+00)3.25e+01(3.74e-01)+3.22e+01(5.55e-01)3.41e+01(2.05e-01)+3.40e+01(2.16e-01)1.93e+01(2.52e+00)2.60e+01(8.95e-01)+2.50e+01(6.55e-01)2.76e+01(2.78e-01)+2.82e+01(3.08e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)4.93e-03(1.36e-02)1.09e-01(3.94e-02)+2.70e-02(4.19e-02)1.09e-01(4.31e-02)+5.89e-02(5.15e-02)6.23e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(8.54e-04)6.23e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=6.23e-01(1.66e-01)6.23e-01(4.66e-02)1.29e-01(1.86e-03)+1.17e-01(2.19e-02)1.18e-01(1.11e-02)+1.27e-01(1.04e-03)1.09e-01(4.66e-02)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD6	2.47e+01(1.83e+00)	2.83e+01(1.82e+00)+	2.67e+01(1.28e+00)	2.98e+01(1.03e+00)+	3.08e+01(8.79e-01)	3.12e+01(5.63e-01)=
1.93e+01(2.52e+00)2.60e+01(8.95e-01)+2.50e+01(6.55e-01)2.76e+01(2.78e-01)+2.82e+01(3.08e-01)2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)4.93e-03(1.36e-02)1.09e-01(3.94e-02)+2.70e-02(4.19e-02)1.09e-01(4.31e-02)+5.89e-02(5.15e-02)6.23e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(8.54e-04)0.00e+00(0.00e+00)0.00e+00(0.00e+00)=1.02e-03(5.60e-03)0.00e+00(0.00e+00)0.00e+00(0.00e+00)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=6.23e-01(1.69e-01)1.28e-01(6.25e-04)1.30e-01(1.27e-04)+1.26e-01(7.35e-04)1.25e-01(1.26e-03)-1.29e-01(6.99e-04)1.09e-01(4.66e-02)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD7	2.87e+01(1.44e+00)	3.25e+01(3.74e-01)+	3.22e+01(5.55e-01)	3.41e+01(2.05e-01)+	3.40e+01(2.16e-01)	3.44e+01(2.60e-01)+
2.85e+01(1.72e+00)2.97e+01(1.87e+00)+3.07e+01(1.21e+00)3.14e+01(1.74e+00)+3.19e+01(7.18e-01)4.93e-03(1.36e-02)1.09e-01(3.94e-02)+2.70e-02(4.19e-02)1.09e-01(4.31e-02)+5.89e-02(5.15e-02)6.23e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(8.54e-04)0.00e+00(0.00e+00)0.00e+00(0.00e+00)1.02e-03(5.60e-03)0.00e+00(0.00e+00)0.00e+00(0.00e+00)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=6.23e-01(1.66e-01)1.28e-01(6.25e-04)1.30e-01(1.86e-03)+1.17e-01(2.19e-02)1.18e-01(1.11e-02)+1.29e-01(1.04e-03)1.09e-01(4.66e-02)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD8	1.93e+01(2.52e+00)	2.60e+01(8.95e-01)+	2.50e+01(6.55e-01)	2.76e+01(2.78e-01)+	2.82e+01(3.08e-01)	2.83e+01(3.76e-01)=
4.93e-03(1.36e-02)1.09e-01(3.94e-02)+2.70e-02(4.19e-02)1.09e-01(4.31e-02)+5.89e-02(5.15e-02)6.23e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)+7.21e-01(2.34e-03)+7.39e-01(8.54e-04)0.00e+00(0.00e+00)0.00e+00(0.00e+00)=1.02e-03(5.60e-03)0.00e+00(0.00e+00)0.00e+00(0.00e+00)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=6.23e-01(1.6e-01)1.28e-01(6.25e-04)1.30e-01(1.27e-04)+1.26e-01(7.35e-04)1.25e-01(1.26e-03)-1.29e-01(6.99e-04)1.09e-01(4.66e-02)1.29e-01(1.86e-03)+1.17e-01(2.19e-02)1.18e-01(1.11e-02)+1.43e+00(5.21e-02)3.94e-01(2.29e-01)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABD9	2.85e+01(1.72e+00)	2.97e+01(1.87e+00)+	3.07e+01(1.21e+00)	3.14e+01(1.74e+00)+	3.19e+01(7.18e-01)	3.26e+01(3.73e-01)+
6.23e-01(2.53e-02)7.06e-01(1.98e-03)+7.14e-01(2.33e-03)7.21e-01(2.34e-03)+7.39e-01(8.54e-04)0.00e+00(0.00e+00)0.00e+00(0.00e+00)1.02e-03(5.60e-03)0.00e+00(0.00e+00)0.00e+00(0.00e+00)5.26e-01(1.33e-01)5.34e-01(1.69e-01)=4.76e-01(1.95e-01)4.57e-01(2.20e-01)=6.23e-01(1.66e-01)1.28e-01(6.25e-04)1.30e-01(1.27e-04)+1.26e-01(7.35e-04)1.25e-01(1.26e-03)-1.29e-01(6.99e-04)1.09e-01(4.66e-02)1.29e-01(1.86e-03)+1.17e-01(2.19e-02)1.18e-01(1.11e-02)+1.43e+00(5.21e-02)3.94e-01(2.29e-01)1.38e+00(3.38e-02)+9.96e-02(1.76e-01)1.57e+00(3.60e-02)+1.43e+00(5.21e-02)	ABE1	4.93e-03(1.36e-02)	1.09e-01(3.94e-02)+	2.70e-02(4.19e-02)	1.09e-01(4.31e-02)+	5.89e-02(5.15e-02)	8.66e-02(5.55e-02)+
0.00e+00(0.00e+00) 1.02e-03(5.60e-03) 0.00e+00(0.00e+00)=	ABE2	6.23e-01(2.53e-02)	7.06e-01(1.98e-03)+	7.14e-01(2.33e-03)	7.21e-01(2.34e-03)+	7.39e-01(8.54e-04)	7.42e-01(4.94e-04)+
5.26e-01(1.33e-01) 5.34e-01(1.69e-01)= 4.76e-01(1.95e-01) 4.57e-01(2.20e-01)= 6.23e-01(1.66e-01) 1.28e-01(6.25e-04) 1.30e-01(1.27e-04)+ 1.26e-01(7.35e-04) 1.25e-01(1.26e-03)- 1.29e-01(6.99e-04) 1.09e-01(4.66e-02) 1.29e-01(1.86e-03)+ 1.17e-01(2.19e-02) 1.18e-01(1.11e-02)+ 1.27e-01(1.04e-03) 3.94e-01(2.29e-01) 1.38e+00(3.38e-02)+ 9.96e-02(1.76e-01) 1.57e+00(3.60e-02)+ 1.43e+00(5.21e-02)	ABE3	0.00e+00(0.00e+00)	0.00e+00(0.00e+00)=	1.02e-03(5.60e-03)	0.00e+00(0.00e+00)=	0.00e+00(0.00e+00)	1.18e-02(6.46e-02)=
1.28e-01(6.25e-04) 1.30e-01(1.27e-04)+ 1.26e-01(7.35e-04) 1.25e-01(1.26e-03)- 1.29e-01(6.99e-04) 1.09e-01(4.66e-02) 1.29e-01(1.86e-03)+ 1.17e-01(2.19e-02) 1.18e-01(1.11e-02)+ 1.27e-01(1.04e-03) 3.94e-01(2.29e-01) 1.38e+00(3.38e-02)+ 9.96e-02(1.76e-01) 1.57e+00(3.60e-02)+ 1.43e+00(5.21e-02)	ABE4	5.26e-01(1.33e-01)	5.34e-01(1.69e-01)=	4.76e-01(1.95e-01)	4.57e-01(2.20e-01)=	6.23e-01(1.66e-01)	6.34e-01(1.42e-01)=
1.09e-01(4.66e-02) 1.29e-01(1.86e-03)+ 1.17e-01(2.19e-02) 1.18e-01(1.11e-02)+ 1.27e-01(1.04e-03) 3.94e-01(2.29e-01) 1.38e+00(3.38e-02)+ 9.96e-02(1.76e-01) 1.57e+00(3.60e-02)+ 1.43e+00(5.21e-02) 16/0/4 16/1/3 16/1/3 16/1/3 16/1/3	ABE5	1.28e-01(6.25e-04)	1.30e-01(1.27e-04)+	1.26e-01(7.35e-04)	1.25e-01(1.26e-03)-	1.29e-01(6.99e-04)	1.28e-01(1.81e-03)=
3.94e-01(2.29e-01) 1.38e+00(3.38e-02)+ 9.96e-02(1.76e-01) 1.57e+00(3.60e-02)+ 1.43e+00(5.21e-02)	ABE6	1.09e-01(4.66e-02)	1.29e-01(1.86e-03)+	1.17e-01(2.19e-02)	1.18e-01(1.11e-02)+	1.27e-01(1.04e-03)	1.23e-01(1.14e-03)-
16/0/4 16/1/3	ABE7	3.94e-01(2.29e-01)	1.38e+00(3.38e-02)+	9.96e-02(1.76e-01)	1.57e+00(3.60e-02)+	1.43e+00(5.21e-02)	1.57e+00(1.15e-02)+
	=/-/+		16/0/4		16/1/3		14/1/5

如果一个表太长,则可能需要跨页表格,如表1.6所示。

表 1.6 这是一个长表 Table 1.6 This is a very long table

Name1	Name2	Name3	Name4	Name5
AAA	A1	180.0	281.0	235.3
	A2	5.3	43.5	35.1
	A3	680.3	1020.0	759.3
	A4	14.4	15.8	15.4
	A5	347.7	365.0	355.9
	A6	363.4	384.1	372.6
	A7	373.5	393.7	384.2
	A8	384.9	400.0	394.4
	A9	379.9	400.0	390.2
	A10	379.5	399.7	390.2
	A11	382.1	399.9	393.2
BBB	B1	895.8	918.8	907.2
	B2	0.5	1.1	0.9
	В3	715.6	2655.0	1360.1
	B4	318.2	424.8	378.2
	B5	183.0	242.0	215.0
	B6	291.0	376.0	331.8
	B7	373.0	452.0	429.6
	B8	469.0	520.0	501.1
	B9	521.0	565.0	549.5
CCC	C1	912.7	947.5	929.2
	C2	0.2	0.8	0.3
	C3	143.0	229.0	184.7
	C4	202.0	263.0	221.6
	C5	243.0	304.0	269.9
	C6	281.0	365.0	329.9
	C7	293.0	379.0	342.3
DDD	D1	369.0	397.7	382.9
	D2	384.6	406.7	394.6
	D3	385.1	407.8	397.6
	D4	388.3	405.1	398.7
	D5	385.6	407.9	397.2
	D6	387.4	414.5	401.6
	D7	388.9	418.1	403.3
	D8	3.6	7.2	5.3

			((接上表)
Name1	Name2	Name3	Name4	Name5
	D9	2.3	5.2	3.6
	D10	11.8	23.9	17.6
	D11	9.7	21.3	14.6
	D12	34.4	42.6	39.2
	D13	7.8	32.5	19.6

1.4 算法

下面是一个算法示例。

算法 1.1 算法示例

Algorithm 1.1 Algorithm demo

```
Input: p_1: 参数 1
   p<sub>1</sub>:参数 2
   p<sub>1</sub>: 参数 3
Output: o1: 输出 1
   02: 输出2
                                                                       ▷第一条命令的注释
 1: 第一条命令
 2: while True do
      /**** 下面代码块的注释 *****/
 3:
      相关命令
                                                                                    ▷注释
 4:
      if a = b then
                                                                                ▷ If 的注释
 5:
         执行相关命令
                                                                                    ▷注释
      end if
 7:
      if c = d then
 8:
 9:
          命令
                                                                                    ▷注释
      else
10:
          命令
                                                                                    ▷注释
11:
12:
      end if
13: end while
14: repeat
      j = j + 1
                                                                                    ▷注释
16: until j > 10
17: for i = 1 to 10 do
      i = i + 1
18:
19: end for
20: return o_1, o_2
```

1.5 公式

略。更多公式排版见参考文献[3]。

1.6 参考文献

参考文献样式分别上标(如参考文献[2,3])和非上标(如参考文献[2,3],参考文献[2]和[3])等样式。

1.7 其他

更多信息请参考文献 [2]。

关于 LaTeX 的更多知识参考文献 [1]。

第2章 待补充的内容

由于时间有限,目前只在本模板中给出了影响论文排版美观程度的图、表、算法等示例。后面可加入基于该模板的详细示例,比如基于该模板的华东理工大学百度百科介绍(包括大段文字、图、表、引用等),给读者呈现更直观的效果。

欢迎各位同学贡献想法、示例和批评指正。

参考文献

- [1] Oetiker T, Partl H, Hyna I, 等. 一份 (不太) 简短的 LaTeXe 介绍[M]. Chinese TeX Society, 2019.
- [2] BIT. 北京理工大学硕士(博士)学位论文 LaTeX 模板[EB/OL]. 2021. https://github.com/BIT-thesis/LaTeX-template.
- [3] 在线 LaTeX 公式编辑器[EB/OL]. 2021. https://www.latexlive.com/.

致谢

华东理工大学薛梦奇基于 BIT-Thesis 模板^[2] 做了一定修改,使其适用于华东理工大学的博士学位论文格式。本文在其基础上进一步修改了部分内容(见第1章第一段说明)。对制作 BIT-Thesis 模板的各位老师、同学和薛梦奇师兄表示衷心的感谢。

攻读博士期间的主要学术成果及参与的科研项目

学术论文:

- 1. 学术论文 1
- 2. 学术论文 2

发明专利:

1. 发明专利1

软件著作:

1. 软件著作1

科研项目:

- 1. 项目 1
- 2. 项目 2