4.9 符号表

有几个注意事项:

- 1. 蓝色的命令依赖 amsmath 宏包 (非 amssymb 宏包);
- 2. 带有角标 $^\ell$ 的符号命令依赖 latexsym 宏包。

4.9.1 I₄TEX 普通符号

表 4.4: 文本/数学模式通用符号

这些符号可用于文本和数学模式。

{	\{	}	\}	\$	\\$	%	\%
†	\dag	§	\S	©	\copyright		\dots
‡	\ddag	\P	\P	£	\pounds		

表 4.5: 希腊字母

\Alpha, \Beta 等希腊字母符号不存在,因为它们和拉丁字母 A,B 等一模一样;小写字母里也不存在 \omicron,直接用拉丁字母 o 代替。

α	\alpha	θ	\theta	0	0	v	\upsilon
β	\beta	ϑ	\vartheta	π	\pi	ϕ	\phi
γ	\gamma	ι	\iota	ϖ	\varpi	φ	\varphi
δ	\delta	κ	\kappa	ρ	\rho	χ	\chi
ϵ	\epsilon	λ	\lambda	ρ	\varrho	ψ	\psi
ε	\varepsilon	μ	\mu	σ	\sigma	ω	\omega
ζ	\zeta	ν	\nu	ς	\varsigma		
η	\eta	ξ	\xi	au	\tau		
Γ	\Gamma	Λ	\Lambda	Σ	\Sigma	Ψ	\Psi
Δ	\Delta	Ξ	\Xi	Υ	\Upsilon	Ω	\Omega
Θ	\Theta	П	\Pi	Φ	\Phi		
Γ	\varGamma	Λ	\varLambda	Σ	\varSigma	Ψ	\varPsi
Δ	\varDelta	Ξ	\varXi	Υ	\varUpsilon	Ω	\varOmega
Θ	\varTheta	П	\varPi	Φ	\varPhi		

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表 4.6: 二元关系符

所有的二元关系符都可以加 \not 前缀得到相反意义的关系符,例如 \not= 就得到不等号(同 \ne)。

<	<	>	>	=	=
\leq	$\leq or \leq o$	\geq	\geq or \ge	≡	\equiv
«	\11	>>	\gg	÷	\doteq
\prec	\prec	\succ	\succ	\sim	\sim
\preceq	\preceq	\succeq	\succeq	\simeq	\simeq
\subset	\subset	\supset	\supset	\approx	\approx
\subseteq	\subseteq	\supseteq	\supseteq	\cong	\cong
	\sqsubset^ℓ	\supset	\sqrupset^ℓ	\bowtie	\Join^ℓ
⊑	\sqsubseteq	⊒	\sqsupseteq	\bowtie	\bowtie
\in	\in	∋	\ni, \owns	\propto	\propto
\vdash	\vdash	\dashv	\dashv	=	\models
	\mid		\parallel	\perp	\perp
\smile	\smile	$\overline{}$	\frown	\asymp	$\agnumber \agnumber \agn$
:	:	∉	\notin	\neq	\neq or \ne

表 4.7: 二元运算符

+	+	_	-		
\pm	\pm	Ŧ	\mp	⊲	\triangleleft
	\cdot	÷	\div	\triangleright	\triangleright
×	\times	\	\setminus	*	\star
\cup	\cup	\cap	\cap	*	\ast
\sqcup	\sqcup	П	\sqcap	0	\circ
\vee	\vee, \lor	\wedge	\wedge,λ	•	\bullet
\oplus	\oplus	\ominus	\ominus	\Diamond	\diamond
\odot	\odot	\oslash	\oslash	\forall	\uplus
\otimes	\otimes	\circ	\bigcirc	П	\amalg
\triangle	\bigtriangleup	∇	\bigtriangledown	†	\dagger
\triangleleft	$\backslash \mathtt{lhd}^\ell$	\triangleright	$ackslash ext{rhd}^\ell$	‡	\ddagger
⊴	\n	⊵	$ackslash$ unrhd $^\ell$	≀	\wr

表 4.8: 巨算符

\sum	\sum	\sum	U	U	\bigcup	V	V	\bigvee
\prod	$\overline{\prod}$	\prod	\cap	\bigcap	\bigcap	\wedge	\wedge	\bigwedge
\coprod	\coprod	\coprod	\sqcup		\bigsqcup	 	\forall	\biguplus
\int	\int	\int	∮	\oint	\oint	\odot	\odot	\bigodot
\oplus	\bigoplus	\bigoplus	\otimes	\otimes	\bigotimes			
\iint	\iint	\iint	\iiint	\iiint	\iiint	\iiint		\iiiint
$\int \cdots \int$	$\int \cdots \int$	\idotsint						

表 4.9: 数学重音符号

最后一个 \wideparen 依赖 yhmath 宏包。

\hat{a}	\hat{a}	ă	\check{a}	\tilde{a}	\tilde{a}
$cute{a}$	\acute{a}	à	\grave{a}	$reve{a}$	\breve{a}
\bar{a}	\bar{a}	\vec{a}	\vec{a}	\mathring{a}	\mathbf{a}
\dot{a}	\dot{a}	\ddot{a}	\ddot{a}	\ddot{a}	\dddot{a}
\ddot{a}	\ddddot{a}				
\widehat{AAA}	\widehat{AAA}	\widetilde{AAA}	\widetilde{AAA}	\widehat{AAA}	\wideparen{AAA}

表 4.10: 箭头

\leftarrow	\leftarrow or \gets	\leftarrow	\longleftarrow
\rightarrow	\rightarrow or \to	\longrightarrow	\longrightarrow
\leftrightarrow	\leftrightarrow	\longleftrightarrow	\longleftrightarrow
\Leftarrow	\Leftarrow	\leftarrow	\Longleftarrow
\Rightarrow	\Rightarrow	\Longrightarrow	\Longrightarrow
\Leftrightarrow	\Leftrightarrow	\iff	\Longleftrightarrow
\mapsto	\mapsto	\longmapsto	\longmapsto
\leftarrow	\hookleftarrow	\hookrightarrow	\hookrightarrow
_	\leftharpoonup	\rightarrow	\rightharpoonup
$\overline{}$	\leftharpoondown	\rightarrow	\rightharpoondown
\rightleftharpoons	\rightleftharpoons	\iff	\iff
\uparrow	\uparrow	\downarrow	\downarrow
\updownarrow	\updownarrow	\uparrow	\Uparrow
\Downarrow	\Downarrow	\$	\Updownarrow
7	\nearrow	\searrow	\searrow
✓	\swarrow	_	\nwarrow
$\stackrel{\sim}{-}$	$\backslash ext{leadsto}^\ell$		

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表 4.11: 作为重音的箭头符号

\overrightarrow{AB}	\overrightarrow{AB}	\xrightarrow{AB}	\underrightarrow{AB}
\overleftarrow{AB}	\overleftarrow{AB}	AB	\underleftarrow{AB}
\overrightarrow{AB}	\overleftrightarrow{AB}	ĄВ	\underleftrightarrow{AB}

表 4.12: 定界符

amsmath 还定义了 \lvert、\rvert 和 \lVert、\rVert, 分别作为 \vert 和 \Vert 对应的开符号 (左侧) 和闭符号 (右侧) 的命令。

(())	\uparrow	\uparrow	\downarrow	\downarrow
[[or \lbrack]] or \rbrack	\uparrow	\Uparrow	\Downarrow	\Downarrow
{	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	}	\} or \rbrace	\$	\updownarrow	\$	\Updownarrow
	or \vert		\ or \Vert	Γ	\lceil	7	\rceil
<	\langle	\rangle	\rangle	L	\lfloor		\rfloor
/_	/	\	\backslash				

表 4.13: 用于行间公式的大定界符

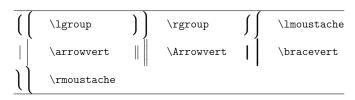


表 4.14: 其他符号

	\dots		\cdots	:	\vdots	٠	\ddots
\hbar	\hbar	\imath	\imath	J	\jmath	ℓ	\ell
\Re	\Re	\Im	\Im	×	\aleph	Ø	\wp
\forall	\forall	∃	\exists	Ω	$\mbox{\em mho}^{\ell}$	∂	\partial
,	1	,	\prime	Ø	\emptyset	∞	\infty
∇	\nabla	\triangle	\triangle		$\backslash \mathtt{Box}^\ell$	\Diamond	$\operatorname{acktriangle}$
\perp	\bot	Т	\top	_	\angle		\surd
\Diamond	\diamondsuit	\Diamond	\heartsuit	*	\clubsuit	•	\spadesuit
\neg	\neg or \lnot	þ	\flat	Ц	\natural	#	\sharp

4.9.2 *AMS* 符号

本小节所有符号依赖 amssymb 宏包。

表 4.15: AMS 希腊字母和希伯来字母

\digamma \digamma \varkappa \varkappa	コ	\beth	٦	\gimel	٦	\daleth
---	---	-------	---	--------	---	---------

表 4.16: *AMS* 二元关系符

<	\lessdot	≽	\gtrdot	÷	\doteqdot
\leq	\leqslant	≥	$\gen{array}{l} geqslant$	≓	\risingdotseq
<	\eqslantless	≽	\eqslantgtr	Έ.	\fallingdotseq
\leq	\leqq	\geqq	\geqq	<u> </u>	\eqcirc
///	\lll or \llless	>>>	\ggg	<u>•</u>	\circeq
\lesssim	\lesssim	\gtrsim	\gtrsim	\triangleq	\triangleq
≲	\lessapprox	\gtrapprox	\gtrapprox	^	\bumpeq
≶	\lessgtr	\geq	\gtrless	≎	\Bumpeq
\leq	\lesseqgtr	\geq	\gtreqless	~	\thicksim
\leq	\lesseqqgtr	\geq	\gtreqqless	\approx	\thickapprox
\preccurlyeq	\preccurlyeq	≽	\succcurlyeq	\approx	\approxeq
\curlyeqprec	\curlyeqprec	\succcurlyeq	\curlyeqsucc	~	\backsim
$\stackrel{\sim}{\sim}$	\precsim	\succeq	\succsim	\leq	\backsimeq
∀ ≋	\precapprox	XX	\succapprox	F	\vDash
\subseteq	\subseteqq	\supseteq	\supseteqq	⊩	\Vdash
П	\shortparallel	∋	\Supset	$\parallel \vdash$	\Vvdash
•	\blacktriangleleft	\supset	\sqsupset	€	\backepsilon
\triangleright	\vartriangleright	.:	\because	\propto	\varpropto
•	\blacktriangleright	€	\Subset	Ŏ	\between
⊵	\trianglerighteq	$\overline{}$	\smallfrown	ф	\pitchfork
\triangleleft	\vartriangleleft	ı	\shortmid	\cup	\smallsmile
⊴	\trianglelefteq	<i>:</i> .	\therefore		\sqsubset

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表 4.17: *AMS* 二元运算符

÷	\dotplus		\centerdot		
\bowtie	\ltimes	×	\rtimes	*	\divideontimes
U	\doublecup	$ \ \ \bigcap$	\doublecap	\	\smallsetminus
$\underline{\vee}$	\veebar	$\overline{\wedge}$	\barwedge	$\bar{\wedge}$	\doublebarwedge
\blacksquare	\boxplus	\Box	\boxminus	\ominus	\circleddash
\boxtimes	\boxtimes	⊡	\boxdot	0	\circledcirc
Т	\intercal	*	\circledast	/	\rightthreetimes
Υ	\curlyvee	人	\curlywedge	\rightarrow	\leftthreetimes

表 4.18: *AMS* 箭头

←	\dashleftarrow		\dashrightarrow
otin	\leftleftarrows	\Rightarrow	\rightrightarrows
\leftrightarrows	\leftrightarrows	ightleftarrows	\rightleftarrows
\Leftarrow	\Lleftarrow	\Rightarrow	\Rrightarrow
~~	\twoheadleftarrow	→	\twoheadrightarrow
\leftarrow	\leftarrowtail	\longrightarrow	\rightarrowtail
\leftrightharpoons	\leftrightharpoons	\rightleftharpoons	\rightleftharpoons
Í	\Lsh	Ļ	\Rsh
\leftarrow P	\looparrowleft	\rightarrow	\looparrowright
$ \leftarrow $	\curvearrowleft	\Diamond	\curvearrowright
Q	\circlearrowleft	\circlearrowright	\circlearrowright
_0	$\mbox{\mbox{\tt multimap}}$	$\uparrow\uparrow$	\upuparrows
$\downarrow\downarrow$	\downdownarrows	1	\upharpoonleft
1	\upharpoonright	ļ	\downharpoonright
~→	\rightsquigarrow	~~	\leftrightsquigarrow

表 4.19: AMS 反义二元关系符和箭头

≮	\nless	*	\ngtr	≨	\varsubsetneqq
≤	\lneq	\geq	\gneq	\supseteq	\varsupsetneqq
≰	\nleq	≱	\ngeq	$\not\sqsubseteq$	\nsubseteqq
≰	\nleqslant	$\not \geq$	\ngeqslant	⊉	\nsupseteqq
≨	\lneqq	\trianglerighteq	\gneqq	†	\nmid
≨	\lvertneqq	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	\gvertneqq	#	\nparallel
≰	\nleqq	≱	\ngeqq	ł	\nshortmid
⋦	\label{lnsim}	⋧	\gnsim	Ħ	\nshortparallel
≨	\lnapprox	⋧	\gnapprox	~	\nsim
\neq	\nprec	\neq	\nsucc	\ncong	\ncong
\npreceq	\npreceq	$\not\succeq$	\nsucceq	\nvdash	\nvdash
$\not\equiv$	\precneqq	≽	\succneqq	¥	\nvDash
$\not\gtrsim$	\precnsim	$\succsim_{\!$	\succnsim	\mathbb{H}	\nVdash
≈	\precnapprox	 ≵	\succnapprox	¥	\nVDash
Ç	\subsetneq	\supseteq	\supsetneq		\ntriangleleft
⊊	\varsubsetneq	\supseteq	\varsupsetneq	$\not\trianglerighteq$	\ntriangleright
⊈	\nsubseteq	⊉	\nsupseteq	⊉	\ntrianglelefteq
\subsetneq	\subsetneqq	\supseteq	\supsetneqq	⊭	\ntrianglerighteq
\leftarrow	\nleftarrow	$\rightarrow \rightarrow$	\nrightarrow	$\leftrightarrow \rightarrow$	\nleftrightarrow
#	\nLeftarrow	\Rightarrow	\nRightarrow	#	\n

表 4.20: *AMS* 定界符

Γ	\ulcorner	٦	\urcorner	L	\llcorner	_	\lrcorner
---	-----------	---	-----------	---	-----------	---	-----------

表 4.21: *AMS* 其它符号

\hbar	\hbar	\hbar	\hslash	k	\Bbbk
	\square		\blacksquare	(S)	\circledS
Δ	\vartriangle	A	\blacktriangle	C	\complement
∇	\triangledown	•	\blacktriangledown	G	\Game
\Diamond	\lozenge	♦	\blacklozenge	*	\bigstar
_	\angle	4	\measuredangle		
/	\diagup	\	\diagdown	١	\backprime
∄	\nexists	Ь	\Finv	Ø	\varnothing
9	\eth	∢	\sphericalangle	Ω	\mho