T	ABLE 1	
Additional	AASTEX	SYMBOLS

\lesssim	$\verb \lesssim , \verb \la $	\gtrsim	\gtrsim, \ga
$\mu\mathrm{m}$	\micron	_	\sbond
_	\dbond	=	\tbond
\odot	\sun	\oplus	\earth
\bigcirc	\diameter		
0	\arcdeg, \degr		\sq
′	\arcmin	″	\arcsec
\dot{d}	\fd	h ·	\fh
$_{\boldsymbol{\cdot}}^{\mathbf{m}}$	\fm	s ·	\fs
•	\fdg	<i>'</i>	\farcm
"	\farcs	.	\fp
$\frac{1}{2}$	\onehalf	UBVR	\ubvr
$\frac{1}{3}$	\onethird	$U\!-\!B$	\ub
$\frac{2}{3}$	\twothirds	$B\!-\!V$	\bv
$\frac{1}{4}$	\onequarter	V - R	\vr
1 2 1 3 2 3 1 4 3 4	\threequarters	$U\!-\!R$	\ur

TABLE 2 TEXT-MODE ACCENTS

		@		c		
ò	\'{o}	ō	\={o}		о̂о	oo]
ó	\'{o}	ò	\.{o}		Q	\c{o}
ô	\^{o}	ŏ	\u{o}		ò	\d{o}
ö	\"{o}	ŏ	\v{o}		Ō	\b{o}
õ	\~{o}	ő	\H{o}			

TABLE 3 NATIONAL SYMBOLS

		œ	\oe	ă	\aa	ł	\1
@	c	Œ	\0E	Å	\AA	Ł	\L
3	C	æ	\ae	ø	\0	ß	\ss
		Æ	\AE	Ø	\0		

$\begin{array}{c} \text{TABLE 4} \\ \text{Math-mode accents} \end{array}$

\hat{a}	\hat{a}	\dot{a}	$\det\{a\}$
\check{a}	\check{a}	\ddot{a}	\dot{a}
\tilde{a}	\tilde{a}	$reve{a}$	\breve{a}
\acute{a}	\acute{a}	\bar{a}	\bar{a}
à	\grave{a}	$ec{a}$	\sqrt{a}

$\begin{array}{c} \text{TABLE 5} \\ \text{Greek and Hebrew letters (Math Mode)} \end{array}$

α	\alpha	ν	\nu
β	\beta	ξ	\xi
γ	\gamma	o	0
δ	\delta	π	\pi
ϵ	\epsilon	ρ	\rho
ζ	\zeta	σ	\sigma
η	\eta	au	\tau
θ	\theta	v	\upsilon
ι	\iota	ϕ	\phi
κ	\kappa	χ	\chi
λ	\lambda	ψ	\psi
μ	\mu	ω	\omega
F	\digamma	\varkappa	\varkappa
ε	$\vert varepsilon$	ς	\varsigma
ϑ	\vartheta	φ	\varphi
ϱ	\varrho		
Γ	\Gamma	Σ	\Sigma
Δ	\Delta	Υ	Υ
Θ	\Theta	Φ	\Phi
Λ	\Lambda	Ψ	\Psi
Ξ	\Xi	Ω	\Omega
П	\Pi		
×	\aleph	コ	\beth
I	\gimel	٦	\d

TABLE 6 BINARY OPERATORS (MATH MODE)

\pm	\pm	\cap	\cap
Ŧ	\mp	\cup	\cup
\	\setminus	\forall	\uplus
	\cdot	П	\sqcap
×	\times	\sqcup	\sqcup
*	\ast	⊲	\triangleleft
*	\star	\triangleright	$\$ triangleright
\Diamond	\diamond	}	\wr
0	\circ	\circ	\bigcirc
•	\bullet	\triangle	\bigtriangleup
÷	\div	∇	\bigtriangledown
\triangleleft	\lhd	\triangleright	\rhd
\vee	\vee	\odot	\odot
\wedge	\wedge	†	\dagger
\oplus	\oplus	‡	\ddagger
\ominus	\ominus	П	\amalg
\otimes	\otimes	⊴	\unlhd
0	\oslash	\triangleright	\unrhd

TABLE 7
AMS BINARY OPERATORS (MATH MODE)

$\dot{+}$	\dotplus	\bowtie	\ltimes
\	\smallsetminus	\rtimes	\rtimes
$ \ \ \bigcap$	\Cap, \doublecap	\rightarrow	\leftthreetimes
U	\Cup, \doublecup	\angle	\rightthreetimes
$\overline{\wedge}$	\barwedge	人	\curlywedge
$\underline{\vee}$	\veebar	Υ	\curlyvee
_	\doublebarwedge		
\Box	\boxminus	Θ	\circleddash
\boxtimes	\boxtimes	*	\circledast
\Box	\boxdot	0	\circledcirc
\blacksquare	\boxplus		\centerdot
*	\divideontimes	Т	\intercal

TABLE 8 MISCELLANEOUS SYMBOLS

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

TABLE 9
MISCELLANEOUS SYMBOLS (MATH MODE)

×	\aleph	1	\prime
\hbar	\hbar	Ø	\emptyset
\imath	\imath	∇	\nabla
J	\jmath	\checkmark	\surd
ℓ	\ell	T	\top
60	\wp	\perp	\bot
\Re	\Re		\I
\Im	\Im	_	\angle
∂	\partial	\triangle	\triangle
∞	\infty	\	\backslash
	\Box	\Diamond	\Diamond
\forall	\forall	#	\sharp
∃	\exists	*	\clubsuit
\neg	\neg	\Diamond	\diamondsuit
b	\flat	\Diamond	\heartsuit
þ	\natural	•	\spadesuit

υ \mho

TABLE 10 AMS MISCELLANEOUS SYMBOLS (MATH MODE)

\hbar	\hbar	١	\backprime
\hbar	\hslash	Ø	\varnothing
Δ	\vartriangle	A	$\blue{blacktriangle}$
∇	\triangledown	•	\blacktriangledow
	\square		\blacksquare
\Diamond	\lozenge	♦	\blacklozenge
\odot	\circledS	*	\bigstar
_	\angle	⋖	\sphericalangle
4	\measuredangle		
∄	\nexists	C	\complement
Ω	\mho	ð	\eth
F	\Finv	/	\diagup
G	\Game		\diagdown
k	\Bbbk	1	\restriction

TABLE 11 ARROWS (MATH MODE)

$\leftarrow \texttt{\leftarrow}$	\longleftarrow	\longleftarrow
$\Leftarrow \setminus \texttt{Leftarrow}$	⇐	\Longleftarrow
$ ightarrow$ \rightarrow	\longrightarrow	\longrightarrow
$\Rightarrow \setminus \texttt{Rightarrow}$	\Longrightarrow	\Longrightarrow
$\leftrightarrow \texttt{\leftrightarrow}$	\longleftrightarrow	\longleftrightarrow
$\Leftrightarrow \verb \Leftrightarrow $	\iff	\Longleftrightarrow
$\mapsto \texttt{\mbox{\tt mapsto}}$	\longmapsto	\longmapsto
$\leftarrow \verb \hookleftarrow $	\hookrightarrow	\hookrightarrow
$\leftarrow \$ \leftharpoonup	\rightarrow	\rightharpoonup
$\leftarrow \texttt{\leftharpoondown}$	\rightarrow	\rightharpoondown
$ \Rightarrow \texttt{\ } \texttt{rightleftharpoons}$	\sim	\leadsto
↑ \uparrow	1	\Updownarrow
↑ \Uparrow	7	\nearrow
↓ \downarrow	\searrow	\searrow
↓ \Downarrow	/	\swarrow
↑ \updownarrow	_	\nwarrow

TABLE 12 AMS ARROWS (MATH MODE)

←-- \dashleftarrow --→ \dashrightarrow ⇒ \rightrightarrows ≒ \leftrightarrows \rightleftarrows \rightleftarrows ⟨ \Lleftarrow ⇒ \Rrightarrow \twoheadleftarrow \twoheadrightarrow \twoheadrightarrow \rightarrow \rightarrowtail ← \looparrowleft \hookrightarrow \looparrowright \rightleftharpoons \rightleftharpoons ☼ \circlearrowright \Lsh \Rsh ↓ \downdownarrows ↑ \upuparrows \upharpoonleft \upharpoonright \downharpoonleft \downharpoonright → \multimap \leadsto \rightsquigarrow \leftrightsquigarrow ← \nleftarrow → \nrightarrow ⇒ \nRightarrow ⟨→ \nleftrightarrow ⇔ \nLeftrightarrow

TABLE 13 RELATIONS (MATH MODE)

 \leq \leq \geq \geq \prec \succ \succeq \preceq **«** \11 \gg \gg \subset \supset \subset \supset \subseteq \supseteq \subseteq \supseteq \Box \sqsubset \sqsupset \sqsubseteq \sqsubseteq \supseteq \sqsupseteq \in \ni \in \ni \vdash \dashv \smile \mid \frown \parallel \neq \perp \equiv \equiv \cong \bowtie \sim \bowtie \simeq \simeq \propto \propto \asymp \asymp = \models \approx \doteq \Join

$\begin{array}{c} \text{TABLE 14} \\ \text{AMS binary relations (math mode)} \end{array}$

≤ \leqq \geq \geqq $\gen{ \end{ }} \gen{ \end{ }} \gen$ < \eqslantless \eqslantgtr \lesssim \lesssim \gtrsim \lessapprox \gtrapprox \approx \approxeq \eqsim \lessdot \gtrdot $\ll \111, \11less$ $\ggg \backslash {\tt ggg}, \, \backslash {\tt gggtr}$ $\label{lessgtr}$ \gtrless \lesseqgtr \gtreqless \gtreqqless $\label{lesseqqgtr}$ \doteqdot, \Doteq \eqcirc \circeq \rightarrow \fallingdotseq \triangleq \backsim \thicksim \backsimeq \thickapprox \subseteqq \supseteqq ⊚ \Subset \Supset \preccurlyeq \succcurlyeq \curlyeqprec \curlyeqsucc \precsim \slash succsim $\stackrel{\textstyle \searrow}{\approx}$ \precapprox \succapprox $\verb|\vartriangleleft|$ \triangleright $\verb|\vartriangleright|$ \trianglerighteq \trianglelefteq \vDash \Vdash

∥- \Vvdash

◆ \blacktriangleleft
► \blacktriangleright

 \therefore \therefore \because \because

TABLE 15 AMS NEGATED RELATIONS (MATH MODE)

\angle	\nless	\not	\ngtr
≰	\nleq	≱	\ngeq
≰	\nleqslant	≱	\ngeqslant
≰	\nleqq	≱	\ngeqq
≨	\lneq	\geq	\gneq
≨	\lneqq	≩	\gneqq
\leq	\lvertneqq	\geq	\gvertneqq
⋦	\lnsim	\gtrsim	\gnsim
≨	\lnapprox	⋧	\gnapprox
$ \neq$	\nprec	\neq	\nsucc
** ** ** ** ** ** ** ** ** ** ** ** **	\npreceq	$\not\succeq$	\nsucceq
≆	\precneqq	≽	\succneqq
$\stackrel{\scriptstyle \sim}{\scriptstyle \sim}$	\precnsim	\searrow	\succnsim
≨	\precnapprox	≿≋	\succnapprox
~	\nsim	\ncong	\ncong
ł	\nshortmid	Ħ	\nshortparallel
†	\nmid	#	\nparallel
¥	\nvdash	⊭	\nvDash
\mathbb{F}	\nVdash	⊭	\nVDash
	\ntriangleleft	\not	\ntriangleright
⊉	\n	⊭	\n
⊈	\nsubseteq	⊉	\nsupseteq
$\not\sqsubseteq$	\nsubseteqq		\nsupseteqq
Ç	\subsetneq	⊋	\supsetneq
⊊	\varsubsetneq	⊋	\varsupsetneq
$\not \sqsubseteq \not \sqsubseteq$	\subsetneqq	⊋	\supsetneqq
≨	\varsubsetneqq	\supseteq	\varsupsetneqq

TABLE 16 VARIABLE-SIZED SYMBOLS (MATH MODE)

\sum	\sum	\sum	\cap	\bigcap	\bigcap
П	\prod	\prod	U	\bigcup	\bigcup
П	\coprod	\coprod			\bigsqcup
\int	\int	\int	V	\vee	\bigvee
∮	\oint	\oint	\wedge	\land	\bigwedge
\odot	\odot	\bigodot	\otimes	\otimes	\bigotimes
\oplus	\oplus	\bigoplus	+	[+]	\biguplus

TABLE 17 DELIMITERS (MATH MODE)

(())
[[]]
{	\{	}	\}
L	\lfloor		\rfloor
Γ	\lceil]	\rceil
<	\langle	\rangle	\rangle
/	/	\	\backslash
	\vert		\Vert
\uparrow	\uparrow	\uparrow	\Uparrow
\downarrow	\downarrow	\Downarrow	\Downarrow
\$	\updownarrow	\$	\Updownarrow
Γ	\ulcorner	٦	\urcorner
L	\llcorner	_	\lrcorner

TABLE 18 FUNCTION NAMES (MATH MODE)

\arccos	\csc	\ker	\min
\arcsin	\deg	\lg	\Pr
\arctan	\det	\lim	\sec
\arg	\dim	\liminf	\sin
\cos	\exp	$\$ limsup	\sinh
\cosh	\gcd	\ln	\sup
\cot	\hom	\log	\hat{tan}
\coth	\inf	\max	\tanh