Table 1. Additional AAST*EX* symbols

$\lesssim$	\lesssim, \la	$\gtrsim$	\gtrsim, \ga
μm	\micron	—	\sbond
=	\dbond	≡	\tbond
⊙	\sun	⊕	\earth
⌀	\diameter		
°	\arcdeg, \degr	□	\sq
′	\arcmin	″	\arcsec
$\overset{d}{.}$	\fd	$\overset{h}{.}$	\fh
$\overset{m}{.}$	\fm	$\overset{s}{.}$	\fs
$\overset{\circ}{.}$	\fdg	$\overset{\prime}{.}$	\farcm
$\overset{\prime\prime}{.}$	\farcs	$\overset{p}{.}$	\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	Vision Res.	\vr
$\frac{3}{4}$	\threequarters	$U-R$	\ur

Table 2. Text-mode accents

		ò	\`{o}	ō	\={o}	őő	\t{oo}
@	c	ó	\'{o}	ȯ	\.{o}	ǫ	\c{o}
		ô	\^{o}	ǒ	\u{o}	ọ	\d{o}
		ö	\"{o}	ǒ	\v{o}	ọ	\b{o}
		õ	\~{o}	ő	\H{o}		

Table 3. National symbols

		œ	\oe	å	\aa	ł	\l
@	c	Œ	\OE	Å	\AA	Ł	\L
		æ	\ae	ø	\o	ß	\ss
		Æ	\AE	Ø	\O		

Table 4. Math-mode accents

$\hat{a}$	\hat{a}	$\dot{a}$	\dot{a}
$\check{a}$	\check{a}	$\ddot{a}$	\ddot{a}
$\tilde{a}$	\tilde{a}	$\breve{a}$	\breve{a}
$\acute{a}$	\acute{a}	$\bar{a}$	\bar{a}
$\grave{a}$	\grave{a}	$\vec{a}$	\vec{a}

Table 5. Greek and Hebrew letters (math mode)

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

Table 6. Binary operators (math mode)

$\pm$	`\pm`	$\cap$	`\cap`
$\mp$	`\mp`	$\cup$	`\cup`
$\setminus$	`\setminus`	$\uplus$	`\uplus`
$\cdot$	`\cdot`	$\sqcap$	`\sqcap`
$\times$	`\times`	$\sqcup$	`\sqcup`
$\ast$	`\ast`	$\triangleleft$	`\triangleleft`
$\star$	`\star`	$\triangleright$	`\triangleright`
$\diamond$	`\diamond`	$\wr$	`\wr`
$\circ$	`\circ`	$\bigcirc$	`\bigcirc`
$\bullet$	`\bullet`	$\bigtriangleup$	`\bigtriangleup`
$\div$	`\div`	$\bigtriangledown$	`\bigtriangledown`
$\lhd$	`\lhd`	$\rhd$	`\rhd`
$\vee$	`\vee`	$\odot$	`\odot`
$\wedge$	`\wedge`	$\dagger$	`\dagger`
$\oplus$	`\oplus`	$\ddagger$	`\ddagger`
$\ominus$	`\ominus`	$\amalg$	`\amalg`
$\otimes$	`\otimes`	$\unlhd$	`\unlhd`
$\oslash$	`\oslash`	$\unrhd$	`\unrhd`

Table 7. AMS binary operators (math mode)

∔	\dotplus	⋉	\ltimes
╲	\smallsetminus	⋊	\rtimes
⋒	\Cap, \doublecap	⋋	\leftthreetimes
⋓	\Cup, \doublecup	⋌	\rightthreetimes
⊼	\barwedge	⋏	\curlywedge
⊻	\veebar	⋎	\curlyvee
⊼̄	\doublebarwedge		
⊟	\boxminus	⊖	\circleddash
⊠	\boxtimes	⊛	\circledast
⊡	\boxdot	⊚	\circledcirc
⊞	\boxplus	∙	\centerdot
⁎	\divideontimes	⊤	\intercal

Table 8. Miscellaneous symbols

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

Table 9. Miscellaneous symbols (math mode)

ℵ	\aleph	′	\prime
ℏ	\hbar	∅	\emptyset
ı	\imath	∇	\nabla
ȷ	\jmath	√	\surd
ℓ	\ell	⊤	\top
℘	\wp	⊥	\bot
ℜ	\Re	‖	|
ℑ	\Im	∠	\angle
∂	\partial	△	\triangle
∞	\infty	╲	\backslash
□	\Box	◇	\Diamond
∀	\forall	♯	\sharp
∃	\exists	♣	\clubsuit
¬	\neg	♢	\diamondsuit
♭	\flat	♡	\heartsuit
♮	\natural	♠	\spadesuit
℧	\mho		

Table 10. AMS miscellaneous symbols (math mode)

ℏ	\hbar	`	\backprime
ℏ	\hslash	∅	\varnothing
△	\vartriangle	▲	\blacktriangle
▽	\triangledown	▼	\blacktriangledown
□	\square	■	\blacksquare
◇	\lozenge	◆	\blacklozenge
Ⓢ	\circledS	★	\bigstar
∠	\angle	◁	\sphericalangle
∡	\measuredangle		
∄	\nexists	∁	\complement
℧	\mho	ð	\eth
⊣	\Finv	╱	\diagup
⊃	\Game	╲	\diagdown
𝕜	\Bbbk	↾	\restriction

Table 11. Arrows (math mode)

←	\leftarrow	⟵	\longleftarrow
⇐	\Leftarrow	⟸	\Longleftarrow
→	\rightarrow	⟶	\longrightarrow
⇒	\Rightarrow	⟹	\Longrightarrow
↔	\leftrightarrow	⟷	\longleftrightarrow
⇔	\Leftrightarrow	⟺	\Longleftrightarrow
↦	\mapsto	⟼	\longmapsto
↩	\hookleftarrow	↪	\hookrightarrow
↼	\leftharpoonup	⇀	\rightharpoonup
↽	\leftharpoondown	⇁	\rightharpoondown
⇌	\rightleftharpoons	⇝	\leadsto
↑	\uparrow	⇕	\Updownarrow
⇑	\Uparrow	↗	\nearrow
↓	\downarrow	↘	\searrow
⇓	\Downarrow	↙	\swarrow
↕	\updownarrow	↖	\nwarrow

Table 12. AMS arrows (math mode)

← --	\dashleftarrow	-- →	\dashrightarrow
⇇	\leftleftarrows	⇉	\rightrightarrows
⇆	\leftrightarrows	⇄	\rightleftarrows
⇚	\Lleftarrow	⇛	\Rrightarrow
↞	\twoheadleftarrow	↠	\twoheadrightarrow
↢	\leftarrowtail	↣	\rightarrowtail
↫	\looparrowleft	↬	\looparrowright
⇋	\leftrightharpoons	⇌	\rightleftharpoons
↶	\curvearrowleft	↷	\curvearrowright
↺	\circlearrowleft	↻	\circlearrowright
↰	\Lsh	↱	\Rsh
⇈	\upuparrows	⇊	\downdownarrows
↿	\upharpoonleft	↾	\upharpoonright
⇃	\downharpoonleft	⇂	\downharpoonright
⊸	\multimap	⇝	\rightsquigarrow
↭	\leftrightsquigarrow		
↚	\nleftarrow	↛	\nrightarrow
⇍	\nLeftarrow	⇏	\nRightarrow
↮	\nleftrightarrow	⇎	\nLeftrightarrow

Table 13. Relations (math mode)

≤	\leq	≥	\geq
≺	\prec	≻	\succ
≼	\preceq	≽	\succeq
≪	\ll	≫	\gg
⊂	\subset	⊃	\supset
⊆	\subseteq	⊇	\supseteq
⊏	\sqsubset	⊐	\sqsupset
⊑	\sqsubseteq	⊒	\sqsupseteq
∈	\in	∋	\ni
⊢	\vdash	⊣	\dashv
⌣	\smile	|	\mid
⌢	\frown	∥	\parallel
≠	\neq	⊥	\perp
≡	\equiv	≅	\cong
∼	\sim	⋈	\bowtie
≃	\simeq	∝	\propto
≍	\asymp	⊨	\models
≈	\approx	≐	\doteq
		⋈	\Join

Table 14. AMS binary relations (math mode)

≦	`\leqq`	≧	`\geqq`
⩽	`\leqslant`	⩾	`\geqslant`
⪕	`\eqslantless`	⪖	`\eqslantgtr`
≲	`\lesssim`	≳	`\gtrsim`
⪅	`\lessapprox`	⪆	`\gtrapprox`
≊	`\approxeq`	≂	`\eqsim`
⋖	`\lessdot`	⋗	`\gtrdot`
⋘	`\lll, \llless`	⋙	`\ggg, \gggtr`
≶	`\lessgtr`	≷	`\gtrless`
⋚	`\lesseqgtr`	⋛	`\gtreqless`
⪋	`\lesseqqgtr`	⪌	`\gtreqqless`
≑	`\doteqdot, \Doteq`	≖	`\eqcirc`
≓	`\risingdotseq`	≗	`\circeq`
≒	`\fallingdotseq`	≜	`\triangleq`
∽	`\backsim`	∼	`\thicksim`
⋍	`\backsimeq`	≈	`\thickapprox`
⊆	`\subseteqq`	⊇	`\supseteqq`
⋐	`\Subset`	⋑	`\Supset`
⊏	`\sqsubset`	⊐	`\sqsupset`
≼	`\preccurlyeq`	≽	`\succcurlyeq`
⋞	`\curlyeqprec`	⋟	`\curlyeqsucc`
≾	`\precsim`	≿	`\succsim`
⪷	`\precapprox`	⪸	`\succapprox`
◁	`\vartriangleleft`	▷	`\vartriangleright`
⊴	`\trianglelefteq`	⊵	`\trianglerighteq`
⊨	`\vDash`	⊩	`\Vdash`
⊪	`\Vvdash`		
⌣	`\smallsmile`	∣	`\shortmid`
⌢	`\smallfrown`	∥	`\shortparallel`
≏	`\bumpeq`	≬	`\between`
≎	`\Bumpeq`	⋔	`\pitchfork`
∝	`\varpropto`	϶	`\backepsilon`
◀	`\blacktriangleleft`	▶	`\blacktriangleright`
∴	`\therefore`	∵	`\because`

Table 15. AMS negated relations (math mode)

≮	\nless	≯	\ngtr
≰	\nleq	≱	\ngeq
⪇	\nleqslant	⪈	\ngeqslant
≦̸	\nleqq	≧̸	\ngeqq
⪇	\lneq	⪈	\gneq
≨	\lneqq	≩	\gneqq
≨	\lvertneqq	≩	\gvertneqq
⋦	\lnsim	⋧	\gnsim
⪉	\lnapprox	⪊	\gnapprox
⊀	\nprec	⊁	\nsucc
⋠	\npreceq	⋡	\nsucceq
⪵	\precneqq	⪶	\succneqq
⋨	\precnsim	⋩	\succnsim
⪹	\precnapprox	⪺	\succnapprox
≁	\nsim	≇	\ncong
∤	\nshortmid	∦	\nshortparallel
∤	\nmid	∦	\nparallel
⊬	\nvdash	⊭	\nvDash
⊮	\nVdash	⊯	\nVDash
⋪	\ntriangleleft	⋫	\ntriangleright
⋬	\ntrianglelefteq	⋭	\ntrianglerighteq
⊈	\nsubseteq	⊉	\nsupseteq
⊈	\nsubseteqq	⊉	\nsupseteqq
⊊	\subsetneq	⊋	\supsetneq
⊊	\varsubsetneq	⊋	\varsupsetneq
⊊	\subsetneqq	⊋	\supsetneqq
⊊	\varsubsetneqq	⊋	\varsupsetneqq

Table 16. Variable-sized symbols (math mode)

Σ	∑	\sum	∩	⋂	\bigcap
Π	∏	\prod	∪	⋃	\bigcup
∐	∐	\coprod	⊔	⨆	\bigsqcup
∫	∫	\int	∨	⋁	\bigvee
∮	∮	\oint	∧	⋀	\bigwedge
⊙	⨀	\bigodot	⊗	⨂	\bigotimes
⊕	⨁	\bigoplus	⊎	⨄	\biguplus

Table 17. Delimiters (math mode)

(	(	)	)
[	[	]	]
{	\\{	}	\\}
⌊	\lfloor	⌋	\rfloor
⌈	\lceil	⌉	\rceil
⟨	\langle	⟩	\rangle
/	/	\	\backslash
|	\vert	‖	\Vert
↑	\uparrow	⇑	\Uparrow
↓	\downarrow	⇓	\Downarrow
↕	\updownarrow	⇕	\Updownarrow
⌜	\ulcorner	⌝	\urcorner
⌞	\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	\tan
\coth	\inf	\max	\tanh

Table 19. Journal Commands

AJ	\aj	ARA&A	\araa
Astrophys. J.	\apj	ApJL	\apjl
ApJS	\apjs	Appl. Opt.	\ao
Ap&SS	\apss	A&A	\aap
A&A Rv	\aapr		
A&AS	\aaps	AZh	\azh
BAAS	\baas	Icarus	\icarus
JRASC	\jrasc	MmRAS	\memras
MNRAS	\mnras	Phys. Rev. A	\pra
Phys. Rev. B	\prb	Phys. Rev. C	\prc
Phys. Rev. D	\prd	Phys. Rev. E	\pre
Phys. Rev. Lett.	\prl	PASP	\pasp
PASJ	\pasj	QJRAS	\qjras
S&T	\skytel	SoPh	\solphys
Soviet Ast.	\sovast	SSRv	\ssr
ZA	\zap	Nature (London)	\nat
IAUC	\iaucirc	Astrophys. Lett.	\aplett
Astrophys. Space Phys. Res.	\apspr	BAN	\bain
FCPh	\fcp	GeoCoA	\gca
Geophys. Res. Lett.	\grl	J. Chem. Phys.	\jcp
J. Geophys. Res.	\jgr	JQSRT	\jqsrt
MmSAI	\memsai	NuPhA	\nphysa
PhR	\physrep	PhyS	\physscr
Planet. Space Sci.	\planss	Proc. SPIE	\procspie
AcA	\actaa	ChA&A	\caa
ChJA&A	\cjaa	JCAP	\jcap
NewA	\na	NewAR	\nar
PASA	\pasa	RMxAA	\rmxaa
M&PS	\maps	AAS Meeting Abstracts	\aas