Standard LATEX symbols (package latexsym) AMS symbols (package amssymb) stmaryrd symbols (package stmaryrd)

Aug. 25th 2000

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1 Standard Symbols

| Table 1: Greek Letters | | | |
|--|----------------------------|---------------------------------------|--|
| $lpha$ \alpha | θ \theta | 00 | τ\tau |
| β \beta | ϑ \vartheta | π\pi | υ \upsilon |
| γ\gamma | ι\iota | ϖ∖varpi | φ\phi |
| $\delta \setminus delta$ | κ \kappa | $ ho$ \rho | $\phi \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ |
| ϵ \epsilon | $\lambda \setminus lambda$ | $ ho$ \varrho | χ\chi |
| $\epsilon \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | μ \mu | $\sigma \setminus \mathtt{sigma}$ | $\psi \setminus psi$ |
| ζ\zeta | ν\nu | ς\varsigma | $\omega \setminus \! omega$ |
| η \eta | ξ\xi | | |
| | | | |
| $\Gamma \setminus Gamma$ | Λ \Lambda | $\Sigma \setminus \mathtt{Sigma}$ | $\Psi \setminus \mathtt{Psi}$ |
| $\Delta \setminus \mathtt{Delta}$ | Ξ\Xi | $\Upsilon \setminus \mathtt{Upsilon}$ | $\Omega \setminus Omega$ |
| Θ \Theta | Π\Pi | Φ \Phi | |

Table 2: Binary Operation Symbols (* only with package latexsym)

| $\pm \pm$ | ∩\cap | ♦ \diamond | $\oplus \setminus oplus$ |
|-----------------|--------------------|--|----------------------------|
| \pm /mp | ∪ \cup | \bigwedge \bigtriangleup | \ominus \ominus |
| \times \times | ⊎ \uplus | $ abla$ \bigtriangledown | \otimes \otimes |
| ÷ \div | □\sqcap | √triangleleft | $\oslash \setminus oslash$ |
| *\ast | ⊔\sqcup | ⊳\triangleright | ⊙ \odot |
| *\star | ∨ \vee | $\lhd \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | ○\bigcirc |
| o\circ | ∧ \wedge | $\triangleright \hd^*$ | †\dagger |
| • \bullet | $\$ \setminus | ⊴\unlhd* | ‡\ddagger |
| ·\cdot | <pre> \wr </pre> | ⊵\unrhd* | ■\amalg |
| ++ | - - | | |

```
Table 3: Relation Symbols (* only with package latexsym)
\leq  \leq
               \geq \setminus \mathsf{geq}

  \equiv
                                          ⊨ \models
               ≻\succ
< \prec
                               \sim \sim
                                          ⊥\perp
≺\preceq
               \simeq \setminus \mathsf{simeq}
                                          \mid
≪\11
               ≫/qq
                               symp
                                          ||\parallel
⊃\supset
                               \approx \text{\ lowtie}
⊆\subseteq
               ⊇\supseteq
                               \cong \setminus \mathsf{cong}
                                          \bowtie \setminus Join^*
≠\neq

√ \smile

\in \setminusin
               ∋\ni
                               ∝ \propto
                                          ==
⊢\vdash
               - \dashv
                               < <
                                          >>
: :
```

Table 4: Punctuation Symbols
, , ; ; :\colon .\ldotp .\cdotp

Table 5: Arrow Symbols (* only with package latexsym)

```
\leftarrow \longleftarrow
                                                  ↑\uparrow
← \Leftarrow
                       ← \Longleftarrow
                                                  ↑\Uparrow
\rightarrow \land rightarrow
                       \rightarrow \longrightarrow
                                                  ↓\downarrow
\Rightarrow \land Rightarrow
                       \Longrightarrow \Longrightarrow
                                                  ↓ \Downarrow
\leftrightarrow \ \leftrightarrow
                       ←→ \longleftrightarrow
                                                 ↑ \updownarrow
⇔ \Leftrightarrow
                       ↑ \Updownarrow
\mapsto \setminus mapsto
                       \longrightarrow \longmapsto
                                                  ← \hookleftarrow
                       \hookrightarrow \land hookrightarrow
                                                  √\searrow
→\rightharpoonup
                                                  ✓ \swarrow
→ \rightharpoondown

    \nwarrow

⇒ \rightleftharpoons
```

Table 6: Miscellaneous Symbols (* only with package latexsym)

| \ldots | ···\cdots | :\vdots | ·. \ddots |
|---|-----------------------|-----------------------------------|---|
| \aleph \aleph | /\prime | $\forall \ ackslash 	ext{forall}$ | ∞ \infty |
| \hbar \hbar | \emptyset \emptyset | \exists \exists | $\Box \setminus Box^*$ |
| $\iota \setminus \mathtt{imath}$ | $ abla$ \nabla | ¬ \neg | $\Diamond \setminus \mathtt{Diamond}^*$ |
| \jmath | $\sqrt{\}$ surd | | \triangle \triangle |
| ℓ \ell | $	op$ \top | å\natural | A \clubsuit |
| ℘\wp | ⊥ \bot | #\sharp | \Diamond \diamondsuit |
| $\Re \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | \ | $\backslash \$ \backslash | \heartsuit \heartsuit |
| $\Im \setminus Im$ | \angle \angle | $\partial \setminus partial$ | ♠\spadesuit |
| $\Omega \setminus mho_*$ | | | |

Table 7: Variable-sized Symbols

| $\sum \setminus sum$ | ∩\bigcap | \bigcirc \bigodot |
|------------------------|-------------|-----------------------|
| $\prod \setminus prod$ | U\bigcup | ⊗\bigotimes |
| \coprod | ∐\bigsqcup | \bigoplus \bigoplus |
| $\int \setminus int$ | V \bigvee | ⊕\biguplus |
| ∮\oint | ∧ \bigwedge | |

Table 8: Log-like Symbols

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

```
Table 9: Delimiters
     ( (
                    ))
                                    ↑\uparrow
                                                           ↑\Uparrow
     [
                    ]]
                                    ↓ \downarrow
                                                           ↓ \Downarrow
                                    ↑\updownarrow
↑\Updownarrow
                    } \}
     |\lfloor |\rfloor |\lceil
                                                           \rceil
     ⟨\langle ⟩\rangle
                                                           \\backslash
                                    //
                     \| \setminus \|
                          Table 10: Large Delimiters
                                                                      \lgroup
                            \lmoustache
  |\arrowvert
                         ∥\Arrowvert
                                                 \bracevert
                         Table 11: Math mode accents
\hat{a} \setminus \text{hat}\{a\}
                  \dot{a} \cdot acute\{a\} \quad \bar{a} \cdot bar\{a\} \quad \dot{a} \cdot dot\{a\}
                                                                     ă \breve{a}
\check{a} \cdot \text{check}\{a\} = \check{a} \cdot \text{grave}\{a\} = \vec{a} \cdot \text{ddot}\{a\} = \tilde{a} \cdot \text{tilde}\{a\}
                      Table 12: Some other constructions
       abc \widetilde{abc}
                                           abc \widehat{abc}
       \overrightarrow{abc}\overleftarrow{abc} \overrightarrow{abc}\overrightarrow{abc}
       \overline{abc} \setminus \text{overline}\{abc\}
                                           abc \underline{abc}
       abc \overbrace{abc}
                                           (abc) \setminus (abc) \setminus (abc)
                                           \sqrt[n]{abc} \setminus sqrt[n]{abc}
       \sqrt{abc} \setminus sqrt\{abc\}
                                           \frac{abc}{rvz} \setminus frac\{abc\}\{xyz\}
             f′
```

2 AMS-Symbols

```
Table 13: AMS Delimiters (only with package amssymb)

\[ \ulcorner \ulcorner
```

Table 14: AMS Arrows (only with package amssymb)

| → \dashrightarrow | ←— \dashleftarrow | ot ot olimits |
|--|---|--|
| $\leftrightarrows \texttt{\leftrightarrows}$ | \Leftarrow \Lleftarrow | \leftarrow \twoheadleftarrow |
| \leftarrow \leftarrowtail | \leftarrow \looparrowleft | $\leftrightarrows \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ |
| | ♂\circlearrowleft | ↑\Lsh |
| ↑↑ \upuparrows | <pre>1 \upharpoonleft</pre> | \downharpoonleft |
| ○\multimap | $\longleftrightarrow \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | $ ightharpoonup$ \rightrightarrows |
| ightleftarrows | $ ightharpoonup$ \rightrightarrows | ightleftarrows |
| $	wo$ \twoheadrightarrow | \rightarrowtail \rightarrowtail | $\hookrightarrow \label{looparrow}$ \looparrowright |
| \rightleftharpoons \rightleftharpoons | | |
| ↑\Rsh | ↓ \downdownarrows | \upharpoonright |
| \downharpoonright | \leadsto \rightsquigarrow | |

Table 15: AMS Negated Arrows (only with package amssymb)

Table 16: AMS Greek (only with package amssymb) $\digamma \forall x \forall x \in \mathcal{X}$

Table 18: AMS Miscellaneous (only with package amssymb) ħ \hbar ħ\hslash △\vartriangle ∇ \triangledown □\square ♦ \lozenge (S) \circledS ∠\angle ∄\nexists ⟨Notice | Notice ∃\Finv ∂\Game k \Bbbk \\backprime ∅ \varnothing **▲**\blacktriangle ▼\blacktriangledown ♦ \blacklozenge ■ \blacksquare ★\bigstar riangle \sphericalangle $tilde{C}$ \complement ð\eth /\diagup \\diagdown Table 19: AMS Binary Operators (only with package amssymb) ∔\dotplus ⊎ \Cup $\overline{\wedge}$ \barwedge $\stackrel{=}{\wedge}$ \doublebarwedge □ \boxminus ⊞ \boxplus * \divideontimes ⋉ \ltimes ⋊ \rtimes 人 \curlywedge ⊝\circleddash ⊗ \circledast .\centerdot ⊤\intercal

Table 20: AMS Binary Relations (only with package amssymb)

| Table 20. Alvis billary Relations (only with package amssymb) | | | | |
|---|---|----------------------------------|--|--|
| \leq \leqq | <pre> \leqslant</pre> | $<$ \eqslantless | | |
| \lesssim \lesssim | \lessapprox \lessapprox | \approxeq \approxeq | | |
| < \lessdot | < \111 | ≶∖lessgtr | | |
| \leq \lesseqgtr | $	ext{	ext{	ext{	ext{	ext{	ext{	ext{	ext$ | ⇒ \doteqdot | | |
| ≓\risingdotseq | $= \fallingdotseq$ | \sim \backsim | | |
| $\simeq \$ \backsimeq | \subseteq \subseteqq | €\Subset | | |
| | \preccurlyeq \preccurlyeq | ≺\curlyeqprec | | |
| $\precsim \setminus \mathtt{precsim}$ | ≾ \precapprox | $\lhd \$ \vartriangleleft | | |
| \leq \trianglelefteq | ⊨ \vDash | ∥⊢ \Vvdash | | |
| $\smile \$ smallsmile | | <pre></pre> | | |
| <pre>⇒ \Bumpeq</pre> | ≧ \geqq | \geqslant \geqslant | | |
| \geqslant \eqslantgtr | $\gtrsim ackslash 	ext{gtrsim}$ | \gtrapprox \gtrapprox | | |
| <pre>> \gtrdot</pre> | ≫ \ggg | \gtrless \gtrless | | |
| \geq \gtreqless | <pre></pre> | ≖ \eqcirc | | |
| ≗\circeq | ≜ \triangleq | \sim \thicksim | | |
| $pprox$ \thickapprox | \supseteq \supseteqq | ∋ \Supset | | |
| <pre> \sqsupset</pre> | $\succcurlyeq \setminus succcurlyeq$ | <pre> \curlyeqsucc </pre> | | |
| \succsim \succsim | ≿ \succapprox | | | |
| $	riangle$ \trianglerighteq | - \Vdash | \shortmid | | |
| ∥\shortparallel | <pre>() \between</pre> | $\pitchfork \setminus pitchfork$ | | |
| \propto \varpropto | \blacktriangleleft \blacktriangleleft | ∴\therefore | | |
| ∍\backepsilon | ▶ \blacktriangleright | ∵\because | | |

| Table 21: AMS Negated Binary Relations (only with package amssymb) | | | |
|---|---|------------------------------|--|
| ≮\nless | ≰ \nleq | ≰\nleqslant | |
| ≰ \nleqq | $\lneq \setminus lneq$ | \lessgtr \lneqq | |
| \leq \lvertneqq | \lesssim \lnsim | \lessapprox \lnapprox | |
| ⊀\nprec | ⊀\npreceq | ≾\precnsim | |
| ⊋√precnapprox | <pre></pre> | ∤\nshortmid | |
| ∤\nmid | ⊬\nvdash | ⊭ \nvDash | |
| $ ot \land \land$ | $ ot 	extstyle \setminus \text{ntrianglelefteq} $ | $ ot\subseteq$ \nsubseteq | |
| $\subsetneq \setminus \mathtt{subsetneq}$ | \varsubsetneq \varsubsetneq | $\subsetneq \sum$ | |
| \subsetneqq \varsubsetneqq | ≯\ngtr | ≱ \ngeq | |
| ≱\ngeqslant | ≱ \ngeqq | <pre> ≥ \gneq</pre> | |
| <pre> ≥ \gneqq</pre> | ≟\gvertneqq | $\gtrapprox \setminus gnsim$ | |
| | <pre></pre> | ≱\nsucceq | |
| | ≿\succnsim | ≿ \succnapprox | |
| ≇\ncong | ∦\nshortparallel | ∦\nparallel | |
| ⊭∖nvDash | ⊭ \nVDash | <pre></pre> | |
| <pre> \ntrianglerighteq </pre> | $ ot \supseteq \$ \nsupseteq | ⊉ \nsupseteqq | |
| \supsetneq \supsetneq | $ \supseteq$ \varsupsetneq | \supseteq \supsetneqq | |
| $ otin V$ \varsupsetneqq | | | |

3 "stmaryrd" symbols

Table 23: stmaryrd Arrows (only with package stmaryrd)

| \iff \Longmapsfrom | \Longrightarrow \Longmapsto | ⇒ \Mapsto |
|--------------------------------------|---|--|
| <pre>← \Mapsfrom</pre> | /\nnearrow | \nnwarrow |
| \ \ssearrow | <pre> √\sswarrow</pre> | ↓\shortdownarrow |
| ↑\shortuparrow | $\leftarrow \texttt{\label{local_short_leftarrow}}$ | $ ightarrow$ \shortrightarrow |
| \leftarrow \longmapsfrom | \leftarrow \mapsfrom | $\leftarrow \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ |
| $ ightharpoonup$ \rightarrowtriangle | <pre></pre> |) \rrparenthesis |
| \leftrightarrow \leftrightarroweq | ♦ \leftrightarrowtriangle | |

Table 24: stmaryrd Extension Characters (only with package stmaryrd)

\[\lambda Arrownot \quad \text{\Mapsfromchar} \text{\Mapstochar} \]

\[\mapsfromchar \mapstochar \mapstochar \]

Table 25: stmaryrd Binary Operators (only with package stmaryrd)

| Y \Ydown | ≺\Yleft | ≻\Yright |
|-------------------------------------|--|-------------------------------|
| ↓ \Yup | φ \baro | \ \bbslash |
| $\&\$ \binampersand | %\bindnasrepma | ★ \boxast |
| | □ \boxbox | $\square \setminus boxbslash$ |
| | | \square \boxempty |
| | $\not\bigvee \ \ \ \texttt{\curlyveedownarrow}$ | $ abla$ \curlyveeuparrow |
| $\not \ \ \ \ \ \ $ | $\hat{\bigwedge}$ \curlywedgeuparrow | |
| %\fatsemi | <i>[</i> \fatslash | $\ \setminus $ interleave |
| <pre>⟨ \leftslice</pre> | | → \minuso |
| ± /moo | ∩ \nplus | ⊕ \obar |
| \square \oblong | \odot \obslash | \supset \ogreaterthan |
| ⊗\olessthan | | |
| <pre>⟨ \rightslice</pre> | //\sslash | \talloblong |
| ○\varbigcirc | √ \varcurlyvee | 人 $\$ \varcurlywedge |
| | ⊕ \varobar | \otimes \varobslash |
| | ⊙ \varodot | \Diamond \varogreaterthan |
| \otimes \varolessthan | \ominus \varominus | \oplus \varoplus |
| $\oslash \setminus varoslash$ | $\otimes \setminus varotimes$ | |
| | X\vartimes | |
| | | |

Table 29: Math Alphabets

| Output | command | Required package |
|-----------------|---------------------|--------------------------------|
| ABCdef | \mathrm{ABCdef} | |
| ABCdef | \mathit{ABCdef} | |
| ABCdef | \mathnormal{ABCdef} | |
| \mathcal{ABC} | \mathcal{ABC} | |
| \mathcal{ABC} | \mathcal{ABC} | \usepackage[mathcal]{euscript} |
| | \mathscr{ABC} | \usepackage[mathscr]{euscript} |
| ABCdef | \mathfrak{ABCdef} | \usepackage{eufrak} |
| \mathbb{ABC} | \mathbb{ABC} | |
| | | \usepackage{amsfonts} oder |
| | | \usepackage{amssymb} |