# fmocdmac — FM's OCD LATEX Macro\*

# Fabio Mogavero fm@fabiomogavero.com

Released 2023/12/15

#### Abstract

This package contains almost all the latex macros I heavily use in my tcs research activity and, in particular, in the writing of conference and journal articles. As few of my co-authors have kindly pointed out, and probably many have thought, they are somehow a clear expression of an underlying ocd-like behavior... hence the name!

# 1 Implementation & Usage

1 (\*package)

# Required external packages:

```
2
3 \RequirePackage{etoolbox}
4
5 \RequirePackage{xargs}
6 \RequirePackage{xspace}
7 \RequirePackage{stringstrings}
```

## Package options:

```
10 %% Auxiliary packages
11 \newif\ifaux@ \aux@false
12 \DeclareOption{aux}{\aux@true}
13 \DeclareOption{noaux}{\aux@false}
15 %% AMS defaults
16 \newif\ifamsdef@ \amsdef@true
17 \DeclareOption{noamsdef}{\amsdef@false}
19 %% AMS theorem tools
20 \newif\ifamsthm@ \amsthm@true
21 \DeclareOption{noamsthm}{\amsthm@false}
23 %% Extended Theorem tools
24 \newif\ifthmtls@ \thmtls@true
25 \DeclareOption{nothmtls}{\thmtls@false}
27 %% Enumeration tools
28 \newif\ifenmtls@ \enmtls@true
29 \DeclareOption{noenmtls}{\enmtls@false}
31 %% Hyper reference
32 \newif\ifhypref@ \hypref@true
33 \DeclareOption{nohypref}{\hypref@false}
```

<sup>\*</sup>This document describes version v0.27 of the fmocdmac package, last revised 2023/12/15.

```
35 %% Font tools
36 \newif\iffnttls@ \fnttls@true
37 \DeclareOption{nofnttls}{\fnttls@false}
39 %% Camera-ready version
40 \newif\ifcrv@ \crv@false
41 \DeclareOption{crv}{\crv@true}
43 %% Change bars
44 \newif\ifchgbar@ \chgbar@false
45 \DeclareOption{chgbar}{\chgbar@true}
47 %% Line numbers
48 \newif\iflinnum@ \linnum@false
49 \DeclareOption{linnum}{\linnum@true}
51
52 %% Text macro generation
53 \newif\iftxtgen@ \txtgen@false
54 \DeclareOption{txtgen}{\txtgen@true}
55 \DeclareOption{notxtgen}
    {\txtgen@false\txt@false\com@false\gam@false\log@false\aut@false}
57
58 %% Math macro generation
59 \newif\ifmthgen@ \mthgen@false
60 \DeclareOption{mthgen}{\mthgen@true}
61 \DeclareOption{nomthgen}
    {\mthgen@false\mth@false\gam@false\log@false\aut@false}
63
65 %% Elementary macros for text
66 \newif\iftxt@ \txt@false
67 \DeclareOption{txt}{\txt@true\txtgen@true}
68 \label{lem:continuity} $$ \operatorname{DeclareOption}_{notxt}_{\text{txt@false}} $$
69
70 %% Elementary macros for math
71 \newif\ifmth@ \mth@false
72 \DeclareOption{mth}{\mth@true\mthgen@true}
73 \DeclareOption{nomth}{\mth@false}
76 %% Macros for computational-complexity classes
77 \newif\ifcom@ \com@false
78 \DeclareOption{com}{\com@true\txtgen@true}
79 \DeclareOption{nocom}{\com@false}
82 %% Macros for graphs
83 \newif\ifgrp@ \grp@false
84 \end{true} txtgen@true \end{true}
85 \DeclareOption{nogrp}{\grp@false}
87 %% Macros for games
88 \newif\ifgam@ \gam@false
89 \DeclareOption{gam}{\gam@true\txtgen@true\mthgen@true}
90 \DeclareOption{nogam}{\gam@false}
91
92 \%\% Macros for logics
93 \newif\iflog@ \log@false
94 \DeclareOption{log}{\log@true\txtgen@true\mthgen@true}
95 \DeclareOption{nolog}{\log@false}
97 %% Macros for automata
```

```
99 \DeclareOption{aut}{\aut@true\txtgen@true\mthgen@true}
                 100 \DeclareOption{noaut}{\aut@false}
                102
                103 %% Format-related tricks
                 104 \newif\iffrm@ \frm@false
                 105 \DeclareOption{frm}{\frm@true}
                 106 \DeclareOption{nofrm}{\frm@false}
                 108
                 109 %% Figure-related tricks
                 110 \newif\iffig@ \fig@false
                 111 \DeclareOption{fig}{\fig@true}
                 112 \DeclareOption{nofig}{\fig@false}
                113
                114 %% Wrapfig package
                 115 \newif\ifwrpfig@ \wrpfig@true
                 116 \DeclareOption{nowrpfig}{\wrpfig@false}
                 117
                 118
                 119 %% Table-related tricks
                 120 \newif\iftab@ \tab@false
                 121 \DeclareOption{tab}{\tab@true}
                122 \DeclareOption{notab}{\tab@false}
                124
                 125 %% Algorithm-related tricks
                 126 \newif\ifalg@ \alg@false
                 127 \DeclareOption{alg}{\alg@true}
                 128 \DeclareOption{noalg}{\alg@false}
                Option-processing code:
                 131 \ensuremath{\mbox{\mbox{$131$ \colored{\mbox{\mbox{\mbox{\mbox{$131$ \colored{\mbox{\mbox{$131$ \colored{\mbox{$131$ \colored{\mb
                 133 \ExecuteOptions{aux,txtgen,mthgen,txt,mth,com,grp,gam,log,aut}%
                 135 \ProcessOptions\relax%
                 137 \ifcsdef{if@twocolumn}{}{\newif\if@twocolumn}
               Package main body:
                 \omicron Auxiliary Greek lowercase letter: ... to do!
                143 \csdef{omicron}{o}
   \Alpha Auxiliary Greek uppercase letters: ... to do!
         \begin{tabular}{l} $$ \csdef{Alpha}_A} \csdef{Beta}_B \csdef{Epsilon}_E} \csdef{varEpsilon}_E
                 145 \csdef{Zeta}{Z} \csdef{Eta}{H} \csdef{Iota}{I} \csdef{Kappa}{K}
                 146 \csdef{warKappa}{K} \csdef{Mu}{M} \csdef{Nu}{N} \csdef{Omicron}{0}
                 147 \csdef\{Rho\}\{P\} \csdef\{VarRho\}\{P\} \csdef\{Tau\}\{T\} \csdef\{Chi\}\{X\}\}
```

98 \newif\ifaut@ \aut@false

```
and to Argument \langle B \rangle, otherwise.
            • \empchk{}{B} = ""
            • \empchk{A}{B} = "B"
          152 \DeclareRobustCommand{\empchk}[2]
               {\left\{ if \&#1\& else#2\right\} }
\defval Default value: \defval\{\langle A \rangle\}\{\langle B \rangle\} evaluates to Argument \langle B \rangle, if Argument \langle A \rangle is empty, and to
        Argument \langle A \rangle itself, otherwise.
            • \defval{}{B} = "B"
            • \defval{A}{B} = "A"
          154 \newcommand{\defval}[2]
              {\left\{ if \&#1\&#2\right\} }
          \arglef Left extension: \arglef{\langle}A\rangle} \ext{\langle} evaluates to the concatenation \langle AB \rangle of the two arguments, if
        Argument \langle B \rangle is non-empty, and to the empty string, otherwise.
            • \arglef{A}{} = ""
            • \arglef{A}{B} = "AB"
          157 \DeclareRobustCommand{\arglef}[2]
              {\empchk{#2}{#1#2}}
\argrig Right extension: \argrig{\langle A\rangle} \{\langle B\rangle}$ evaluates to the concatenation \langle AB \rangle of the two arguments,
        if Argument \langle A \rangle is non-empty, and to the empty string, otherwise.
            • \argrig{}{B} = ""
            • \argrig{A}{B} = "AB"
          159 \DeclareRobustCommand{\argrig}[2]
              {\empchk{#1}{#1#2}}
\argmid\ Middle\ extension: \argmid\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\}\ evaluates to the concatenation \langle ABC \rangle of the three
        arguments, if Argument \langle B \rangle is non-empty, and to the empty string, otherwise.
            • \argmid{A}{}{C} = ""
            • \argmid{A}{B}{C} = "ABC"
          161 \DeclareRobustCommand{\argmid}[3]
               {\empchk{#2}{#1#2#3}}
\argsep Separators: \argsep\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} evaluates to Argument \langle C \rangle, if Argument \langle A \rangle is empty, to
        Argument \langle A \rangle, if Argument \langle C \rangle is empty, and to the concatenation \langle ABC \rangle, otherwise.
            • \argsep{}{B}{C} = "C"
            • \argsep{A}{B}{} = "A"
            • \argsep{A}{}{C} = "AC"
            • \argsep{A}{B}{C} = "ABC"
          163 \DeclareRobustCommand{\argsep}[3]
               {\if&#1&#3\else#1\arglef{#2}{#3}\fi}
          166 \DeclareRobustCommand{\varcmd}[6]
               {\expandafter\newcommand\csname gobble#1arg\endcsname[2]
          167
                  {\csname check#1arg\endcsname{\argsep{##1}{#4}{\empchk{##2}{{##2}}}}}
          168
               \expandafter\newcommand\csname check#1arg\endcsname[1]
          169
                 {\csname @ifnextchar\endcsname%
          170
                    \bgroup{\csname gobble#1arg\endcsname{##1}}{#2{##1#5}#6}}%
          171
               \expandafter\newcommand\csname#1\endcsname[1]
          172
          173
                 {\csname check#1arg\endcsname{#3##1}}}
```

\empth Emptiness check: \empchk $\{\langle A \rangle\}\{\langle B \rangle\}$  evaluates to the empty string, if Argument  $\langle A \rangle$  is empty,

```
\seqoftag Sequence of tags: \seqoftag\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} ... to do!
             175 \DeclareRobustCommand{\seqoftag}[3]
                  {\@for\itr:={#1}\do%
                    {\expandafter\csedef{\itr#2}%
             177
             178
                      {\noexpand\csname #3\endcsname{\itr}}}
  \seqofcmd Sequence of commands: \seqofcmd\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} ... to do!
             179 \DeclareRobustCommand{\seqofcmd}[3]
             180
                  {\@for\itr:={#1}\do%
             181
                    {\expandafter\csedef{\itr#2}%
             182
                      {\noexpand\csname #3\endcsname{\csname \itr\endcsname}}}
             \seqoflatlow Sequence of Latin lowercase letters: \seqoflatlow{\langle A \rangle}{\langle B \rangle} ... to do!
             184 \DeclareRobustCommand{\seqoflatlow}
                 {\seqoftag{a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z}}
\seqoflatupp Sequence of Latin uppercase letters: \seqoflatupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             186 \DeclareRobustCommand{\seqoflatupp}
                 {\seqoftag{A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z}}
\seqoflatlet Sequence of Latin letters: \seqoflatlet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             188 \DeclareRobustCommand{\seqoflatlet}[2]
                  {\seqoflatlow{#1}{#2}\seqoflatupp{#1}{#2}}
             \seqofgrklow Sequence of Greek lowercase letters: \sqootnote{seqofgrklow} \{\langle A \rangle\} \{\langle B \rangle\} \dots to do!
             191 \DeclareRobustCommand{\seqofgrklow}
                 {\seqofcmd{alpha,beta,gamma,delta,epsilon,varepsilon,zeta,eta,theta,vartheta,%
                  iota, kappa, varkappa, lambda, mu, nu, xi, omicron, pi, varpi, rho, varrho, sigma, %
                  varsigma,tau,upsilon,phi,varphi,chi,psi,omega}}
             194
\seqofgrkupp Sequence of Greek uppercase letters: \seqofgrkupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             195 \DeclareRobustCommand{\seqofgrkupp}
                  Iota, Kappa, varKappa, Lambda, Mu, Nu, Xi, Omicron, Pi, varPi, Rho, varRho, Sigma, %
                  varSigma,Tau,Upsilon,Phi,varPhi,Chi,Psi,Omega}}
             198
\sequipseqofgrklet Sequence of Greek letters: \sequipseqofgrklet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             199 \DeclareRobustCommand{\seqofgrklet}[2]
                  {\seqofgrklow{#1}{#2}\seqofgrkupp{#1}{#2}}
             \seqoflow Sequence of lowercase letters: \seqoflow{\langle A \rangle}{\langle B \rangle} ... to do!
             202 \DeclareRobustCommand{\seqoflow}[2]
                  {\seqoflatlow{#1}{#2}\seqofgrklow{#1}{#2}}
   \seqofupp Sequence of uppercase letters: \seqofupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             204 \DeclareRobustCommand{\seqofupp}[2]
                 {\seqoflatupp{#1}{#2}\seqofgrkupp{#1}{#2}}
   \seqoflet Sequence of all letters: \seqoflet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
             206 \DeclareRobustCommand{\segoflet}[2]
                 {\seqoflow{#1}{#2}\seqofupp{#1}{#2}}
```

```
212 \ifaux@
213
214 \ifamsdef@
215 % AMS Packages
   \RequirePackage{mathtools}
    \RequirePackage{amssymb}
    \RequirePackage{stmaryrd}
   \interdisplaylinepenalty=2500
220 \fi
221
222 \in \mathbb{C}
223 % AMS Theorem Tools
   \RequirePackage{amsthm}
225 \fi
226
227 \ifthmtls@
   % Extended Theorem Tools
    \RequirePackage{thmtools}
    \RequirePackage{thm-restate}
230
231 \fi
232
233 \ifenmtls@
234 % Enumeration Tools
    \RequirePackage{paralist}
236 \fi
237
238 \ifhypref@
    % Hyper References
    \RequirePackage{hyperref}
    \hypersetup {
     pdfsubject
                 = {},
242
     pdfkeywords
                = {},
243
     pdfproducer = {},
244
245
     pdfcreator
                 = {},
246
     pdfpagemode = {UseNone},
247
     pdfstartview = {FitH},
248
     urlcolor
                 = {blue},
249
     colorlinks
250 }
251 \fi
252
253 \iffnttls@
254 % Font Tools
255 \RequirePackage[final]{microtype}
256 \fi
257
258 \ifcrv@
    % Camera-Ready Version
261
    %%...
^{262}
263 \else
    % Draft Version
264
265
    %%...
266
267
    \ifchgbar@
268
269
     % Change Bars
270
      \RequirePackage{changebar}
271
    \fi
```

```
272
                   273
                           \iflinnum@
                  274
                              % Line Numbers
                  275
                              \if@twocolumn
                                 \RequirePackage[switch, columnwise, mathlines]{lineno}\linenumbers
                  276
                  277
                              \else
                                 \RequirePackage[columnwise, mathlines]{lineno}\linenumbers
                  278
                  279
                              \fi
                           \fi
                  280
                  281
                          %%...
                  282
                  283
                  284 \fi
                  285
                  286 \fi
                  \mathbbo Bbo Math Font: ... to do!
                  291 \left( \frac{mathbbo}{{\mathbb{U}_{m}}_n} \right)
   \matheus Eus Math Font: ... to do!
                  292 \ifdef{\matheus}{}{\DeclareMathAlphabet{\matheus}{U}{eus}{m}{n}}
   \mathpzc Pzc Math Font: ... to do!
                  293 \ifdef{\mathpzc}{}{\DeclareMathAlphabet{\mathpzc}{T1}{pzc}{m}{it}}
   \mathscr Scr Math Font: ... to do!
                  294 \left\{ \mathbf{Wathscr} { \mathbb{U} { rsfs}{m}{n} } \right\}
                  \newtxt ... to do!
                      • \mbox{\ensuremath{\text{Name}}[sub][sup][Ext]} = \mbox{\ensuremath{\text{Name}}} \mbox{\ensuremath{\text{Ext}}}
                       • \newtxt[\sffamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                       • \newtxt[\ttfamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                      • \newtxt*[\rmfamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                       • \newtxt*[\sffamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                       • \newtxt*[\ttfamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                  299 \DeclareRobustCommand{\newtxt}
                         {\@ifstar{\@snewtxt}{\@newtxt}}
                   301 \DeclareRobustCommandx{\@newtxt}[5][1=, 3=, 4=, 5=]
                         {\text{#1#2\txtsubsup[#1]{#3}{#4}#5}\xspace}
                  303 \DeclareRobustCommandx{\@snewtxt}[5][1=, 3=, 4=, 5=]
                          {#1#2\txtsubsup[#1]{#3}{#4}#5\normalfont\xspace}
\newtxtsty ... to do!
                      • \newtxtsty{\rmfamily}{Name}[sub][sup][Ext] = "Name_sub_Ext"
                      • \newtxtsty{\rmfamily}[\sffamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                       • \newtxtsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                       • \mbox{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxtsty*{\newtxts
                       • \newtxtsty*{\rmfamily}[\sffamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                       • \newtxtsty*{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
```

```
305 \DeclareRobustCommand{\newtxtsty}
                                                            306 {\@ifstar{\@snewtxtsty}{\@newtxtsty}}
                                                            307 \DeclareRobustCommandx{\@newtxtsty}[2][2=]
                                                            308 {\newtxt[\defval{#2}{#1}]}
                                                            309 \DeclareRobustCommandx{\@snewtxtsty}[2][2=]
                                                            310 {\newtxt*[\defval{#2}{#1}]}
               \newtxtarg ... to do!
                                                                      \bullet \ \texttt{Name}_{sub}^{sup}[\texttt{Ext1}] \ \texttt{Arg}[\texttt{Ext2}] = \texttt{``Name}_{sub}^{sup} \texttt{Ext1}(\texttt{Arg}) \texttt{Ext2}''
                                                                      • \newtxtarg[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sub_Ext1(Arg)Ext2"
                                                                       \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ \  \  \  } \texttt{ \  \  } \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ \  \  \  } \texttt{ \  \
                                                                       \bullet \texttt{ \newtxtarg*[\nmfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name^{\sup}_{\sup} Ext1(Arg) Ext2" } 
                                                                      • \newtxtarg*[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sub_Ext1(Arg)Ext2"
                                                                      • \newtxtarg*[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sup_Ext1(Arg)Ext2"
                                                            311 \DeclareRobustCommand{\newtxtarg}
                                                            312 {\@ifstar{\@snewtxtarg}{\@newtxtarg}}
                                                            313 \DeclareRobustCommandx{\@newtxtarg}[7][1=, 3=, 4=, 5=, 7=]
                                                             314 {\newtxt[#1]{#2}[#3][#4][\argmid{#5(}{#6}{)#7}]}
                                                            315 \DeclareRobustCommandx{\@snewtxtarg}[7][1=, 3=, 4=, 5=, 7=]
                                                            316 {\newtxt*[#1]{#2}[#3][#4][\argmid{#5(}{#6}{)#7}]}
   \newtxtargsty ... to do!
                                                                       \bullet \mathtt{Name}^{\sup}_{\sup} \mathrm{Ext1} \{ \mathrm{Arg} \} [\mathrm{Ext2}] = \mathrm{``Name}^{\sup}_{\sup} \mathrm{Ext1} (\mathrm{Arg}) \mathrm{Ext2} \mathrm{'`}
                                                                       \bullet \texttt{\newtxtargsty}(\texttt{\nmfamily})[\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfamily}][\texttt{\nmfam
                                                                      • \newtxtargsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name sup Ext1(Arg)Ext2"
                                                                       \bullet \texttt{\newtxtargsty*{\nmfamily}{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name^{\sup}_{\sup} Ext1(Arg) Ext2" } 
                                                                       \bullet \texttt{\newtxtargsty*{\normaliv}[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = \texttt{``Name}^{sup}_{sub} Ext1(Arg) Ext2" } \\
                                                                      • \newtxtargsty*{\rmfamily}[\ttfamily]{\Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sup}Ext1(Arg)Ext2"
                                                            317 \DeclareRobustCommand{\newtxtargsty}
                                                            318 {\@ifstar{\@snewtxtargsty}{\@newtxtargsty}}
                                                             319 \DeclareRobustCommandx{\@newtxtargsty}[2][2=]
                                                            320 {\newtxtarg[\defval{#2}{#1}]}
                                                             321 \DeclareRobustCommandx{\@snewtxtargsty}[2][2=]
                                                                            {\newtxtarg*[\defval{#2}{#1}]}
           \newtxtoarg ... to do!
                                                                      • \mbox{\ensuremath{\text{loss}}[sub][sup][Arg]} = \mbox{\ensuremath{\text{Name}}} \mbox{\ensuremath{\text{sub}}}(Arg)
                                                                      • \newtxtoarg[\sffamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                                                      • \newtxtoarg[\ttfamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                                                      • \mbox{\ensuremath{\text{Name}}} \mbox{\ensuremath{[sub]}} \mbox{\ensuremath{[sup]}} \mbox{\ensuremath{[Arg]}} = \mbox{\ensuremath{"Name}} \mbox{\ensuremath{[sup]}} \mbox{\ensuremath{[Arg]}} = \mbox{\ensuremath{"Name}} \mbox{\ensuremath{[sub]}} \mbox{\e
                                                                      • \newtxtoarg*[\sffamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                                                      • \newtxtoarg*[\ttfamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                                            323 \DeclareRobustCommand{\newtxtoarg}
                                                            324 {\@ifstar{\@snewtxtoarg}{\@newtxtoarg}}
                                                             325 \DeclareRobustCommandx{\@newtxtoarg}[5][1=, 3=, 4=, 5=]
                                                             326 {\newtxtarg[#1]{#2}[#3][#4][]{#5}[]}
                                                            327 \DeclareRobustCommandx{\@snewtxtoarg}[5][1=, 3=, 4=, 5=]
                                                                              {\newtxtarg*[#1]{#2}[#3][#4][]{#5}[]}
\newtxtoargsty ... to do!
                                                                      • \new txtoargsty{\mbox{\mbox{\mbox{$Name$} [sub] [sup] [Arg] = "Name}_{sub}^{sup}(Arg)"}
                                                                      • \mbox{\normality}[\mbox{\normality}]{\normality}[\sub][\sub][\sub][\sub][\normality] = "Name_{sub}^{sup}(\normality)"
                                                                      • \newtxtoargsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                                                      \bullet \ \texttt{\normalights} \ [sub] \ [sup] \ [Arg] = "Name^{\sup}_{sub} (Arg)"
                                                                      • \new txtoargsty*{\new [sub][sup][Arg] = "Name_sub_{sub}(Arg)"}
```

```
329 \DeclareRobustCommand{\newtxtoargsty}
                                                              330 {\@ifstar{\@snewtxtoargsty}{\@newtxtoargsty}}
                                                              331 \DeclareRobustCommandx{\@newtxtoargsty}[2][2=]
                                                              332 {\newtxtoarg[\defval{#2}{#1}]}
                                                              333 \DeclareRobustCommandx{\@snewtxtoargsty}[2][2=]
                                                              334 {\newtxtoarg*[\defval{#2}{#1}]}
               \newtxtpar ... to do!
                                                                        \bullet \texttt{\ \ } \texttt{[Ext1] \{Par\}[Ext2]} = \texttt{\ \ \ } \texttt{\ \ } \texttt{Ext1[Par]Ext2"} 
                                                                       • \newtxtpar[\sffamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sub_Ext1[Par]Ext2"
                                                                       • \newtxtpar[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sup_Ext1[Par]Ext2"
                                                                         \bullet \texttt{\newtxtpar*[\nmfamily]{Name}[sub][sup][Ext1]{Par}[Ext2]} = "Name^{\sup}_{\sup} Ext1[Par] Ext2" 
                                                                        \bullet \texttt{\newtxtpar*[\sub][sub][sub][Ext1]{Par}[Ext2] = \texttt{``Name}^{sup}_{sub} \texttt{Ext1[Par]Ext2''} } 
                                                                        • \newtxtpar*[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name sup Ext1[Par]Ext2"
                                                              335 \DeclareRobustCommand{\newtxtpar}
                                                              336 {\@ifstar{\@snewtxtpar}{\@newtxtpar}}
                                                              337 \DeclareRobustCommandx{\Onewtxtpar}[7][1=, 3=, 4=, 5=, 7=]
                                                              338 {\newtxt[#1]{#2}[#3][#4][\argmid{#5[}{#6}{]#7}]}
                                                              339 \DeclareRobustCommandx{\@snewtxtpar}[7][1=, 3=, 4=, 5=, 7=]
                                                              340 {\newtxt*[#1]{#2}[#3][#4][\argmid{#5[}{#6}{]#7}]}
   \newtxtparsty ... to do!
                                                                        \bullet \texttt{\newtxtparsty}(\texttt{\normally}\{\texttt{Name}\}[\texttt{sub}][\texttt{sup}][\texttt{Ext1}]\{\texttt{Par}\}[\texttt{Ext2}] = \texttt{\normall}(\texttt{Name}) \\ \texttt{\normall}(\texttt{\normall}(\texttt{Par})) \\ \texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\normall}(\texttt{\n
                                                                       • \newtxtparsty{\rmfamily}[\sffamily]{\Name}[sub][sup][Ext1]{\Par}[Ext2] = "Name*sub*Ext1[Par]Ext2"
                                                                       • \newtxtparsty{\rmfamily}[\ttfamily]{\Name}[sub][sup][Ext1]{\Par}[Ext2] = "Name_sub_Ext1[Par]Ext2"
                                                                       • \mbox{\newtxtparsty*{\nmfamily}{Name}[sub][sup][Ext1]{Par}[Ext2] = \mbox{\newtxtparsty*{\nmfamily}{Ext1[Par]Ext2"}}
                                                                        \bullet \texttt{\newtxtparsty*{\normalivg}[sub][sub][sub][Ext1]{Par}[Ext2] = \texttt{``Name}^{sup}_{sub} \texttt{Ext1[Par]Ext2''} 
                                                                        \bullet \mathtt{Name}_{sub}^{\mathsf{Sup}}[\mathsf{Ext1}] \\ \{\mathsf{Par}\}[\mathsf{Ext2}] = \mathtt{``Name}_{sub}^{\mathsf{Sup}}\mathsf{Ext1}[\mathsf{Par}] \\ \mathsf{Ext2}] \\ = \mathtt{``Name}_{sub}^{\mathsf{Sup}}\mathsf{Ext1}[\mathsf{Par}] \\ \mathsf{Ext2}[\mathsf{Par}] \\ \mathsf{Par}[\mathsf{Par}] \\ \mathsf
                                                              341 \DeclareRobustCommand{\newtxtparsty}
                                                              342 {\@ifstar{\@snewtxtparsty}{\@newtxtparsty}}
                                                              343 \DeclareRobustCommandx{\@newtxtparsty}[2][2=]
                                                              344 {\text{newtxtpar[\defval{#2}{#1}]}}
                                                              345 \DeclareRobustCommandx{\@snewtxtparsty}[2][2=]
                                                             346 {\texttt{newtxtpar*[\defval{#2}{#1}]}}
           \newtxtopar ... to do!
                                                                       • \mbox{\ensuremath{\texttt{Name}}[sub][sup][Par]} = \mbox{\ensuremath{\texttt{Name}}} \mbox{\ensuremath{\texttt{Sup}}[Par]}"
                                                                       • \newtxtopar[\sffamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                                                       \bullet \ \texttt{\ \ } [Sub] \ [Sup] \ [Par] = "Name_{sub}^{sup} \ [Par]"
                                                                        • \mbox{\ensuremath{\texttt{Name}}[sub][sup][Par]} = \mbox{\ensuremath{\texttt{Name}}} \mbox{\ensuremath{\texttt{Sup}}[Par]}"
                                                                        • \newtxtopar*[\ttfamily]{Name}[sub][sup][Par] = "Name_sup_[Par]"
                                                              347 \DeclareRobustCommand{\newtxtopar}
                                                              348 {\@ifstar{\@snewtxtopar}{\@newtxtopar}}
                                                              349 \DeclareRobustCommandx{\@newtxtopar}[5][1=, 3=, 4=, 5=]
                                                              350 {\newtxtpar[#1]{#2}[#3][#4][]{#5}[]}
                                                              351 \DeclareRobustCommandx{\@snewtxtopar}[5][1=, 3=, 4=, 5=]
                                                              352 {\newtxtpar*[#1]{#2}[#3][#4][]{#5}[]}
\mbox{\ensuremath{\text{newtxtoparsty}}} ... to do!
                                                                        \bullet \verb| \newtxtoparsty{\new1} {\rm [sub] [sup] [Par]} = "Name_{\rm sub}^{\rm sup} [Par]" \\
                                                                       • \newtxtoparsty{\rmfamily}[\sffamily]{Name}[sub][sup][Par] = "Name_sub[Par]"
                                                                        • \newtxtoparsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                                                        • \mbox{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\newtxtoparsty*{\new
```

```
• \newtxtoparsty*{\rmfamily}[\sffamily]{Name}[sub][sup][Par] = "Name_sub_Par]"
                                  • \newtxtoparsty*{\rmfamily}[\ttfamily]{Name}[sub][sup][Par] = "Name_sup_[Par]"
                            353 \DeclareRobustCommand{\newtxtoparsty}
                            354 {\@ifstar{\@snewtxtoparsty}{\@newtxtoparsty}}
                            355 \DeclareRobustCommandx{\@newtxtoparsty}[2][2=]
                            356 {\newtxtopar[\defval{#2}{#1}]}
                            357 \DeclareRobustCommandx{\@snewtxtoparsty}[2][2=]
                                      {\newtxtopar*[\defval{#2}{#1}]}
\txtsubsup ... to do!
                                   \bullet \texttt{ \txtsubsup\{sub\}\{\}} = \texttt{``sub''}; \texttt{\txtsubsup\{\}} = \texttt{``sup''}; \texttt{\txtsubsup\{sub\}} = \texttt{``sub''}; \texttt{\txtsubsub\{sub\}} = \texttt{``sub
                                  • \txtsubsup[\sffamily]{Aa}{Bb} = "Bb" Aa
                                  • \txtsubsup[\ttfamily]{Aa}{Bb} = \(\frac{\lambda Bb}{\text{Aa}}\)
                            359 \DeclareRobustCommand{\txtsubsup}[3][]
                                       {\ensuremath{\empchk{#2}{_{\text{#1#2}}}\empchk{#3}{^{\text{#1#3}}}}}
              \txt ... to do!
                                  • \txt{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                  • \text{txt[\scshape]}\{\text{Name}\}[\text{sub}][\text{Ext}] = \text{"Name}_{\text{SUB}}^{\text{SUP}}EXT"
                                  • \txt[\bfseries]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                                  • \text{txt*{Name}}[\text{sub}][\text{sup}][\text{Ext}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext"}
                                  • \text{txt*[\scshape]} \{\text{Name}\} [\text{sub}] [\text{Ext}] = \text{"Name}_{\text{SUB}}^{\text{SUP}} Ext"
                                  • \txt*[\bfseries]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                            362 \DeclareRobustCommand{\txt}
                                       {\@ifstar{\newtxtsty*{\txtsty}}{\newtxtsty{\txtsty}}}
       \txtarg ... to do!
                                  • \text{txtarg{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Arg}}[\text{Ext2}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext1}(\text{Arg})\text{Ext2}"
                                  • \text{txtarg[\scshape]} \{\text{Name}\} [\text{sub}] [\text{sup}] [\text{Ext1}] \{\text{Arg}\} [\text{Ext2}] = \text{"Name}_{\text{SUB}}^{\text{SUP}} Ext1 (\text{Arg}) Ext2"
                                   \bullet \texttt{ \txtarg[\bfseries] \{Name\}[sub] [sup] [Ext1] \{Arg\} [Ext2] = "Name} \\ \text{sub} \text{Ext1}(Arg) \text{Ext2"} 
                                  • \txtarg*{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sup_Ext1(Arg)Ext2"
                                  • \txtarg*[\scshape]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NAMESUBEXT1(ARG)EXT2"
                                   \verb| txtarg*[\bfseries]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2" 
                            364 \DeclareRobustCommand{\txtarg}
                                      {\@ifstar{\newtxtargsty*{\txtsty}}{\newtxtargsty{\txtsty}}}
     \txtoarg ... to do!
                                  • \txtoarg{Name}[sub][sup][Arg] = "Name<sub>sub</sub>(Arg)"
                                  • \txtoarg[\scshape]{Name}[sub][sup][Arg] = "NAME_SUB(ARG)"
                                  • \text{txtoarg[\bfseries]}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Arg}] = \text{"Name}_{\text{sub}}^{\text{sup}}(\text{Arg})"
                                  • \txtoarg*{Name}[sub][sup][Arg] = "Name<sup>sup</sup><sub>sub</sub>(Arg)"
                                  • \txtoarg*[\scshape]{Name}[sub][sup][Arg] = "NAME_SUB(ARG)"
                                  • \txtoarg*[\bfseries]{Name}[sub][sup][Arg] = "Name^{sup}_{sub}(Arg)"
                            366 \DeclareRobustCommand{\txtoarg}
                                      {\@ifstar{\newtxtoargsty*{\txtsty}}{\newtxtoargsty{\txtsty}}}
      \txtpar ... to do!
                                  • \txtpar{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sub_Ext1[Par]Ext2"
                                  • \txtpar[\scshape] {Name} [sub] [sup] [Ext1] {Par} [Ext2] = "NAME_SUB_EXT1 [PAR] EXT2"
                                  • \txtpar[\bfseries] {Name} [sub] [sub] [Ext1] {Par} [Ext2] = "Name_sub_Ext1[Par]Ext2"
                                  • \txtpar*{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_{\text{sub}}^{\text{sup}}Ext1[Par]Ext2"
```

• \txtpar\*[\scshape]{Name}[sub][sup][Ext1]{Par}[Ext2] = "NAME\_SUP EXT1[PAR]EXT2"

```
 \verb| txtpar*[\bfseries]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_{sub}^{sup}Ext1[Par]Ext2" 
                           368 \DeclareRobustCommand{\txtpar}
                                   {\@ifstar{\newtxtparsty*{\txtsty}}{\newtxtparsty{\txtsty}}}
      \txtopar ... to do!
                                • \text{txtopar{Name}[sub][sup][Par]} = \text{"Name}_{\text{sub}}^{\text{sup}}[Par]"
                                • \txtopar[\scshape]{Name}[sub][sup][Par] = "NAME_SUB[PAR]"
                                • \t vopar[\bfseries]{Name}[sub][sup][Par] = "Name <math>_{sub}^{sup}[Par]"
                                • \text{txtopar}*{\text{Name}}[\text{sub}][\text{sup}][\text{Par}] = \text{"Name}_{\text{sub}}^{\text{sup}}[\text{Par}]"
                                • \txtopar*[\scshape]{Name}[sub][sup][Par] = "NAME_SUB[PAR]"
                                • \text{txtopar*[\bfseries]}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Par}] = \text{"Name}_{\text{sub}}^{\text{sup}}[\text{Par}]"
                           370 \DeclareRobustCommand{\txtopar}
                                    {\@ifstar{\newtxtoparsty*{\txtsty}}{\newtxtoparsty{\txtsty}}}
        \txtsty ... to do!
                           372 \newcommand{\txtsty}
                                   {\mdseries\upshape\rmfamily}
                           \cmdtxt ... to do!
                                • \cmdtxt{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                    \text{txtNewCmd}\{\text{Name}\}[\text{sub}][\text{Ext}] = \text{Name}_{\text{SUB}}^{\text{SUP}}\text{Ext}
                                    \verb|\txtNewCmd*{Name}[sub][sup][Ext]| = \verb|\Name|_{SUB}^{SUP}Ext|
                           375 \DeclareRobustCommand{\cmdtxt}[1]
                                    {\csdef{txt#1}%
                           377
                                           {\@ifstar%
                                               {\newtxtsty*{\csname txtsty#1\endcsname}}%
                           378
                           379
                                               {\newtxtsty{\csname txtsty#1\endcsname}}}}
  \cmdtxtarg ... to do!
                                • \cmdtxtarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                    \verb|\txtargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = \verb|\Name|^{SUP}Ext1(Arg)Ext2|
                                    \verb|\txtargNewCmd*{Name}| [sub] [sup] [Ext1] {Arg} [Ext2] = \verb|\txtargNewEmd*{Name}| 
                           380 \DeclareRobustCommand{\cmdtxtarg}[1]
                                    {\csdef{txtarg#1}%
                           381
                                           {\@ifstar%
                           382
                                               {\newtxtargsty*{\csname txtsty#1\endcsname}}%
                           383
                                               {\newtxtargsty{\csname txtsty#1\endcsname}}}}
                           384
\cmdtxtoarg ... to do!
                                • \cmdtxtoarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                    \verb|\txtoargNewCmd{Name}[sub][sup][Arg] = \verb|\Name|^{SUP}(Arg)
                                    \verb|\txtoargNewCmd*{Name}[sub][sup][Arg] = \verb|\NAME|_{SUB}^{SUP}(Arg)
                           385 \DeclareRobustCommand{\cmdtxtoarg}[1]
                                    {\csdef{txtoarg#1}%
                           386
                                           {\@ifstar%
                           387
                                               {\newtxtoargsty*{\csname txtsty#1\endcsname}}%
                           388
                                              {\newtxtoargsty{\csname txtsty#1\endcsname}}}}
                           389
  \cmdtxtpar ... to do!
                                • \cmdtxtpar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                    \label{eq:local_local_transform} $$ \operatorname{Name}[\operatorname{Sup}][\operatorname{Ext1}] = \operatorname{Name}_{\operatorname{SUB}}^{\operatorname{SUP}} \operatorname{Ext1}[\operatorname{Par}] = 1.
                           390 \DeclareRobustCommand{\cmdtxtpar}[1]
                                      {\csdef{txtpar#1}%
                           391
                                           {\@ifstar%
                           392
                                               {\newtxtparsty*{\csname txtsty#1\endcsname}}%
                           393
                           394
                                               {\newtxtparsty{\csname txtsty#1\endcsname}}}}
```

```
\cmdtxtopar ... to do!
                             • \cmdtxtopar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                 \text{txtoparNewCmd}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Par}] = \text{Name}_{\text{SUB}}^{\text{SUP}}[\text{Par}]
                                \t \ [sub] [sup] [Par] = \ NAME_{SUB}^{SUP} [PAR]
                        395 \DeclareRobustCommand{\cmdtxtopar}[1]
                                  {\csdef{txtopar#1}%
                        396
                                      {\@ifstar%
                        397
                                          {\newtxtoparsty*{\csname txtsty#1\endcsname}}%
                        398
                        399
                                          {\newtxtoparsty{\csname txtsty#1\endcsname}}}}
 \cmdtxtall ... to do!
                             • \cmdtxtall{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                \verb|\txtNewCmd{Name}[sub][sup][Ext] = \verb|\Name|^{SUP}_{SUB}Ext|
                                \verb|\txtargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = \verb|\Name|_{SUB}^{SUP}Ext1(Arg)Ext2|
                                \verb|\txtoargNewCmd{Name}[sub][sup][Arg] = \verb|\Name|_{SUB}^{SUP}(Arg)
                                \verb|\txtoparNewCmd{Name}[sub][sup][Par] = \verb|\Name|_{SUB}^{SUP}[Par]|
                        400 \DeclareRobustCommand{\cmdtxtall}[1]
                                 {\cmdtxt{#1}\cmdtxtarg{#1}\cmdtxtoarg{#1}\cmdtxtpar{#1}\cmdtxtopar{#1}}
                        \usrtxt ... to do!
                             • \usrtxt{cmdName}{Suf}{}:
                                \c MameSuf = cmdName
                                \c MameSuf* = cmdName
                                \usrtxt{cmdName}{Suf}{arg};
                                \cmdNameSuf{Arg} = cmdName(Arg)
                                \cmdNameSuf*{Arg} = cmdName(Arg)
                                \usrtxt{cmdName}{Suf}{par};
                                \cmdNameSuf{Par} = cmdName[Par]
                                \cmdNameSuf*{Par} = cmdName[Par]
                             \usrtxt{cmdName}{Suf}{}[newName];
                                \colone{line} 
                                 \cmdNameSuf* = newName
                                \usrtxt{cmdName}{Suf}{arg}[newName];
                                \cmdNameSuf{Arg} = newName(Arg)
                                \c MameSuf*{Arg} = newName(Arg)
                                \usrtxt{cmdName}{Suf}{par}[newName];
                                \cmdNameSuf{Par} = newName[Par]
                                \c MameSuf*{Par} = newName[Par]
                        403 \DeclareRobustCommandx{\usrtxt}[4][4=]
                        404
                                 {\csdef{#1#2}{%
                        405
                                      \@ifstar%
                                          {\csname txt#3\endcsname*{\defval{#4}{#1}}}%
                        406
                                          {\csname txt#3\endcsname{\defval{#4}{#1}}}}
                        407
                        \newmth ... to do!
                              \bullet \ \texttt{Name}[\texttt{sub}][\texttt{sup}][\texttt{Ext}] = "\texttt{Name}^{sup}_{sub}Ext" \\
                             • \newmth[mathsf]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                              \bullet \label{eq:continuous_sub} \ [\operatorname{Sub}] \ [\operatorname{Sup}] \ [\operatorname{Ext}] = \ ``\operatorname{Name}^{sup}_{sub} Ext" 
                             • \newmth*[mathrm] {Name} [sub] [sup] [Ext] = "Name_{sub}^{sup}Ext"
                             \bullet \ \texttt{\ \ } [\mathtt{sub}] \ [\mathtt{sup}] \ [\mathtt{Ext}] = \ \texttt{\ \ \ } [\mathtt{Name}^{sup}_{sub} Ext"
                             • \newmth*[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
```

```
413 {\@ifstar{\@snewmth}{\@newmth}}
                                                                                                                                             414 \DeclareRobustCommandx{\Onewmth}[5][1=, 3=, 4=, 5=]
                                                                                                                                             415 {\ensuremath{\csname#1\endcsname{#2}\mthsubsup{#3}{#4}#5}}
                                                                                                                                             416 \DeclareRobustCommandx{\@snewmth}[5][1=, 3=, 4=, 5=]
                                                                                                                                            417 {\ensuremath{\csname#1\endcsname #2\mthsubsup{#3}{#4}#5}}
                            \newmthsty ... to do!
                                                                                                                                                                    • \newmthsty{mathrm}{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                                                                                                                                                      • \newmthsty{mathrm}[mathsf]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                                                                                                                                                    • \newmthsty{mathrm} [mathtt] {Name} [sub] [sup] [Ext] = "Name_{sub}^{sup}Ext"
                                                                                                                                                                       \bullet \verb| \newmthsty*{mathrm}{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext" 
                                                                                                                                                                      • \newmthsty*{mathrm} [mathsf] {Name} [sub] [sup] [Ext] = "Name_{sub}^{sup}Ext"
                                                                                                                                                                       \bullet \verb| \newmthsty*{mathrm}[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext" 
                                                                                                                                             418 \DeclareRobustCommand{\newmthsty}
                                                                                                                                                                                     {\@ifstar{\@snewmthsty}{\@newmthsty}}
                                                                                                                                             420 \DeclareRobustCommandx{\@newmthsty}[2][2=]
                                                                                                                                                                                     {\text{\newmth}[\defval{#2}{#1}]}
                                                                                                                                             422 \DeclareRobustCommandx{\@snewmthsty}[2][2=]
                                                                                                                                             423 {\newmth*[\defval{#2}{#1}]}
                            \newmtharg ... to do!
                                                                                                                                                                     \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ \  \  \  } \texttt{ \  \  } 
                                                                                                                                                                     \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ 
                                                                                                                                                                       \bullet \texttt{\newmtharg*[mathsf]{Name}[sub][sup][Ext1]{Arg^{Ex^{2}}}} [\texttt{Ext2}] = \texttt{``Name}^{sup}_{sub} Ext1(Arg^{Ex^{Ex}}) Ext2" = \texttt{``Name}^{sup}_{sub} Ext2" = \texttt{``Name}^{sup}_{sub} Ext1(Arg^{Ex^{Ex}}) Ext2" = \texttt{``Name}^{sup}_{sub} Ext2" = \texttt{``Name}^{sup}_{sub} Ext2" = \texttt{``Name}^{sub}_{sub} Ext2" = 
                                                                                                                                                                      • \newmtharg*[mathtt]{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}}[Ext2] = "Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2"
                                                                                                                                               424 \DeclareRobustCommand{\newmtharg}
                                                                                                                                                                                  {\@ifstar{\@snewmtharg}{\@newmtharg}}
                                                                                                                                             426 \DeclareRobustCommandx{\@newmtharg}[7][1=, 3=, 4=, 5=, 7=]
                                                                                                                                                                                              {\newmth[#1]{#2}[#3][#4][\argmid{#5\!\left(\}{#6}{\right)\arglef{\!}{#7}}]}
                                                                                                                                             428 \DeclareRobustCommandx{\@snewmtharg}[7][1=, 3=, 4=, 5=, 7=]
                                                                                                                                                                                     {\newmth[#1]{#2}[#3][#4][\argmid{#5(}{#6}{)#7}]}
\newmthargsty ... to do!
                                                                                                                                                                     \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ \  \  \  } \texttt{ \  \  } 
                                                                                                                                                                     \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ 
                                                                                                                                                                     \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ \  \  \  } \texttt{ \  \  } 
                                                                                                                                                                       \bullet \texttt{\newmthargsty*\{mathrm\}\{Name\}[sub][sup][Ext1]\{Arg^{\{Ex^{\{Ex\}\}\}}[Ext2]} = \texttt{``Name}^{sup}_{sub}Ext1(Arg^{Ex^{Ex}})Ext2" } \\
                                                                                                                                                                       \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ 
                                                                                                                                                                       \bullet \texttt{ \  \  } \texttt{ \  \  \  } \texttt{ 
                                                                                                                                             430 \verb|\DeclareRobustCommand{\newmthargsty}|
                                                                                                                                                                               {\@ifstar{\@snewmthargsty}{\@newmthargsty}}
                                                                                                                                             432 \DeclareRobustCommandx{\@newmthargsty}[2][2=]
                                                                                                                                             433 {\newmtharg[\defval{#2}{#1}]}
                                                                                                                                             434 \DeclareRobustCommandx{\@snewmthargsty}[2][2=]
                                                                                                                                                                                     {\newmtharg*[\defval{#2}{#1}]}
                   \newmthoarg ... to do!
                                                                                                                                                                      • \newmthoarg[mathrm] {Name} [sub] [sup] [Arg^{Ex^{Ex}}] = "Name_{sub}^{sup} (Arg^{Ex^{Ex}})"
```

412 \DeclareRobustCommand{\newmth}

```
• \newmthoarg[mathsf]{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name_{sub}^{sup} (Arg^{Ex^{Ex}})"
```

 $\bullet \ \texttt{\ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ } \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ } \ \ \ \ } \ \texttt{\ \ \ \ \ \ \ \ } \ \texttt{\ \ \ \ \ } \ \texttt{\ \ \ \ } \ \texttt{\ \ \ \ } \ \$ 

 $\bullet \texttt{ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ }$ 

 $\bullet \ \texttt{\newmthoarg*[mathsf]{Name}[sub][sup][Arg^{Ex^{}}]} = \texttt{\normalfoat}(Arg^{Ex^{Ex}}) \texttt{\no$ 

 $\bullet \verb| \newmthoarg*[mathtt]{Name}[sub][sup][Arg^{\{Ex^{\{Ex\}}\}}] = "Name_{sub}^{sup}(Arg^{Ex^{Ex}})"$ 

```
436 \DeclareRobustCommand{\newmthoarg} 

437 {\@ifstar{\@snewmthoarg}{\@newmthoarg}} 

438 \DeclareRobustCommandx{\@newmthoarg}[5][1=, 3=, 4=, 5=] 

439 {\newmtharg[#1]{#2}[#3][#4][]{#5}[]} 

440 \DeclareRobustCommandx{\@snewmthoarg}[5][1=, 3=, 4=, 5=] 

441 {\newmtharg*[#1]{#2}[#3][#4][]{#5}[]}
```

#### \newmthoargsty ... to do!

- \newmthoargsty{mathrm}{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name\_{sub}^{sup} (Arg^{E\_x^{Ex}})"
- $\bullet \verb| \name| sup| [Arg^{Ex^{Ex}}] = \verb| "Name| sup| [Arg^{Ex^{Ex}}] = \verb| "Name| sup| (Arg^{Ex^{Ex}}) = \verb| "Name| sup| (Arg^{Ex}) = \verb| "Name| sup| (A$
- \newmthoargsty\*{mathrm}{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name\_{sub}^{sup}(Arg^{Ex^{Ex}})"
- $\bullet \texttt{ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ }$

```
442 \DeclareRobustCommand{\newmthoargsty}
```

- 443 {\@ifstar{\@snewmthoargsty}{\@newmthoargsty}}
- 444 \DeclareRobustCommandx{\@newmthoargsty}[2][2=]
- 445 {\newmthoarg[\defval{#2}{#1}]}
- 446 \DeclareRobustCommandx{\@snewmthoargsty}[2][2=]
- $447 \quad {\texttt{\newmthoarg*[\defval{#2}{#1}]}}$

#### \newmthpar ... to do!

- \newmthpar[mathrm] {Name} [sub] [sup] [Ext1] {Par^{Ex^{Ex}}} [Ext2] = "Name\_{sub}^{sup} Ext1  $\left[ Par^{Ex^{Ex}} \right] Ext2$ "
- $\bullet \ \texttt{\newmthpar[mathsf]{Name}[sub][sub][Ext1]{Par^{Ex^{Ex}}}} [Ext2] = \texttt{\normalfont{Name}} \\ ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \\ ext2 \\ ext2 \\ ext2 \\ ext2 \\ ext3 \\ ext4 \\ ext4 \\ ext2 \\ ext4 \\$
- \newmthpar\*[mathrm] {Name} [sub] [sup] [Ext1] { $Par^{Ex^{Ex}}$ } [Ext2] = "Name  $_{sub}^{sup} Ext1[Par^{Ex^{Ex}}]Ext2$ "
- $\bullet \ \texttt{Name} * [\texttt{mathsf}] * [\texttt{Name} * [\texttt{sub}] * [\texttt{Sup}] * [\texttt{Ext1}] * [\texttt{Par} * (\texttt{Ex}) * ] * [\texttt{Ext2}] = "\texttt{Name} * (\texttt{Sup} * Ext1 [Par^{Ex^{Ex}}] * [\texttt{Ext2}] = "\texttt{Name} * (\texttt{Ex}) * (\texttt{Ex})$
- \newmthpar\*[mathtt]{Name}[sub][sup][Ext1]{ $Par^{Ex^{Ex}}$ }[Ext2] = "Name  $_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$ "

```
448 \DeclareRobustCommand{\newmthpar}
```

- 449 {\@ifstar{\@snewmthpar}{\@newmthpar}}
- 450 \DeclareRobustCommandx{\@newmthpar}[7][1=, 3=, 4=, 5=, 7=]
- 451 {\newmth[#1]{#2}[#3][#4][\argmid{#5\!\left[}{#6}{\right]\arglef{\!}{#7}}]}
- 452 \DeclareRobustCommandx{\@snewmthpar}[7][1=, 3=, 4=, 5=, 7=]
- 453 {\newmth[#1]{#2}[#3][#4][\argmid{#5[}{#6}{]#7}]}

### \newmthparsty ... to do!

- $\bullet \mathtt{Name}_{sub}^{sup} [\mathtt{Sub}] [\mathtt{Sup}] [\mathtt{Ext1}] \{ \mathtt{Par}^{\{\mathtt{Ex}^{\}}\}} [\mathtt{Ext2}] = \mathtt{``Name}_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \mathtt{'`} \}$
- $\bullet \texttt{ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ }$
- $\bullet \verb| \newmthparsty{mathrm}[mathtt]{Name}[sub][sup][Ext1]{Par^{Ex^{-}}{Ex}}] [Ext2] = "Name_{sub}^{sup}Ext1\Big[Par^{Ex^{-Ex}}\Big] Ext2" + (1-c)^{-1} [Par^{-1}] [Par^{-$
- $\bullet \mathtt{Name}_{sub}[\mathtt{Sub}][\mathtt{Sup}][\mathtt{Ext1}] \{ \mathtt{Par}^{\{\mathtt{Ex}^{\}}\}}[\mathtt{Ext2}] = \mathtt{"Name}_{sub}^{sup} Ext1[Par^{Ex}^{Ex}] Ext2 \mathtt{"Name}_{sub}^{\{\mathtt{Ex}^{+}\}}[\mathtt{Ext2}] = \mathtt{"Name}_{sub}^{\{\mathtt{Ex}^{+}\}}[\mathtt{Ext2}]$
- \newmthparsty\*{mathrm}[mathtt]{Name}[sub][sup][Ext1]{ $Par^{Ex^{Ex}}$ }[Ext2] = "Name $_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$ "

```
454 \DeclareRobustCommand{\newmthparsty}
                                                                       455 {\@ifstar{\@snewmthparsty}{\@newmthparsty}}
                                                                       456 \DeclareRobustCommandx{\Onewmthparsty}[2][2=]
                                                                       457 {\newmthpar[\defval{#2}{#1}]}
                                                                       458 \DeclareRobustCommandx{\@snewmthparsty}[2][2=]
                                                                                           {\newmthpar*[\defval{#2}{#1}]}
             \newmthopar ... to do!
                                                                                 • \newmthopar[mathrm]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                                                                  \bullet \ \texttt{\ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \  }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ }} \ \texttt{\ \ }} \ \texttt{\ }} \ \texttt{\ \ }} \ \texttt{\  } \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt{\ \ } \texttt{\ \ }} \ \texttt
                                                                                  \bullet \verb| \newmthopar*[mathrm]{Name}[sub][sup][Par^{Ex^{*}}] = "Name^{sup}_{sub}[Par^{Ex^{Ex}}]" 
                                                                                  • \newmthopar*[mathsf]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                                                                  • \newmthopar*[mathtt]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                                                       460 \DeclareRobustCommand{\newmthopar}
                                                                                              {\@ifstar{\@snewmthopar}{\@newmthopar}}
                                                                       462 \DeclareRobustCommandx{\@newmthopar}[5][1=, 3=, 4=, 5=]
                                                                                              {\newmthpar[#1]{#2}[#3][#4][]{#5}[]}
                                                                       464 \DeclareRobustCommandx{\@snewmthopar}[5][1=, 3=, 4=, 5=]
                                                                                              {\newmthpar*[#1]{#2}[#3][#4][]{#5}[]}
\newmthoparsty ... to do!
                                                                                  • \newmthoparsty{mathrm}{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                                                                  \bullet \ \texttt{\ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \  \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \  \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ } \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ }} \ \texttt{\ \ \ } \ \texttt{\ \ \ } \ \texttt{\ \ \ }} \ \texttt{\ \ \ } \ \texttt{
                                                                                  \bullet \verb| \normal| without the limit of the li
                                                                                  • \newmthoparsty*{mathrm}{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{cub}^{sup}[Par^{Ex^{Ex}}]"
                                                                                   \bullet \verb| \newmthoparsty*{mathrm}[mathsf]{Name}[sub][sup][Par^{Ex^{Ex}}]] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]" 
                                                                                   \bullet \verb| \newmthoparsty*{mathrm}[mathtt]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]" 
                                                                       466 \DeclareRobustCommand{\newmthoparsty}
                                                                                          {\@ifstar{\@snewmthoparsty}{\@newmthoparsty}}
                                                                       468 \DeclareRobustCommandx{\@newmthoparsty}[2][2=]
                                                                                             {\newmthopar[\defval{#2}{#1}]}
                                                                       470 \DeclareRobustCommandx{\@snewmthoparsty}[2][2=]
                                                                                              {\newmthopar*[\defval{#2}{#1}]}
                 \mthsubsup ... to do!
                                                                      472 \DeclareRobustCommand{\mthsubsup}[2]
                                                                                         {\empchk{#1}{_{#1}}\empchk{#2}{^{#2}}}
                                                                       \mth ... to do!
                                                                                 • \mathbb{Sup}[Sup][Ext] = "Name^{sup}_{sub}Ext"
                                                                                  • \mathbf{Name}_{sub}^{sup}[\mathbf{Ext}] = \mathbf{Name}_{sub}^{sup}Ext
                                                                                  • \mathcal{E}_{sub}[Sub][Sup][Ext] = \mathcal{E}_{sub}[Sub][Sup][Ext]
                                                                                  • \mth*{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                                                                  • \mth*[mathbf] {Name} [sub] [sup] [Ext] = "Name_{sub}^{sup}Ext"
                                                                                  • \mth*[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                                                       475 \DeclareRobustCommand{\mth}
                                                                                      {\@ifstar{\newmthsty*{\mthsty}}{\newmthsty{\mthsty}}}
                                \mtharg ... to do!
```

```
• \mtharg[mathbf] {Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}}} [Ext2] = "Name_{sub}^{sup} Ext1 (Arg^{Ex^{Ex}}) Ext2"
                                          • \mtharg[mathtt] {Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}}} [Ext2] = "Name_{sub}^{sup} Ext1 (Arg^{Ex^{Ex}}) Ext2"
                                          • \mtharg*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = "Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2"
                                          \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\  } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }
                                          • \mtharg*[mathtt] {Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}}} [Ext2] = "Name _{sub}^{sup} Ext1(Arg^{Ex^{Ex}}) Ext2"
                                  477 \DeclareRobustCommand{\mtharg}
                                                  {\@ifstar{\newmthargsty*{\mthsty}}}{\newmthargsty{\mthsty}}}
\mthoarg ... to do!
                                         • \mthoarg{Name} [sub] [sup] [Arg^{Ex^{Ex}}] = "Name_{sub}^{sup} (Arg^{Ex^{Ex}})"
                                          • \mthoarg[mathbf] {Name} [sub] [sup] [Arg^{Ex^{Ex}}] = "Name_{sub}^{sup} (Arg^{Ex^{Ex}})"
                                          • \mthoarg[mathtt]{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name_{sub}^{sup}(Arg^{Ex^{Ex}})"
                                          • \mthoarg*{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name_{cub}^{sup}(Arq^{Ex^{Ex}})"
                                          • \mthoarg*[mathbf]{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name_{sub}^{sup}(Arg^{Ex^{Ex}})"
                                          • \mthoarg*[mathtt]{Name}[sub][sup][Arg^{Ex^{Ex}}] = "Name_{sub}^{sup}(Arg^{Ex^{Ex}})"
                                  479 \DeclareRobustCommand{\mthoarg}
                                                    {\@ifstar{\newmthoargsty*{\mthsty}}}{\newmthoargsty{\mthsty}}}
    \mthpar ... to do!
                                          • \mthpar{Name} [sub] [sup] [Ext1] {Par^{Ex^{Ex}}} [Ext2] = "Name_{sub}^{sup} Ext1 [Par^{Ex^{Ex}}] Ext2"
                                           \bullet \texttt{ \normalfont{Mame}[sub][sup][Ext1]{Par^{Ex^{\{Ex\}}\}}[Ext2]} = "Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2" 
                                          • \mthpar*[mathtt] {Name} [sub] [sup] [Ext1] {Par^{Ex^{2}}} [Ext2] = "Name _{sub}^{sup} Ext1[Par^{Ex^{Ex}}] Ext2"
                                  481 \DeclareRobustCommand{\mthpar}
                                                  {\@ifstar{\newmthparsty*{\mthsty}}}{\newmthparsty{\mthsty}}}
\mthopar ... to do!
                                          • \mthopar{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                          • \mthopar[mathbf] {Name} [sub] [sup] [Par^{Ex^{Ex}}] = "Name_{sub}^{sup} | Par^{Ex^{Ex}}|"
                                          \bullet \  \, \texttt{\bar{Ex^{Ex}}} = \texttt{\bar{Name}} \\ [sub] \\ [sub] \\ [par^{\{Ex^{\{Ex\}}\}}] = \texttt{\bar{Name}} \\ [sub] \\ [par^{Ex^{Ex}}] \\ [par^{Ex}] \\ [par^{Ex^{Ex}}] \\ [par^{Ex}] \\ [par^{Ex}
                                          • \mthopar*{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                          • \mthopar*[mathbf]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name_{sub}^{sup}[Par^{Ex^{Ex}}]"
                                          • \mthopar*[mathtt]{Name}[sub][sup][Par^{Ex^{Ex}}] = "Name _{sub}^{sup}[Par^{Ex^{Ex}}]"
                                  483 \DeclareRobustCommand{\mthopar}
                                                   {\@ifstar{\newmthoparsty*{\mthsty}}}{\newmthoparsty{\mthsty}}}
    \mthsty ... to do!
                                  485 \newcommand{\mthsty}
    \cmdmth ... to do!
```

• \mtharg{Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} [Ext2] = "Name\_{sub}^{sup} Ext1 (Arg^{Ex^{Ex}}) Ext2" = "Name\_{sub}^{sub} Ext1 (Arg^{Ex}) Ext2" = "Name\_{sub}^{sub} Ext1 (Arg^{Ex

```
• \cmdmth{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                                  \mbox{\tt Name} [	ext{\tt Sub}] [	ext{\tt Sup}] [	ext{\tt Ext}] = \mbox{\tt Name}_{sub}^{sup} Ext
                                                                                                                                  \verb|\mbox| \verb| Mame| = \verb| Sub| = \verb| Name| = \verb| Name| = \verb| Sub| = \verb| Name| = \verb| Sub| = \verb| Name| = Name| =
                                                                                                488 \DeclareRobustCommand{\cmdmth}[1]
                                                                                                                             {\csdef{mth#1}%
                                                                                                                                                        {\@ifstar{\newmthsty*{mthsty#1}}}{\newmthsty{mthsty#1}}}}
                                                                                                490
       \cmdmtharg ... to do!
                                                                                                                  • \cmdmtharg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                                 \verb|\mathargNewCmd{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}|Ext2] = \verb|\mathargNewCmd{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}|Ext2|
                                                                                                                               \verb| That is a constant of the constant of the
                                                                                                 491 \DeclareRobustCommand{\cmdmtharg}[1]
                                                                                                                                       {\csdef{mtharg#1}%
                                                                                                                                                        {\@ifstar{\newmthargsty*{mthsty#1}}}{\newmthargsty{mthsty#1}}}
                                                                                                 493
\cmdmthoarg ... to do!
                                                                                                                  • \cmdmthoarg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                               \verb|\mbox| \verb|\mbox| | [Sup] [Arg^{Ex^{*}}] = \verb|\mbox| | [Arg^{E_x^{Ex}}] = \verb|\mbox| | [Arg^{E_x^
                                                                                                                               \verb|\mbox| \mbox{ $\mathbb{E}^{sup}$ [Sup] [Arg^{Ex^{Ex}}] = \mathbb{N}$ and $\sup_{sub} (Arg^{Ex^{Ex}})$ }
                                                                                                494 \DeclareRobustCommand{\cmdmthoarg}[1]
                                                                                                                               {\csdef{mthoarg#1}%
                                                                                                496
                                                                                                                                                        {\@ifstar{\newmthoargsty*{mthsty#1}}}{\newmthoargsty{mthsty#1}}}}
       \cmdmthpar ... to do!
                                                                                                                  • \cmdmthpar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                               \verb| mthparNewCmd*{Name}[sub][sup][Ext1]{Par^{Ex^{-}}{Ex}}] Ext2] = \verb| Name| sub| Ext1[Par^{Ex^{-}}] Ext2[Par^{Ex^{-}}] Ext2[Par^{Ex^{-}}
                                                                                                497 \DeclareRobustCommand{\cmdmthpar}[1]
                                                                                                                                  {\csdef{mthpar#1}%
                                                                                                                                                        {\@ifstar{\newmthparsty*{mthsty#1}}}{\newmthparsty{mthsty#1}}}
                                                                                                499
\cmdmthopar ... to do!
                                                                                                                   • \cmdmthopar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                               500 \DeclareRobustCommand{\cmdmthopar}[1]
                                                                                                                                    {\csdef{mthopar#1}%
                                                                                                                                                      {\@ifstar{\newmthoparsty*{mthsty#1}}}{\newmthoparsty{mthsty#1}}}}
                                                                                                502
       \cmdmthall ... to do!
                                                                                                                   • \cmdmthall{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                                  \verb|\mbox| \verb| Sub| [sup] [Ext] = \verb|\mbox| \verb| Same | sub| |
                                                                                                                               \mathsf{N} = 
                                                                                                                               \verb| mthparNewCmd{Name}[sub][sup][Ext1]{Par^{Ex^{}}}[Ext2] = \verb| Name| | sub| Ext1 | Par^{Ex^{Ex}} | Ext2| = | sub| Ext1 | Par^{Ex^{Ex}} | Ext2| = | sub| Ext2| | 
                                                                                                                               503 \DeclareRobustCommand{\cmdmthall}[1]
                                                                                                                                 {\cmdmth{#1}\cmdmtharg{#1}\cmdmthoarg{#1}\cmdmthpar{#1}\cmdmthopar{#1}}
```

```
• \usrmth{cmdName}{Suf}{};
                                                                                        \verb|\cmdNameSuf| = cmdName|
                                                                                         \column{4}{c} {\tt mdNameSuf*} = cmdName
                                                                                         \usrmth{cmdName}{Suf}{arg};
                                                                                        \label{eq:cmdName} $$\operatorname{Arg}^{Ex^{Ex}}$ = cmdName \left(Arg^{Ex^{Ex}}\right)$
                                                                                        \verb|\cmdNameSuf*{Arg^{Ex^{Ex}}}| = cmdName(Arg^{Ex^{Ex}})
                                                                                        \usrmth{cmdName}{Suf}{par};
                                                                                        \verb|\cmdNameSuf{Par^{Ex^{Ex}}}| = cmdName \Big[ Par^{Ex^{Ex}} \Big]
                                                                                        \verb|\cmdNameSuf*{Par^{Ex^{Ex}}}| = cmdName[Par^{Ex^{Ex}}]|
                                                                                  \usrmth{cmdName}{Suf}{}[newName];
                                                                                         \colonerright 
                                                                                         \c NameSuf* = newName
                                                                                        \usrmth{cmdName}{Suf}{arg}[newName];
                                                                                        \label{eq:cmdName} $$ \operatorname{Lex}{ = newName \left( Arg^{Ex^{Ex}} \right) } = newName \left( Arg^{Ex^{Ex}} \right) $$
                                                                                        \label{eq:cmdName} $$\operatorname{Lx^{Ex}}$ = newName(Arg^{Ex^{Ex}})$
                                                                                        \usrmth{cmdName}{Suf}{par}[newName];
                                                                                        \verb|\cmdNameSuf{Par^{Ex^{Ex}}}| = newName \Big[ Par^{Ex^{Ex}} \Big]
                                                                                        \verb|\cmdNameSuf*{Par^{Ex^{Ex}}}| = newName[Par^{Ex^{Ex}}]|
                                                                     506 \DeclareRobustCommandx{\usrmth}[4][4=]
                                                                                           {\csdef{#1#2}{\%}}
                                                                     508
                                                                                                      \@ifstar%
                                                                                                               {\csname mth#3\endcsname*{\defval{#4}{#1}}}%
                                                                    509
                                                                                                               {\tt \{\csname mth \#3 \end csname \{\def val \{ \#4 \} \{ \#1 \} \} \} \}}
                                                                    510
                                                                    \usrmthlatlow ... to do!
                                                                    512 \DeclareRobustCommandx{\usrmthlatlow}[4][4=]
                                                                                        {\usrmth{#1}{#2}{#3}[#4]\seqoflatlow{#1#2}{mth#3}}
\usrmthlatupp ... to do!
                                                                    514 \verb|\DeclareRobustCommandx{\usrmthlatupp}[4][4=]
                                                                    515 \{ \text{1} \{ \text{mth} \{ \text{#1} \} \{ \text{#3} [ \text{#4} ] \ \text{seqoflatupp} \{ \text{#1} \} \} \}
\usrmthlatlet ... to do!
                                                                     516 \DeclareRobustCommandx{\usrmthlatlet}[4][4=]
                                                                    517 {\usrmth{#1}{#2}{#3}[#4]\seqoflatlet{#1#2}{mth#3}}
\usrmthgrklow ... to do!
                                                                     518 \DeclareRobustCommandx{\usrmthgrklow}[4][4=]
                                                                    519 {\usrmth{#1}{#2}{#3}[#4]\seqofgrklow{#1#2}{mth#3}}
\usrmthgrkupp ... to do!
                                                                    520 \DeclareRobustCommandx{\usrmthgrkupp}[4][4=]
                                                                                     {\ \{\ x\} = \{
                                                                    521
\usrmthgrklet ... to do!
                                                                     522 \DeclareRobustCommandx{\usrmthgrklet}[4][4=]
                                                                                       {\usrmth{#1}{#2}{#3}[#4]\seqofgrklet{#1#2}{mth#3}}
              \usrmthlow ... to do!
                                                                    524 \DeclareRobustCommandx{\usrmthlow}[4][4=]
                                                                                         {\usrmth{#1}{#2}{#3}[#4]\seqoflow{#1#2}{mth#3}}
              \undergray \undergra
                                                                    526 \DeclareRobustCommandx{\usrmthupp}[4][4=]
                                                                                       {\usrmth{#1}{#2}{#3}[#4]\seqofupp{#1#2}{mth#3}}
```

\usrmth ... to do!

```
\usrmthlet ... to do!
                              528 \DeclareRobustCommandx{\usrmthlet}[4][4=]
                              529 \{ \text{wsrmth} \{ \#1 \} \{ \#3 \} [ \#4 ] \ seqoflet \{ \#1 \#2 \} \{ mth \#3 \} \}
                              534 \iftxtgen@
             \txtdef ... to do!
                                   ullet \txtdef{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                   ullet \txtargdef{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2
                                    \qquad \qquad \texttt{`txtpardef\{Name\}[sub][sup][Ext1]\{Par\}[Ext2]} = Name_{sub}^{sup}Ext1[Par]Ext2] 
                               535 %% Style for Definitions
                              536 \verb|\cmdtxtall{def}\\| \text{\cmand{\txtstydef}}| \text{\cmalfont\bfseries}| 
       \cmdtxtdef ... to do!
                                   • \cmdtxtdef{cmdName};
                                      \colon colon col
                                   • \cmdtxtdef{cmdName}[newName];
                                      \verb|\cmdName[sub][sub][ext]| = newName_{sub}^{sub}ext
                               537 \DeclareRobustCommandx{\cmdtxtdef}[2][2=]
                              538 {\usrtxt{#1}{}{def}[#2]}
 \verb|\cmdtxtargdef| \dots to do!
                                   • \cmdtxtargdef{cmdName};
                                      \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                   • \cmdtxtargdef{cmdName}[newName];
                                      \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = newName_{sub}^{sub}ext1(arg)ext2
                              539 \DeclareRobustCommandx{\cmdtxtargdef}[2][2=]
                              540 {\usrtxt{#1}{}{argdef}[#2]}
\cmdtxtoargdef ... to do!
                                   • \cmdtxtoargdef{cmdName};
                                      \colon = cmdName[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                   \cmdtxtoargdef{cmdName}[newName];
                                      \colon = [sub][sub][arg] = newName_{sub}^{sub}(arg)
                              541 \DeclareRobustCommandx{\cmdtxtoargdef}[2][2=]
                              542 \quad \{\texttt{\usrtxt} \#1\} \{\texttt{\pargdef} \#2] \}
 \cmdtxtpardef ... to do!
                                   \cmdtxtpardef{cmdName};
                                      \verb|\cmdName[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                                   \cmdtxtpardef{cmdName}[newName];
                                      \verb|\cmdName[sub][sub][ext1]{par}[ext2] = newName_{sub}^{sub}ext1[par]ext2
                               543 \DeclareRobustCommandx{\cmdtxtpardef}[2][2=]
                                      {\usrtxt{#1}{}{pardef}[#2]}
\cmdtxtopardef ... to do!
                                   \cmdtxtopardef{cmdName};
                                      \cmdName[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                   \cmdtxtopardef{cmdName}[newName];
                                      \verb|\cmdName[sub][sub][par]| = newName_{sub}^{sub}[par]|
                              545 \DeclareRobustCommandx{\cmdtxtopardef}[2][2=]
                              546 {\usrtxt{#1}{}{opardef}[#2]}
             \txtabr ... to do!
                     . . .
```

```
ullet \txtabr{Name} [sub] [sup] [Ext] = Name_{
m sub}^{
m sup} Ext
                                        • \txtargabr{Name} [sub] [sup] [Ext1] {Arg} [Ext2] = Name_{\mathrm{sub}}^{\mathrm{sup}} Ext1(Arg) Ext2
                                       • \txtparabr{Name}[sub][sup][Ext1]\{Par\}[Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                                  547 %% Style for Abbreviations
                                  548 \cmdtxtall{abr}\newcommand{\txtstyabr}{\em}
        \cmdtxtabr ... to do!
                                       • \cmdtxtabr{cmdName};
                                           \colon colon col
                                        \cmdtxtabr{cmdName} [newName];
                                           \verb|\cmdName[sub][sub][ext]| = newName_{\rm sub}^{\rm sub}ext
                                  549 \DeclareRobustCommandx{\cmdtxtabr}[2][2=]
                                          {\usrtxt{#1}{}{abr}[#2]}
  \cmdtxtargabr ... to do!
                                       • \cmdtxtargabr{cmdName};
                                           \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                        \cmdtxtargabr{cmdName} [newName];
                                           \cmdName[sub][sub][ext1]{arg}[ext2] = newName_{sub}^{sub}ext1(arg)ext2
                                  551 \DeclareRobustCommandx{\cmdtxtargabr}[2][2=]
                                  552 {\usrtxt{#1}{}{argabr}[#2]}
\cmdtxtoargabr ... to do!
                                       • \cmdtxtoargabr{cmdName};
                                           \verb|\cmdName[sub][sub][arg]| = cmdName_{\rm sub}^{\rm sub}(arg)
                                        \cmdtxtoargabr{cmdName} [newName];
                                           \colon = newName[sub][sub][arg] = newName[sub](arg)
                                  553 \DeclareRobustCommandx{\cmdtxtoargabr}[2][2=]
                                  554 {\usrtxt{#1}{}{oargabr}[#2]}
  \cmdtxtparabr ... to do!
                                       • \cmdtxtparabr{cmdName};
                                           \cmdName[sub][sub][ext1][par][ext2] = cmdName[sub]ext1[par]ext2
                                       • \cmdtxtparabr{cmdName} [newName];
                                           \colon = [sub][sub][ext1][par][ext2] = newName_{sub}^{sub}ext1[par]ext2]
                                  555 \DeclareRobustCommandx{\cmdtxtparabr}[2][2=]
                                  556 {\usrtxt{#1}{}{parabr}[#2]}
\cmdtxtoparabr ... to do!
                                       • \cmdtxtoparabr{cmdName};
                                           \cmdName[sub][sub][par] = cmdName_{\text{sub}}^{\text{sub}}/par
                                        \cmdtxtoparabr{cmdName}[newName];
                                           \verb|\cmdName[sub][sub][par]| = newName_{\rm sub}^{\rm sub}/par|
                                  557 \DeclareRobustCommandx{\cmdtxtoparabr}[2][2=]
                                          {\usrtxt{#1}{}{oparabr}[#2]}
                                  \txtname ... to do!
                                       • \text{txtname}\{\text{Name}\}[\text{sub}][\text{Ext}] = \text{Name}^{\text{SUP}}_{\text{SUB}}Ext
                                       • \txtargname{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{SUB}^{SUP}Ext1(Arg)Ext2
                                        \bullet \ \texttt{\txtparname}\{\texttt{Name}\}[\texttt{sub}][\texttt{sup}][\texttt{Ext1}]\{\texttt{Par}\}[\texttt{Ext2}] = NAME^{SUP}_{SUB}EXT1[PAR]EXT2 
                                  560 %% Style for Names
                                  561 \cmdtxtall{name}\newcommand{\txtstyname}{\normalfont\mdseries\scshape\sffamily}
      \cmdtxtname ... to do!
```

```
\cmdtxtname{cmdName};
                                                                 \cmdName[sub][sub][ext] = CMDNAME_{SUB}^{SUB}EXT
                                                            • \cmdtxtname{cmdName}[newName];
                                                                 562 \DeclareRobustCommandx{\cmdtxtname}[2][2=]
                                                    563 {\usrtxt{#1}{}{name}[#2]}
   \cmdtxtargname ... to do!
                                                            \cmdtxtargname{cmdName};
                                                                 \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = CMDNAME_{SUB}^{SUB}EXT1(ARG)EXT2
                                                            • \cmdtxtargname{cmdName}[newName];
                                                                 564 \verb|\DeclareRobustCommandx{\cmdtxtargname}[2][2=]
                                                                {\usrtxt{#1}{}{argname}[#2]}
\cmdtxtoargname ... to do!
                                                            • \cmdtxtoargname{cmdName};
                                                                 \colon = CMDNAME_{SUB}^{SUB}(ARG)
                                                            • \cmdtxtoargname{cmdName}[newName];
                                                                 \colon 
                                                    566 \DeclareRobustCommandx{\cmdtxtoargname}[2][2=]
                                                                 {\usrtxt{#1}{}{oargname}[#2]}
   \cmdtxtparname ... to do!
                                                            \cmdtxtparname{cmdName};
                                                                 \verb|\cmdName[sub][sub][ext1]{par}[ext2] = CMDNAME_{SUB}^{SUB}EXT1[PAR]EXT2|
                                                            • \cmdtxtparname{cmdName}[newName];
                                                                 \verb|\cmdName[sub][sub][ext1]{par}[ext2] = \verb|\newName[sub][ext1][PAR] = NEWNAME[sub][ext1][PAR] = NEWNAME[sub][ext1][PAR] = NEWNAME[sub][ext1][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ex
                                                    568 \DeclareRobustCommandx{\cmdtxtparname}[2][2=]
                                                                 {\usrtxt{#1}{}{parname}[#2]}
\cmdtxtoparname ... to do!
                                                            \cmdtxtoparname{cmdName};
                                                                 \label{eq:cmdName} $$ \operatorname{[sub][par]} = \operatorname{CMDNAME}^{\operatorname{SUB}}_{\operatorname{SUB}}[\operatorname{PAR}] $$
                                                            • \cmdtxtoparname{cmdName}[newName];
                                                                 \cmdName[sub][sub][par] = NEWNAME_{SUB}^{SUB}[PAR]
                                                    570 \DeclareRobustCommandx{\cmdtxtoparname}[2][2=]
                                                    571 {\usrtxt{#1}{}{oparname}[#2]}
                         \txtcom ... to do!
                                                            • \t Name [sub] [sup] [Ext] = Name_{Sub}^{SUP} Ext
                                                            • \txtargcom{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAME_{SUB}^{SUP}EXT1(ARG)EXT2
                                                            • \text{txtparcom{Name}[sub][sup][Ext1]{Par}[Ext2]} = \text{Name}_{SUB}^{SUP} \text{Ext1}[Par] \text{Ext2}
                                                    572 %% Style for Complexities
                                                    573 \cmdtxtall{com}\newcommand{\txtstycom}{\normalfont\mdseries\scshape\rmfamily}
               \cmdtxtcom ... to do!
                                                            • \cmdtxtcom{cmdName};
                                                                 \cmdName[sub][sub][ext] = CMDNAME_{SUB}^{SUB}EXT
                                                            • \cmdtxtcom{cmdName}[newName];
                                                                 574 \DeclareRobustCommandx{\cmdtxtcom}[2][2=]
                                                    575 {\usrtxt{#1}{}{com}[#2]}
      \cmdtxtargcom ... to do!
                                                            \cmdtxtargcom{cmdName};
                                                                 \label{lem:cmdName} $$ \operatorname{[sub][sub][ext1]}_{arg}[ext2] = \operatorname{CMDNAME}_{SUB}^{SUB} \operatorname{EXT1}(\operatorname{ARG}) \operatorname{EXT2} $$
```

```
\cmdtxtargcom{cmdName}[newName];
                                                                                 \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = \verb|\newName|_{SUB}^{SUB} EXT1(ARG) EXT2
                                                                576 \DeclareRobustCommandx{\cmdtxtargcom}[2][2=]
                                                                                 {\usrtxt{#1}{}{argcom}[#2]}
\cmdtxtoargcom ... to do!
                                                                          • \cmdtxtoargcom{cmdName};
                                                                                 \colon = CMDNAME_{SUB}^{SUB}(ARG)
                                                                          • \cmdtxtoargcom{cmdName}[newName];
                                                                                 \verb|\cmdName[sub][sub][arg]| = NEWNAME^{SUB}_{SUB}(ARG)
                                                                 578 \DeclareRobustCommandx{\cmdtxtoargcom}[2][2=]
                                                                                 {\usrtxt{#1}{}{oargcom}[#2]}
   \cmdtxtparcom ... to do!
                                                                          • \cmdtxtparcom{cmdName};
                                                                                 \verb|\cmdName[sub][sub][ext1]{par}[ext2] = CMDNAME_{SUB}^{SUB}EXT1[PAR]EXT2|
                                                                           • \cmdtxtparcom{cmdName} [newName];
                                                                                 \verb|\cmdName[sub][sub][ext1]{par}[ext2] = \verb|\newName[sub][sub][ext1]{par}[ext2]
                                                                 580 \DeclareRobustCommandx{\cmdtxtparcom}[2][2=]
                                                                581 {\usrtxt{#1}{}{parcom}[#2]}
\cmdtxtoparcom ... to do!
                                                                          • \cmdtxtoparcom{cmdName};
                                                                                 \colon = CMDNAME_{SUB}^{SUB}[PAR]
                                                                           \cmdtxtoparcom{cmdName}[newName];
                                                                                 \cmdName[sub][sub][par] = NEWNAME_{SUB}^{SUB}[PAR]
                                                                 582 \DeclareRobustCommandx{\cmdtxtoparcom}[2][2=]
                                                                                {\usrtxt{#1}{}{oparcom}[#2]}
                                                                584 \fi
                                                                589 \ifmthgen@
                        \mthname ... to do!
                                                                          ullet \mthname{NAME}[sub][sup][Ext] = \mathcal{NAME}^{sup}_{sub}Ext
                                                                           \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\  }} \texttt{\ \ }} \texttt{\  } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt
                                                                            \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ 
                                                                           590 %% Style for Names
                                                                591 \cmdmthall{name}\newcommand{\mthstyname}{\mathcal}
                                             \dots \mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}
                                                                592 \seqoflatupp{Name}{mthname}
            \cmdmthname ... to do!
                                                                          • \cmdmthname{CMDNAME};
                                                                                 \CMDNAMEName[sub][sub][ext] = \mathcal{CMDNAME}_{sub}^{sub}ext
                                                                           • \cmdmthname{cmdName}[NEWNAME];
                                                                                 \verb|\cmdNameName[sub][sub][ext]| = \mathcal{NEWNAME}^{sub}_{sub}ext
                                                                 593 \DeclareRobustCommandx{\cmdmthname}[2][2=]
                                                                594 {\usrmth{#1}{Name}{name}[#2]}
```

```
\cmdmthargname ... to do!
                                                    • \cmdmthargname{CMDNAME};
                                                         \CMDNAMEName[sub][sub][ext1]{arg}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1(arg)ext2
                                                    • \cmdmthargname{cmdName}[NEWNAME];
                                                         \cmdNameName[sub][sub][ext1]{arg}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1(arg)ext2
                                              595 \DeclareRobustCommandx{\cmdmthargname}[2][2=]
                                                        {\usrmth{#1}{Name}{argname}[#2]}
\cmdmthoargname ... to do!
                                                    • \cmdmthoargname{CMDNAME};
                                                        \CMDNAMEName[sub][sub][arg] = \mathcal{CMDNAME}_{sub}^{sub}(arg)
                                                    • \cmdmthoargname{cmdName}[NEWNAME];
                                                        \verb|\cmdNameName[sub][sub][arg]| = \mathcal{NEWNAME}^{sub}_{sub}(arg)
                                              597 \DeclareRobustCommandx{\cmdmthoargname}[2][2=]
                                                        {\usrmth{#1}{Name}{oargname}[#2]}
  \cmdmthparname ... to do!
                                                    \cmdmthparname{CMDNAME};
                                                        \verb|\CMDNAMEName[sub][sub][ext1]{par}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1[par]ext2
                                                    • \cmdmthparname{cmdName}[NEWNAME];
                                                        \verb|\cmdNameName[sub][sub][ext1]{par}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2
                                              599 \DeclareRobustCommandx{\cmdmthparname}[2][2=]
                                                        {\usrmth{#1}{Name}{parname}[#2]}
\cmdmthoparname ... to do!
                                                    • \cmdmthoparname{CMDNAME};
                                                        \CMDNAMEName[sub][sub][par] = \mathcal{CMDNAME}_{sub}^{sub}[par]
                                                    • \cmdmthoparname{cmdName}[NEWNAME];
                                                        \cmdNameName[sub][sub][par] = \mathcal{NEWNAME}_{sub}^{sub}[par]
                                             601 \DeclareRobustCommandx{\cmdmthoparname}[2][2=]
                                                        {\usrmth{#1}{Name}{oparname}[#2]}
                      \mthfam ... to do!
                                                    • \mthfam{NAME}[sub][sup][Ext] = \mathcal{N} \mathcal{A} \mathcal{M} \mathcal{E}_{sub}^{sup} Ext
                                                    • \mthargfam{NAME} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} [Ext2] = \mathcal{NAME}_{sub}^{sup} Ext1 \Big( Arg^{Ex^{Ex}} \Big) Ext2
                                                    • \mthparfam{NAME} [sub] [sup] [Ext1] {Par^{Ex^{Ex}}} [Ext2] = \mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}^{sup}_{sub}Ext1 \Big[Par^{Ex^{Ex}}\Big]Ext2
                                                    603 %% Style for Families
                                             604 \mbox{ }\mbox{mthall{fam}\newcommand{\mbox{mthstyfam}}{\mbox{mathscr}}}
                           \AFam \dots to do!
                                 \ldots \mathscr{A}, \mathscr{B}, \mathscr{C}, \mathscr{D}, \mathscr{E}, \mathscr{F}, \mathscr{G}, \mathscr{H}, \mathscr{I}, \mathscr{J}, \mathscr{K}, \mathscr{L}, \mathscr{M}, \mathscr{N}, \mathscr{O}, \mathscr{P}, \mathscr{Q}, \mathscr{R}, \mathscr{F}, \mathscr{T}, \mathscr{V}, 
                                             605 \seqoflatupp{Fam}{mthfam}
             \cmdmthfam ... to do!
                                                    \cmdmthfam{CMDNAME};
                                                        \verb|\CMDNAMEFam[sub][sub][ext]| = \mathscr{CMDNAMEFam}[sub][sub][ext]| = \mathscr{CMDNAMEFam}[sub][sub][ext]|
                                                    • \cmdmthfam{cmdName}[NEWNAME]:
                                                        \cmdNameFam[sub][sub][ext] = \mathcal{NEWNAME}^{sub}_{sub}ext
                                              606 \DeclareRobustCommandx{\cmdmthfam}[2][2=]
                                                       {\usrmth{#1}{Fam}{fam}[#2]}
     \cmdmthargfam ... to do!
```

```
\cmdmthargfam{CMDNAME};
                                                        • \cmdmthargfam{cmdName}[NEWNAME];
                                                        \label{lem:cmdNameFam} $$ \operatorname{Sub} [\operatorname{sub}] [\operatorname{sub}] [\operatorname{ext1}] = \mathcal{NEWNAME}_{sub}^{sub} ext1(arg) ext2 $$
                                            608 \DeclareRobustCommandx{\cmdmthargfam}[2][2=]
                                                      {\usrmth{#1}{Fam}{argfam}[#2]}
\cmdmthoargfam ... to do!
                                                   \cmdmthoargfam{CMDNAME};
                                                        \verb|\CMDNAMEFam[sub][sub][arg]| = \mathscr{CMDNAMEFam}[sub][sub][arg]| = \mathscr{CMDNAMEFam}[sub][sub][sub][arg]|
                                                   • \cmdmthoargfam{cmdFam}[NEWNAME];
                                                        \cmbox{cmdFamFam[sub] [sub] [arg]} = \mathcal{NEWNAME}^{sub}_{sub}(arg)
                                             610 \DeclareRobustCommandx{\cmdmthoargfam}[2][2=]
                                            611 {\usrmth{#1}{Fam}{oargfam}[#2]}
  \cmdmthparfam ... to do!
                                                   • \cmdmthparfam{CMDNAME};
                                                        \CMDNAMEFam[sub][sub][ext1]{par}[ext2] = \mathcal{CMDNAMEFam}[sub][sub][ext1][par]ext2
                                                   • \cmdmthparfam{cmdName}[NEWNAME];
                                                        \verb|\cmdNameFam[sub][sub][ext1]{par}[ext2] = \mathscr{NEWNMME}^{sub}_{sub}ext1[par]ext2
                                            612 \DeclareRobustCommandx{\cmdmthparfam}[2][2=]
                                                        {\usrmth{#1}{Fam}{parfam}[#2]}
\cmdmthoparfam ... to do!
                                                   • \cmdmthoparfam{CMDNAME};
                                                        \CMDNAMEFam[sub][sub][par] = \mathscr{CMDNAMEFam}[sub][par]
                                                   • \cmdmthoparfam{cmdFam}[NEWNAME];
                                                        \verb|\cmdFamFam[sub][sub][par]| = \mathcal{NEWNAME}_{sub}^{sub}[par]
                                             614 \DeclareRobustCommandx{\cmdmthoparfam}[2][2=]
                                            615 {\usrmth{#1}{Fam}{oparfam}[#2]}
                    \mthcls ... to do!
                                                  • \mthcls{NAME}[sub][sup][Ext] = \mathcal{NAME}_{sub}^{sup}Ext
                                                   • \mthargcls{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}}[Ext2] = NAME_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                   \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \  }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\  }} \texttt{\ \ 
                                                   • \mthparcls{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = \mathcal{NAME}_{sub}^{sup}Ext1\left[Par^{Ex^{Ex}}\right]Ext2
                                                   • \mthparcls*{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = NAME^{sup}_{sub}Ext1[Par^{Ex^{Ex}}]Ext2
                                             616 %% Style for Classes
                                            617 \mbox{ \cmdmthall{cls}\newcommand{\mbox{\mbox{\cmthstycls}}{\mbox{\mbox{\cmatheus}}}}
                         \ACls ... to do!
                               \dots A, B, C, D, E, F, G, H, I, J, X, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                            618 \seqoflatupp{Cls}{mthcls}
           \cmdmthcls ... to do!
                                                   \cmdmthcls{CMDNAME};
                                                        \verb|\CMDNAMECls[sub][sub][ext]| = \verb|\CMDNAME| sub| ext|
                                                   • \cmdmthcls{cmdName}[NEWNAME];
                                                        \cmdNameCls[sub][sub][ext] = NEWNAME_{sub}^{sub}ext
                                            619 \DeclareRobustCommandx{\cmdmthcls}[2][2=]
                                            620 {\usrmth{#1}{Cls}{cls}[#2]}
  \cmdmthargcls ... to do!
                                                   \cmdmthargcls{CMDNAME};
                                                        \verb|\CMDNAMECls[sub][sub][ext1]{arg}[ext2] = \verb|\CMDNAME|^{sub}_{sub}ext1(arg)ext2
```

```
\cmdmthargcls{cmdName}[NEWNAME];
                                                                                     \verb|\cmdNameCls[sub][sub][ext1]{arg}[ext2] = NEWNAME_{sub}^{sub}ext1(arg)ext2
                                                                  621 \DeclareRobustCommandx{\cmdmthargcls}[2][2=]
                                                                                   {\usrmth{#1}{Cls}{argcls}[#2]}
\cmdmthoargcls ... to do!
                                                                             \cmdmthoargcls{CMDNAME};
                                                                                    \CMDNAMEC1s[sub][sub] [arg] = \mathcal{CMDNAME}_{sub}^{sub}(arg)
                                                                             \cmdmthoargcls{cmdCls}[NEWNAME];
                                                                                    \verb|\cmdClsCls[sub][sub][arg]| = NEWNAME_{sub}^{sub}(arg)
                                                                  623 \DeclareRobustCommandx{\cmdmthoargcls}[2][2=]
                                                                  624 {\usrmth{#1}{Cls}{oargcls}[#2]}
    \cmdmthparcls ... to do!
                                                                             \cmdmthparcls{CMDNAME};
                                                                                    \verb|\CMDNAMECls[sub][sub][ext1][par][ext2] = \verb|\CMDNAME|^{sub}_{sub}ext1[par]ext2|
                                                                             • \cmdmthparcls{cmdName}[NEWNAME];
                                                                                    \cmdNameCls[sub][sub][ext1]{par}[ext2] = NEWNAME_{sub}^{sub}ext1[par]ext2
                                                                   625 \DeclareRobustCommandx{\cmdmthparcls}[2][2=]
                                                                  626 {\usrmth{#1}{Cls}{parcls}[#2]}
\cmdmthoparcls ... to do!
                                                                             • \cmdmthoparcls{CMDNAME};
                                                                                    \CMDNAMECls[sub][sub][par] = \mathcal{CMDNAME}_{sub}^{sub}[par]
                                                                             • \cmdmthoparcls{cmdCls}[NEWNAME];
                                                                                    \verb|\cmdClsCls[sub][sub][par]| = \verb|NEWNAME|_{sub}^{sub}[par]|
                                                                  627 \DeclareRobustCommandx{\cmdmthoparcls}[2][2=]
                                                                  628 {\usrmth{#1}{Cls}{oparcls}[#2]}
                              \mthsig ... to do!
                                                                             • \mthsig{Name}[sub][sup][Ext] = \mathcal{N}ame_{sub}^{sup}Ext
                                                                             • \mthargsig{Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} [Ext2] = Name_{sub}^{sup} Ext1 \left(Arg^{Ex^{Ex}}\right) Ext2
                                                                             • \mthargsig*{Name}[sub][sup][Ext1]{Arg^{Ex^{2}}}[Ext2] = \Re e^{sup}_{sub}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                             \bullet \  \  \, \texttt{\bare}[Sub][Sub][Ext1] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big] = \mathcal{N} ame_{sub}^{sup} Ext2 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big[ Par^{Ex^{Ex}} \Big] = \mathcal{N} ame_{sub}^{sup} Ext2 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \Big[ Par^{Ex^{Ex}} \Big] = \mathcal{N} ame_{sub}^{sup} Ext2 \Big[ Par^{Ex} \Big] = \mathcal{N} am
                                                                             \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{
                                                                   629 %% Style for Signatures
                                                                  630 \cmdmthall{sig}\newcommand{\mthstysig}{\mathpzc}
                                     \aSig ... to do!
                                               ... a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, \chi, y, z
                                                               \mathcal{A},~\mathcal{B},~\mathcal{C},~\mathcal{D},~\mathcal{E},~\mathcal{F},~\mathcal{G},~\mathcal{H},~I,~\mathcal{I},~\mathcal{K},~\mathcal{L},~\mathcal{M},~\mathcal{N},~\mathcal{O},~\mathcal{P},~\mathcal{Q},~\mathcal{R},~\mathcal{S},~\mathcal{T},~\mathcal{U},~\mathcal{V},~\mathcal{W},~\mathcal{X},~\mathcal{Y},~\mathcal{Z}
                                                               \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                                  631 \seqoflatlet{Sig}{mthsig}\seqofgrklow{Sig}{mthsig}
                \cmdmthsig ... to do!
                                                                             • \cmdmthsig{cmdName};
                                                                                    \colon dNameSig[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                             • \cmdmthsig{cmdName}[NewName];
                                                                                    \verb|\cmdNameSig[sub][sub][ext]| = \textit{NewName}^{sub}_{sub} ext|
                                                                   632 \DeclareRobustCommandx{\cmdmthsig}[2][2=]
                                                                  633 {\usrmth{#1}{Sig}{sig}[#2]}
    \cmdmthargsig ... to do!
                                                                             \cmdmthargsig{cmdName};
```

 $\verb|\cmdNameSig[sub][sub][ext1]{arg}[ext2] = \textit{cmdName}_{sub}^{sub}ext1(arg)ext2$ 

```
• \cmdmthargsig{cmdName}[NewName];
                                                                                                        \verb|\cmdNameSig[sub][sub][ext1]{arg}[ext2] = \textit{NewName}^{sub}_{sub}ext1(arg)ext2
                                                                                  634 \DeclareRobustCommandx{\cmdmthargsig}[2][2=]
                                                                                                       {\usrmth{#1}{Sig}{argsig}[#2]}
\cmdmthoargsig ... to do!
                                                                                               \cmdmthoargsig{cmdName};
                                                                                                       \verb|\cmdNameSig[sub][sub][arg]| = \textit{cmdName}_{sub}^{sub}(arg)
                                                                                               \cmdmthoargsig{cmdSig}[NewName];
                                                                                                       \verb|\cmdSigSig[sub][sub][arg]| = \textit{NewName}^{sub}_{sub}(arg)
                                                                                  636 \DeclareRobustCommandx{\cmdmthoargsig}[2][2=]
                                                                                                      {\usrmth{#1}{Sig}{oargsig}[#2]}
    \cmdmthparsig ... to do!
                                                                                               \cmdmthparsig{cmdName};
                                                                                                       \label{lem:cmdNameSig} $$ \operatorname{[sub][sub][ext1][par][ext2]} = cmd \operatorname{Name}_{sub}^{sub} ext1[par] ext2 $$
                                                                                               • \cmdmthparsig{cmdName}[NewName];
                                                                                                       \cmdNameSig[sub][sub][ext1]\{par\}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                                                                                   638 \DeclareRobustCommandx{\cmdmthparsig}[2][2=]
                                                                                                    {\usrmth{#1}{Sig}{parsig}[#2]}
\cmdmthoparsig ... to do!
                                                                                              • \cmdmthoparsig{cmdName};
                                                                                                       \colon dNameSig[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                                                                               • \cmdmthoparsig{cmdSig}[NewName];
                                                                                                       \verb|\cmdSigSig[sub][sub][par]| = \textit{NewName}^{sub}_{sub}[par]|
                                                                                  640 \DeclareRobustCommandx{\cmdmthoparsig}[2][2=]
                                                                                  641 {\usrmth{#1}{Sig}{oparsig}[#2]}
                                     \mthstr ... to do!
                                                                                              • \mthstr{Name} [sub] [sup] [Ext] = \mathfrak{Name}_{sub}^{sup}Ext
                                                                                              • \mthargstr{Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} [Ext2] = \mathfrak{Name}_{sub}^{sup} Ext1 \Big( Arg^{Ex^{Ex}} \Big) Ext2
                                                                                               • \mthargstr*{Name}[sub][sup][Ext1]{Arg^{Ex^{}}}[Ext2] = \mathfrak{Name}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                                              \bullet \ \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \  }} \texttt{\ \  }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \ \ }} \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \  }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \  } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ }} \texttt{\ \ } \texttt{
                                                                                              \bullet \  \  \, \texttt{\bare}[sub][sup][Ext1] \{ Par^{Ex^{-}}[Ext2] = \mathfrak{Name}_{sub}^{sup} Ext1[Par^{Ex^{Ex}}] Ext2] = \mathfrak{Name}_{sub}^{sup} Ext1[Par^{Ex^{Ex}}] Ext2 = \mathfrak{Name}_{sub}^{sup} Ext2[Par^{Ex^{Ex}}] Ext
                                                                                   642 %% Style for Structures
                                                                                  643 \mbox{ \mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\box{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbo
                                               \aStr ... to do!
                                                          ... \mathfrak{a}, \mathfrak{b}, \mathfrak{c}, \mathfrak{d}, \mathfrak{e}, \mathfrak{f}, \mathfrak{g}, \mathfrak{h}, \mathfrak{i}, \mathfrak{j}, \mathfrak{k}, \mathfrak{l}, \mathfrak{m}, \mathfrak{n}, \mathfrak{o}, \mathfrak{p}, \mathfrak{q}, \mathfrak{r}, \mathfrak{s}, \mathfrak{t}, \mathfrak{u}, \mathfrak{v}, \mathfrak{w}, \mathfrak{r}, \mathfrak{g}, \mathfrak{g}
                                                                              \mathfrak{A},\,\mathfrak{B},\,\mathfrak{C},\,\mathfrak{D},\,\mathfrak{E},\,\mathfrak{F},\,\mathfrak{G},\,\mathfrak{H},\,\mathfrak{I},\,\mathfrak{I},\,\mathfrak{K},\,\mathfrak{L},\,\mathfrak{M},\,\mathfrak{N},\,\mathfrak{D},\,\mathfrak{P},\,\mathfrak{Q},\,\mathfrak{R},\,\mathfrak{S},\,\mathfrak{T},\,\mathfrak{U},\,\mathfrak{V},\,\mathfrak{W},\,\mathfrak{X},\,\mathfrak{Y},\,\mathfrak{J}
                                                                              \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, \mathfrak{o}, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                                                  644 \sqoflatlet{Str}{mthstr}\sqofgrklow{Str}{mthstr}
                     \cmdmthstr ... to do!
                                                                                              • \cmdmthstr{cmdName};
                                                                                                       • \cmdmthstr{cmdName}[NewName];
                                                                                                       \verb|\cmdNameStr[sub][sub][ext]| = \mathfrak{NewName}_{sub}^{sub} ext
                                                                                  645 \DeclareRobustCommandx{\cmdmthstr}[2][2=]
                                                                                  646 {\usrmth{#1}{Str}{str}[#2]}
    \cmdmthargstr ... to do!
                                                                                               \cmdmthargstr{cmdName};
                                                                                                       \verb|\cmdNameStr[sub][sub][ext1]{arg}[ext2] = \verb|\cmdMame| sub ext1(arg)ext2|
```

```
• \cmdmthargstr{cmdName} [NewName];
                                                                            \verb|\cmdNameStr[sub][sub][ext1]{arg}[ext2] = \mathfrak{NewName}_{sub}^{sub}ext1(arg)ext2
                                                           647 \DeclareRobustCommandx{\cmdmthargstr}[2][2=]
                                                                           {\usrmth{#1}{Str}{argstr}[#2]}
\cmdmthoargstr ... to do!
                                                                    • \cmdmthoargstr{cmdName};
                                                                           \verb|\cmdNameStr[sub][sub][arg]| = cmd \mathfrak{Name}_{sub}^{sub}(arg)
                                                                    • \cmdmthoargstr{cmdStr}[NewName];
                                                                           \verb|\cmdStrStr[sub][sub][arg]| = \mathfrak{NewName}_{sub}^{sub}(arg)
                                                           649 \DeclareRobustCommandx{\cmdmthoargstr}[2][2=]
                                                                          {\usrmth{#1}{Str}{oargstr}[#2]}
   \cmdmthparstr ... to do!
                                                                    • \cmdmthparstr{cmdName};
                                                                           \verb|\cmdNameStr[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1[par]ext2|
                                                                     • \cmdmthparstr{cmdName} [NewName];
                                                                           \label{lem:cmdNameStr} $$ \operatorname{Sub}[\operatorname{sub}][\operatorname{ext1}] = \mathfrak{NewName}_{\operatorname{sub}}^{\operatorname{sub}} ext1[\operatorname{par}] ext2 $$
                                                           651 \DeclareRobustCommandx{\cmdmthparstr}[2][2=]
                                                                         {\usrmth{#1}{Str}{parstr}[#2]}
\cmdmthoparstr ... to do!
                                                                    • \cmdmthoparstr{cmdName};
                                                                           \verb|\cmdNameStr[sub][sub][par]| = \mathfrak{cmdName}_{sub}^{sub}[par]|
                                                                     • \cmdmthoparstr{cmdStr}[NewName];
                                                                           \colored \
                                                           653 \DeclareRobustCommandx{\cmdmthoparstr}[2][2=]
                                                                           {\usrmth{#1}{Str}{oparstr}[#2]}
                           \mthset ... to do!
                                                                    • \mthset{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                                    • \mthargset{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                     \bullet \ \texttt{\ Name} \ \texttt{[sub] [sup] [Ext1] \{Arg^{\{Ex^{\{Ex\}\}}\}} \ \texttt{[Ext2]} \ = \ \texttt{Name} \\ \text{$^{sub}_{sub}$} Ext1(Arg^{Ex^{Ex}}) Ext2 \\ \text{\ } = \ \texttt{\ } \\ \text{\ } \\ 
                                                                    \bullet \  \, \texttt{\t Name} \  \, \texttt{\t [Sub] [Sub] [Ext1] \{Par^{Ex^{\{Ex\}}\}} \  \, \texttt{\t Ext2]}} \  \, = \  \, \texttt{\t Name} \  \, \texttt{\t Ext1} \  \, \Big[ Par^{Ex^{Ex}} \Big] \  \, Ext2
                                                                     655 %% Style for Sets
                                                           656 \cmdmthall{set}\newcommand{\mthstyset}{\mathrm}
                                  \aSet ... to do!
                                          ... a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                                         A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                                        \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                        A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                                                           657 \seqoflet{Set}{mthset}
               \cmdmthset ... to do!
                                                                     \cmdmthset{cmdName};
                                                                           \verb|\cmdNameSet[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                                                                    • \cmdmthset{cmdName}[NewName];
                                                                           \cmdNameSet[sub][sub][ext] = NewName_{sub}^{sub}ext
                                                           658 \DeclareRobustCommandx{\cmdmthset}[2][2=]
                                                                         {\usrmth{#1}{Set}{set}[#2]}
   \cmdmthargset ... to do!
                                                                     \cmdmthargset{cmdName};
                                                                            \verb|\cmdNameSet[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
```

```
• \cmdmthargset{cmdName}[NewName];
                                                                           \verb|\cmdNameSet[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                           660 \DeclareRobustCommandx{\cmdmthargset}[2][2=]
                                                                           {\usrmth{#1}{Set}{argset}[#2]}
\cmdmthoargset ... to do!
                                                                     \cmdmthoargset{cmdName};
                                                                           \verb|\cmdNameSet[sub][sub][arg]| = cmdName_{sub}^{sub}(arg)
                                                                     • \cmdmthoargset{cmdSet}[NewName];
                                                                           \verb|\cmdSetSet[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
                                                           662 \DeclareRobustCommandx{\cmdmthoargset}[2][2=]
                                                                        {\usrmth{#1}{Set}{oargset}[#2]}
   \cmdmthparset ... to do!
                                                                     \cmdmthparset{cmdName};
                                                                           \label{lem:lemma:emdName} $$\operatorname{sub}[\operatorname{sub}][\operatorname{sub}][\operatorname{ext1}] = \operatorname{cmdName}_{\operatorname{sub}}^{\operatorname{sub}} ext1[par]ext2$
                                                                     • \cmdmthparset{cmdName}[NewName];
                                                                           \cmdNameSet[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                                                            664 \DeclareRobustCommandx{\cmdmthparset}[2][2=]
                                                           665 {\usrmth{#1}{Set}{parset}[#2]}
\cmdmthoparset ... to do!
                                                                    • \cmdmthoparset{cmdName};
                                                                           \colon dNameSet[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                                                     • \cmdmthoparset{cmdSet}[NewName];
                                                                           \verb|\cmdSetSet[sub][sub][par]| = NewName_{sub}^{sub}[par]|
                                                           666 \DeclareRobustCommandx{\cmdmthoparset}[2][2=]
                                                           667 {\usrmth{#1}{Set}{oparset}[#2]}
   \cmdmthsetext ... to do!
                                                           668 \DeclareRobustCommandx{\cmdmthsetext}[3][2=, 3=]
                                                           669 {\cmdmthset{#1}[#2]\caselower[q]{#1}%
                                                           670 \usrmthlet{\thestring}{Sym}{sym}
                                                                                       [\defval{#3}{\defval{\empchk{#2}}{\lowercase{#2}}}{\thestring}}]%
                                                           672 \usrmthlet{\thestring}{Elm}{elm}
                                                           673
                                                                                       [\defval{#3}{\defval{mpchk{#2}}{\defval{mpchk{#2}}}} \label{fig:pchk{#2}}]
                           \mthrel ... to do!
                                                                    • \mthrel{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                                     • \mthargrel{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name^{sup}_{sub}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                     • \mthargrel*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                     \bullet \ \texttt{\normalfine}[sub][sup][Ext1] \\ \{ Par^{Ex^{f}} \} \} \\ [Ext2] = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext1 \\ \Big[ Par^{Ex^{Ex}} \Big] \\ Ext2 \\ = Name_{sub}^{sup} Ext2 \\ = Name_{sub}^{sub} Ext2 \\ = Nam_{sub}^{sub} Ext2 \\ = Nam_{sub}^{sub} E
                                                                    \bullet \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ }} \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ } \texttt{ \ \ }
                                                            674 %% Style for Relations
                                                           675 \mbox{ } \mbox{mthall{rel}\newcommand{\mbox{mthstyrel}{\mathbb{}}} \
                                  \arrowvertaRel ... to do!
                                          \dots a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                                        A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, L, T, U, V, W, X, Y, Z
                                                        \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                                        A,\,B,\,\Gamma,\,\Delta,\,E,\,E,\,Z,\,H,\,\Theta,\,\Theta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\Pi,\,P,\,P,\,\Sigma,\,\Sigma,\,T,\,\Upsilon,\,\Phi,\,\Phi,\,X,\,\Psi,\,\Omega
                                                           676 \seqoflet{Rel}{mthrel}
               \cmdmthrel ... to do!
                                                                    • \cmdmthrel{cmdName};
```

 $\verb|\cmdNameRel[sub][sub][ext]| = cmdName_{sub}^{sub}ext$ 

```
• \cmdmthrel{cmdName}[NewName];
                                                  \colon dNameRel[sub][sub][ext] = NewName_{sub}^{sub}ext
                                       677 \DeclareRobustCommandx{\cmdmthrel}[2][2=]
                                                 {\usrmth{#1}{Rel}{rel}[#2]}
  \cmdmthargrel ... to do!
                                             • \cmdmthargrel{cmdName};
                                                 \cmdNameRel[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                             • \cmdmthargrel{cmdName}[NewName];
                                                  \cmdNameRel[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                       679 \DeclareRobustCommandx{\cmdmthargrel}[2][2=]
                                                {\usrmth{#1}{Rel}{argrel}[#2]}
\cmdmthoargrel ... to do!
                                             • \cmdmthoargrel{cmdName};
                                                 \cmdNameRel[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                             • \cmdmthoargrel{cmdRel}[NewName];
                                                 \verb|\cmdRelRel[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
                                       681 \DeclareRobustCommandx{\cmdmthoargrel}[2][2=]
                                       682 {\usrmth{#1}{Rel}{oargrel}[#2]}
  \cmdmthparrel ... to do!
                                             • \cmdmthparrel{cmdName};
                                                 \cmdNameRel[sub][sub][ext1]\{par\}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                                             • \cmdmthparrel{cmdName}[NewName];
                                                 \verb|\cmdNameRel[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2|
                                       683 \DeclareRobustCommandx{\cmdmthparrel}[2][2=]
                                                  {\usrmth{#1}{Rel}{parrel}[#2]}
\cmdmthoparrel ... to do!
                                             • \cmdmthoparrel{cmdName};
                                                 \cmdNameRel[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                             • \cmdmthoparrel{cmdRel}[NewName];
                                                  \cmdRelRel[sub] [sub] [par] = NewName_{sub}^{sub}[par]
                                       685 \DeclareRobustCommandx{\cmdmthoparrel}[2][2=]
                                                {\usrmth{#1}{Rel}{oparrel}[#2]}
                 \mthfun ... to do!
                                             • \mathbb{N} [sub] [sup] [Ext] = \mathbb{N} = \mathbb{N}
                                             • \mthargfun{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                             • \mthargfun*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                             \bullet \  \, \texttt{\bar{Name}[sub][sub][Ext1][Par^{Ex^{*}}]} \  \, \texttt{\bar{Ext2}} = \  \, \texttt{\bar{Name}} \  \, \texttt{\bar{Ext1}[Par^{Ex^{Ex}}]} \  \, \texttt{\bar{Ext2}} = \  \, \texttt{\bar{Name}} \  \, \texttt{\bar{Ext2}[Par^{Ex^{Ex}}]} \  \, \texttt{\bar{Ext2}} = \  \, \texttt{\bar{Name}} \  \, \texttt{\bar{Ext2}[Par^{Ex^{Ex}}]} \  \, \texttt{\bar{Ext2}[Par^{Ex^{Ex}}]} \  \, \texttt{\bar{Ext2}[Par^{Ex^{Ex}}]} = \  \, \texttt{\bar{Name}} \  \, \texttt{\ba
                                             687 %% Style for Functions
                                       688 \mbox{\mbox{\mbox{$\sim$}}{\mbox{\mbox{$\sim$}}}{\mbox{\mbox{$\sim$}}}{\mbox{\mbox{$\sim$}}}
                           ... a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                     A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                     \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                    A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                                       689 \seqoflet{Fun}{mthfun}
         \cmdmthfun ... to do!
                                             \cmdmthfun{cmdName};
                                                  \verb|\cmdNameFun[sub][sub][ext]| = \verb|\cmdName|^{sub}_{sub} ext|
```

```
• \cmdmthfun{cmdName} [NewName];
                                                         \cmdNameFun[sub][sub][ext] = NewName_{sub}^{sub}ext
                                            690 \DeclareRobustCommandx{\cmdmthfun}[2][2=]
                                                         {\usrmth{#1}{Fun}{fun}[#2]}
  \cmdmthargfun ... to do!
                                                   • \cmdmthargfun{cmdName};
                                                        \cmdNameFun[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                                   • \cmdmthargfun{cmdName}[NewName];
                                                         \cmdNameFun[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                            692 \DeclareRobustCommandx{\cmdmthargfun}[2][2=]
                                                        {\usrmth{#1}{Fun}{argfun}[#2]}
\cmdmthoargfun ... to do!
                                                   • \cmdmthoargfun{cmdName};
                                                        \colon = cmdNameFun[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                                    • \cmdmthoargfun{cmdFun}[NewName];
                                                        \verb|\cmdFunFun[sub][sub][arg]| = \verb|\NewName|_{sub}^{sub}(arg)
                                             694 \DeclareRobustCommandx{\cmdmthoargfun}[2][2=]
                                                      {\usrmth{#1}{Fun}{oargfun}[#2]}
  \cmdmthparfun ... to do!
                                                   • \cmdmthparfun{cmdName};
                                                        \cmdNameFun[sub][sub][ext1][par][ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                                                    • \cmdmthparfun{cmdName}[NewName];
                                                        696 \DeclareRobustCommandx{\cmdmthparfun}[2][2=]
                                                        {\usrmth{#1}{Fun}{parfun}[#2]}
\cmdmthoparfun ... to do!
                                                   • \cmdmthoparfun{cmdName};
                                                        \cmdNameFun[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                                    • \cmdmthoparfun{cmdFun}[NewName];
                                                         \colon [sub] [sub] [par] = NewName_{sub}^{sub} [par]
                                             698 \DeclareRobustCommandx{\cmdmthoparfun}[2][2=]
                                                        {\usrmth{#1}{Fun}{oparfun}[#2]}
                    \mthsym ... to do!
                                                   • \mthsym{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                    • \mthargsym{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                    \bullet \  \  \, \texttt{\bare}^{sup}[\texttt{Ext1}] \  \, \texttt{\bare}^{sup}[\texttt{Ext2}] \  \, = \  \  \, \texttt{\bare}^{sup}_{sub} Ext1 (Arg^{Ex^{Ex}}) Ext2 \  \, = \  \, \texttt{\bare}^{sup}_{sub} Ext1 (Arg^{Ex^{Ex}}) Ext2 \  \, = \  \, \texttt{\bare}^{sup}_{sub} Ext2 \  \, = \  \, \texttt{\bare}^{sub}_{sub} Ext
                                                   \bullet \  \, \texttt{\bar{Ext1}[Ext1]} = \mathtt{Name}_{sub}^{sup}Ext1\Big[Par^{Ex^{Ex}}\}\\ + \mathtt{\bar{Ext2}} = \mathtt{\bar{Ext1}}\Big[Par^{Ex^{Ex}}\Big]Ext2\Big] = \mathtt{\bar{Ext1}}\Big[Par^{Ex^{Ex}}\Big]Ext2\Big]
                                                    • \mthparsym*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2
                                             700 %% Style for Symbols
                                             701 \cmdmthall{sym}\newcommand{\mthstysym}{\mathtt}
                         \asym ... to do!
                               ... a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                          A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                          \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                          A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                                            702 \seqoflet{Sym}{mthsym}
           \cmdmthsym ... to do!
                                                    \cmdmthsym{cmdName};
                                                        \cmdNameSym[sub][sub][ext] = cmdName_{sub}^{sub}ext
```

```
• \cmdmthsym{cmdName}[NewName];
                                                                                    \colon colon col
                                                                  703 \DeclareRobustCommandx{\cmdmthsym}[2][2=]
                                                                                   {\usrmth{#1}{Sym}{sym}[#2]}
    \cmdmthargsym ... to do!
                                                                            • \cmdmthargsym{cmdName};
                                                                                   \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1(arg)ext2
                                                                            • \cmdmthargsym{cmdName}[NewName];
                                                                                    \c MameSym[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                                  705 \DeclareRobustCommandx{\cmdmthargsym}[2][2=]
                                                                                  {\usrmth{#1}{Sym}{argsym}[#2]}
\cmdmthoargsym ... to do!
                                                                            • \cmdmthoargsym{cmdName};
                                                                                   • \cmdmthoargsym{cmdSym}[NewName];
                                                                                   \verb|\cmdSymSym[sub][sub][arg]| = \verb|\NewName|_{sub}^{sub}(arg)
                                                                  707 \DeclareRobustCommandx{\cmdmthoargsym}[2][2=]
                                                                                  {\usrmth{#1}{Sym}{oargsym}[#2]}
    \cmdmthparsym ... to do!
                                                                            • \cmdmthparsym{cmdName};
                                                                                   \cmdNameSym[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                                                                            • \cmdmthparsym{cmdName}[NewName];
                                                                                   \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdNamesub| ext1[par]ext2|
                                                                  709 \DeclareRobustCommandx{\cmdmthparsym}[2][2=]
                                                                                     {\usrmth{#1}{Sym}{parsym}[#2]}
\cmdmthoparsym ... to do!
                                                                            • \cmdmthoparsym{cmdName};
                                                                                   • \cmdmthoparsym{cmdSym}[NewName];
                                                                                   \cmdSymSym[sub][sub][par] = NewName_{sub}^{sub}[par]
                                                                  711 \DeclareRobustCommandx{\cmdmthoparsym}[2][2=]
                                                                                  {\usrmth{#1}{Sym}{oparsym}[#2]}
                              \mbox{\mbox{$\mbox{$\mbox{$\mbox{$}}}} to do!
                                                                            • \mthelm{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                                             \bullet \verb| \t Mame | [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} | [Ext2] = Name_{sub}^{sup} Ext1 \Big( Arg^{Ex^{Ex}} \Big) Ext2 | (Arg^{Ex^{Ex}}) | [Ext2] | (Arg^{Ex^{Ex}}) | (Arg^{Ex}) | (Arg^{E
                                                                            • \mthargelm*{Name}[sub][sup][Ext1]{Arg^{Ex^{-}}{Ex}}}[Ext2] = Name^{sup}_{sub}Ext1(Arg^{Ex^{-}})Ext2
                                                                             \bullet \ \texttt{\normalfont{Name}[sub][sup][Ext1][Par^{Ex^{}}]} [Ext2] = Name_{sub}^{sup} Ext1 \Big[ Par^{Ex^{Ex}} \Big] Ext2 \\ = Name_{sub}^{sup} Ext2 \\ = Nam_{sub}^{sup} Ext2 \\ = Name_{sub}^{sup} E
                                                                            • \mthparelm*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2
                                                                  713 %% Style for Elements
                                                                  714 \mbox{ } \mbox{mthall{elm}\newcommand{\mbox{mthstyelm}{\mathbb{}}} \mbox{ } \mbox{mathnormal} \mbox{}
                                              \dots a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                                              A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                                              \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                              A,\,B,\,\Gamma,\,\Delta,\,E,\,E,\,Z,\,H,\,\Theta,\,\Theta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\Pi,\,P,\,P,\,\Sigma,\,\Sigma,\,T,\,\Upsilon,\,\Phi,\,\Phi,\,X,\,\Psi,\,\Omega
                                                                  715 \seqoflet{Elm}{mthelm}
                \cmdmthelm ... to do!
                                                                            \cmdmthelm{cmdName};
```

 $\verb|\cmdNameElm[sub][sub][ext]| = cmdName_{sub}^{sub}ext$ 

```
• \cmdmthelm{cmdName}[NewName];
                         \colon = NewName_{sub}^{sub}[sub][ext] = NewName_{sub}^{sub}ext
                    716 \DeclareRobustCommandx{\cmdmthelm}[2][2=]
                         {\usrmth{#1}{Elm}{elm}[#2]}
   \cmdmthargelm ... to do!
                       \cmdmthargelm{cmdName};
                         \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                       • \cmdmthargelm{cmdName}[NewName];
                         \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                    718 \DeclareRobustCommandx{\cmdmthargelm}[2][2=]
                         {\usrmth{#1}{Elm}{argelm}[#2]}
  \cmdmthoargelm ... to do!
                       \cmdmthoargelm{cmdName};
                         \colon = cmdNameElm[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                       • \cmdmthoargelm{cmdElm}[NewName];
                         \cmbox{cmdElmElm[sub] [sub] [arg]} = NewName_{sub}^{sub}(arg)
                    720 \DeclareRobustCommandx{\cmdmthoargelm}[2][2=]
                        {\usrmth{#1}{Elm}{oargelm}[#2]}
   \cmdmthparelm ... to do!
                       \cmdmthparelm{cmdName};
                         \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                       • \cmdmthparelm{cmdName}[NewName];
                         \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                    722 \DeclareRobustCommandx{\cmdmthparelm}[2][2=]
                         {\usrmth{#1}{Elm}{parelm}[#2]}
  \cmdmthoparelm ... to do!
                       \cmdmthoparelm{cmdName};
                         \verb|\cmdNameElm[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                       • \cmdmthoparelm{cmdElm}[NewName];
                         \cmdElmElm[sub] [sub] [par] = NewName_{sub}^{sub}[par]
                    724 \DeclareRobustCommandx{\cmdmthoparelm}[2][2=]
                         {\usrmth{#1}{Elm}{oparelm}[#2]}
   \cmdmthsymelm ... to do!
                       • \cmdmthsymelm{cmdName};
                         \verb|\cmdNameSym[sub][sub][ext]| = \verb|\cmdName|_{sub}^{sub} ext|
                         \colon dNameElm[sub][sub][ext] = cmdName^{sub}_{sub}ext
                       • \cmdmthsymelm{cmdName}[NewName];
                          \verb|\cmdNameSym[sub][sub][ext]| = \verb|\NewName|_{sub}^{sub}ext|
                          \verb|\cmdNameElm[sub][sub][ext]| = NewName_{sub}^{sub}ext
                    727 \DeclareRobustCommandx{\cmdmthsymelm}[2][2=]
                          {\cmdmthsym{#1}[#2]%
                    729
                          \cmdmthelm{#1}[#2]}
\cmdmthargsymelm ... to do!
                       \cmdmthargsymelm{cmdName};
                         \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|| sub|| ext1|| (arg)ext2||
                         \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                       • \cmdmthargsymelm{cmdName}[NewName];
                         \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1(arg)ext2
                         \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
```

```
730 \DeclareRobustCommandx{\cmdmthargsymelm}[2][2=]
                                                                        {\cmdmthargsym{#1}[#2]%
                                                        732
                                                                        \cmdmthargelm{#1}[#2]}
\cmdmthoargsymelm ... to do!
                                                                \cmdmthoargsymelm{cmdName};
                                                                      \cmbox{\cmdNameSym[sub][sub][arg]} = cmdName_{sub}^{sub}(arg)
                                                                      \verb|\cmdNameElm[sub][sub][arg]| = cmdName_{sub}^{sub}(arg)
                                                                • \cmdmthoargsymelm{cmdName}[NewName];
                                                                     \colon = \
                                                                     \colon = NewName_{sub}^{sub}(arg) = NewName_{sub}^{sub}(arg)
                                                         733 \DeclareRobustCommandx{\cmdmthoargsymelm}[2][2=]
                                                                        {\cmdmthoargsym{#1}[#2]%
                                                                        \cmdmthoargelm{#1}[#2]}
  \cmdmthparsymelm ... to do!
                                                                \cmdmthparsymelm{cmdName};
                                                                      \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1[par]ext2|
                                                                      \colone{local} \col
                                                                • \cmdmthparsymelm{cmdName}[NewName];
                                                                      \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdNames|^{sub}_{sub}ext1[par]ext2
                                                                      \colonerge{cmdNameElm[sub][sub][ext1]{par}[ext2]} = NewName^{sub}_{sub}ext1[par]ext2
                                                         736 \DeclareRobustCommandx{\cmdmthparsymelm}[2][2=]
                                                                        {\cmdmthparsym{#1}[#2]%
                                                                        \cmdmthparelm{#1}[#2]}
                                                         738
\cmdmthoparsymelm ... to do!
                                                                \cmdmthoparsymelm{cmdName};
                                                                      \cmbox{\cmdNameSym[sub][sub][par]} = cmdName_{sub}^{sub}[par]
                                                                      \colonerge{cmdNameSub[par]} = cmdName_{sub}^{sub[par]}
                                                                • \cmdmthoparsymelm{cmdName}[NewName];
                                                                      \verb|\cmdNameSym[sub][sub][par]| = \verb|\NewName|_{sub}^{sub}[par]|
                                                                      \verb|\cmdNameElm[sub][sub][par]| = NewName_{sub}^{sub}[par]|
                                                        739 \DeclareRobustCommandx{\cmdmthoparsymelm}[2][2=]
                                                                        {\cmdmthoparsym{#1}[#2]%
                                                                        \cmdmthoparelm{#1}[#2]}
                                                        \mthluop ... to do!
                                                                \bullet \ \texttt{\bary [sub] [sup] [Ext]} = \oplus_{sub}^{sup} Ext ]
                                                                ullet \mthlbop{\oplus}[sub][sup][Ext] = \oplus_{sub}^{sup}Ext
                                                        743 %% Style for \LaTex Operators
                                                         744 \cmdmth{luop}\newcommand{\mthstyluop}[1]{\textstyle\mathop{#1}}
                                                        745 \mbox{cmdmth{lbop}\newcommand{\mbstylbop}[1]{\textstyle}mathbin{#1}}
                 \cmdmthluop ... to do!
                                          . . .
                                                               • \cmdmthluop{cmdName};
                                                                     \verb|\cmdNameUOp[sub][sub][ext]| = cmdName_{sub}^{sub} ext|
                                                                • \cmdmthluop{cmdName}[\oplus];
                                                                      \colon = 0
                                                                \cmdmthlbop{cmdName};
                                                                     \colon dNameBOp[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                • \cmdmthlbop{cmdName}[\oplus];
                                                                     \c Mame BOp[sub][sub][ext] = \bigoplus_{sub}^{sub} ext
                                                         746 \DeclareRobustCommandx{\cmdmthluop}[2][2=]
                                                                        {\usrmth{#1}{UOp}{luop}[#2]}
                                                         748 \DeclareRobustCommandx{\cmdmthlbop}[2][2=]
                                                                       {\usrmth{#1}{BOp}{lbop}[#2]}
```

```
\mthlrel ... to do!
                                                                                  • \mthlrel{\preceq}[sub][sup][Ext] = \preceq_{sub}^{sup} Ext
                                                                       750 %% Style for \LaTex Relations
                                                                       751 \cmdmth{lrel}\newcommand{\mthstylrel}{\mathrel}
             \cmdmthlrel ... to do!
                                                                                  • \cmdmthlrel{cmdName};
                                                                                         \cmdNameRel[sub][sub][ext] = cmdName_{sub}^{sub} ext
                                                                                  • \cmdmthlrel{cmdName}[\preceq];
                                                                                          \colon 
                                                                       752 \DeclareRobustCommandx{\cmdmthlrel}[2][2=]
                                                                                       {\usrmth{#1}{Rel}{lrel}[#2]}
                                                                       \mthsnt ... to do!
                                                                                  • \mthsnt{Name} [sub] [sup] [Ext] = Name_{sub}^{sup}Ext
                                                                                  • \mthargsnt{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                                  • \mthargsnt*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                                                  \bullet \  \, \texttt{\bar{Name}[sub][sub][Ext1][Par^{Ex^{Ex}}]} \  \, [\texttt{Ext2}] = \  \, \texttt{\bar{Name}} \  \, Ext1 \  \, \Big[ Par^{Ex^{Ex}} \Big] \  \, Ext2 \
                                                                                  \bullet \  \, \texttt{Name} \texttt{[sub][sup][Ext1]} \texttt{\{Par^{Ex^{Ex}}\}} \texttt{[Ext2]} = \mathsf{Name}_{sub}^{sup} Ext1 [Par^{Ex^{Ex}}] Ext2 = \mathsf{Name}_{sub}^{sup} Ext2 = \mathsf{Name}_{sub}
                                                                       755 %% Style for Sentences
                                                                       756 \cmdmthall{snt}\newcommand{\mthstysnt}{\mathsf}
                                                  ... a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                                                   A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                                                   \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,\mathsf{o},\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                                                  \mathsf{A},\,\mathsf{B},\,\mathsf{\Gamma},\,\Delta,\,\mathsf{E},\,\mathsf{E},\,\mathsf{Z},\,\mathsf{H},\,\Theta,\,\varTheta,\,\mathsf{I},\,\mathsf{K},\,\mathsf{K},\,\mathsf{\Lambda},\,\mathsf{M},\,\mathsf{N},\,\Xi,\,\mathsf{O},\,\mathsf{\Pi},\,\varPi,\,\mathsf{P},\,\mathsf{P},\,\Sigma,\,\varSigma,\,\mathsf{T},\,\Upsilon,\,\Phi,\,\varPhi,\,\mathsf{X},\,\Psi,\,\Omega
                                                                       757 \seqoflet{Snt}{mthsnt}
                 \cmdmthsnt ... to do!
                                                                                  \cmdmthsnt{cmdName};
                                                                                          \colon = cmdNameSnt[sub][sub][ext] = cmdName<math>_{sub}^{sub}ext
                                                                                  • \cmdmthsnt{cmdName}[NewName];
                                                                                          \verb|\cmdNameSnt[sub][sub][ext]| = \verb|\NewName|_{sub}^{sub} ext|
                                                                       758 \DeclareRobustCommandx{\cmdmthsnt}[2][2=]
                                                                                        {\usrmth{#1}{Snt}{snt}[#2]}
    \cmdmthargsnt ... to do!
                                                                                  \cmdmthargsnt{cmdName};
                                                                                         \cmdNameSnt[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                                                                  • \cmdmthargsnt{cmdName}[NewName];
                                                                                         \c NameSnt[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                                       760 \DeclareRobustCommandx{\cmdmthargsnt}[2][2=]
                                                                       761 {\usrmth{#1}{Snt}{argsnt}[#2]}
\cmdmthoargsnt ... to do!
                                                                                  \cmdmthoargsnt{cmdName};
                                                                                         \colon = cmdNameSnt[sub][sub][arg] = cmdName<math>_{sub}^{sub}(arg)
                                                                                  • \cmdmthoargsnt{cmdName}[NewName];
                                                                                         \verb|\cmdNameSnt[sub][sub][arg]| = \verb|\NewName|_{sub}^{sub}(arg)
                                                                       762 \DeclareRobustCommandx{\cmdmthoargsnt}[2][2=]
                                                                       763 {\usrmth{#1}{Snt}{oargsnt}[#2]}
    \cmdmthparsnt ... to do!
```

```
\cmdmthparsnt{cmdName};
                                                             \verb|\cmdNameSnt[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1[par]ext2|
                                                        • \cmdmthparsnt{cmdName}[NewName];
                                                             \verb|\cmdNameSnt[sub][sub][ext1]{par}[ext2] = \verb|\NewName|^{sub}_{sub}ext1[par]ext2|
                                                 764 \DeclareRobustCommandx{\cmdmthparsnt}[2][2=]
                                                           {\usrmth{#1}{Snt}{parsnt}[#2]}
\cmdmthoparsnt ... to do!
                                                       • \cmdmthoparsnt{cmdName};
                                                             \verb|\cmdNameSnt[sub][sub][par]| = \verb|\cmdNameSnt[sub][par]|
                                                        • \cmdmthoparsnt{cmdName}[NewName];
                                                             \colon = NewNameSub[par] = NewName_{sub}^{sub}[par]
                                                 766 \DeclareRobustCommandx{\cmdmthoparsnt}[2][2=]
                                                           {\usrmth{#1}{Snt}{oparsnt}[#2]}
                      \mthfrm ... to do!
                                                       \bullet \ \  \  \, \texttt{Name} \texttt{[sub][sup][Ext]} = Name_{sub}^{sup}Ext
                                                        • \mthargfrm{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                                                        \bullet \  \, \texttt{\normalfrm*{Name}[sub][sup][Ext1]{Arg^{Ex^{-}}{Ex}}} \  \, [\texttt{Ext2}] = Name_{sub}^{sup} Ext1(Arg^{Ex^{-Ex}}) Ext2 = Name_{sub}^{sub} Ext1(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) Ext2(Arg^{Ex^{-Ex}}) E
                                                        • \mthparfrm{Name} [sub] [sup] [Ext1] {Par^{Ex^{Ex}}} [Ext2] = Name_{sub}^{sup} Ext1 [Par^{Ex^{Ex}}] Ext2
                                                        \bullet \  \  \, \texttt{\bare}[sub][sub][sup][Ext1][Par^{Ex^*}]Ext2] = Name^{sup}_{sub}Ext1[Par^{Ex^{Ex}}]Ext2] = Name^{sup}_{sub}Ext1[Par^{Ex^{Ex}}]Ext2
                                                 768 %% Style for Formulae
                                                 769 \mbox{\cmdmthall{frm}\newcommand{\mbstyfrm}{\mbox{\cmthit}}}
                           \arrange Trm ... to do!
                                  \dots a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                                              A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                              \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                             770 \seqoflet{Frm}{mthfrm}
            \cmdmthfrm ... to do!
                                                       • \cmdmthfrm{cmdName};
                                                             \cmdNameFrm[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                        • \cmdmthfrm{cmdName}[NewName];
                                                             \colon 
                                                 771 \DeclareRobustCommandx{\cmdmthfrm}[2][2=]
                                                772 {\usrmth{#1}{Frm}{frm}[#2]}
  \cmdmthargfrm ... to do!
                                                       • \cmdmthargfrm{cmdName};
                                                             \cmdNameFrm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                                        • \cmdmthargfrm{cmdName}[NewName];
                                                             \cmdNameFrm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                 773 \DeclareRobustCommandx{\cmdmthargfrm}[2][2=]
                                                 774 {\usrmth{#1}{Frm}{argfrm}[#2]}
\c to do!
                                                       • \cmdmthoargfrm{cmdName};
                                                             \colon dNameFrm[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                                        • \cmdmthoargfrm{cmdName}[NewName];
                                                             \colon = NewName_{sub}^{sub}(arg) = NewName_{sub}^{sub}(arg)
                                                775 \DeclareRobustCommandx{\cmdmthoargfrm}[2][2=]
                                                776 {\usrmth{#1}{Frm}{oargfrm}[#2]}
  \cmdmthparfrm ... to do!
```

```
\cmdmthparfrm{cmdName};
                      \verb|\cmdNameFrm[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                    • \cmdmthparfrm{cmdName}[NewName];
                      777 \DeclareRobustCommandx{\cmdmthparfrm}[2][2=]
                 778 {\usrmth{#1}{Frm}{parfrm}[#2]}
\cmdmthoparfrm ... to do!
                    • \cmdmthoparfrm{cmdName};
                      \verb|\cmdNameFrm[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                    • \cmdmthoparfrm{cmdName}[NewName];
                      \colon dNameFrm[sub][sub][par] = NewName^{sub}_{sub}[par]
                 779 \DeclareRobustCommandx{\cmdmthoparfrm}[2][2=]
                      {\usrmth{#1}{Frm}{oparfrm}[#2]}
                 \mthmat ... to do!
                    • \mathbb{E}_{sub}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                    • \mthargmat{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
                    • \mthparmat{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name^{sup}_{sub}Ext1[Par^{Ex^{Ex}}]Ext2
                    • \mthparmat*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2
                  782 %% Style for Matrices
                 783 \mbox{\mbox{$\mathsf{\#1}}} \mbox{\mbox{$\mathsf{\#1}$}}
          \aMat ... to do!
            \dots a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
                A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,\mathbf{o},\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                 784 \seqoflet{Mat}{mthmat}
    \cmdmthmat ... to do!
                    • \cmdmthmat{cmdName};
                      \colon dNameMat[sub][sub][ext] = cmdName_{sub}^{sub}ext
                    • \cmdmthmat{cmdName}[NewName];
                      \verb|\cmdNameMat[sub][sub][ext]| = \verb|NewName| ^{sub}_{sub} ext|
                  785 \DeclareRobustCommandx{\cmdmthmat}[2][2=]
                      {\usrmth{#1}{Mat}{mat}[#2]}
 \cmdmthargmat ... to do!
                    • \cmdmthargmat{cmdName};
                      \verb|\cmdNameMat[sub][sub][ext1]{arg}[ext2] = \mathbf{cmdName}_{sub}^{sub}ext1(arg)ext2
                    • \cmdmthargmat{cmdName}[NewName];
                      \cmdNameMat[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                 787 \DeclareRobustCommandx{\cmdmthargmat}[2][2=]
                 788 {\usrmth{#1}{Mat}{argmat}[#2]}
\cmdmthoargmat ... to do!
                    • \cmdmthoargmat{cmdName};
                      \cmdNameMat[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                    \cmdmthoargmat{cmdName}[NewName];
                      \c New Name Mat[sub][sub][arg] = New Name <math>_{sub}^{sub}(arg)
                  789 \DeclareRobustCommandx{\cmdmthoargmat}[2][2=]
                  790 {\usrmth{#1}{Mat}{oargmat}[#2]}
```

```
\cmdmthparmat ... to do!
                                                        • \cmdmthparmat{cmdName};
                                                             \verb|\cmdNameMat[sub][sub][ext1]{par}[ext2] = \mathbf{cmdName}_{sub}^{sub}ext1[par]ext2|
                                                        • \cmdmthparmat{cmdName}[NewName];
                                                             \c NewName Sub [sub] [sub] [ext1] [par] [ext2] = NewName Sub ext1[par] ext2
                                                 791 \DeclareRobustCommandx{\cmdmthparmat}[2][2=]
                                                           {\usrmth{#1}{Mat}{parmat}[#2]}
\cmdmthoparmat ... to do!
                                                        • \cmdmthoparmat{cmdName};
                                                             \cmdNameMat[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                                        • \cmdmthoparmat{cmdName}[NewName];
                                                             \verb|\cmdNameMat[sub][sub][par]| = \verb|NewName|^{sub}_{sub}[par]|
                                                 793 \DeclareRobustCommandx{\cmdmthoparmat}[2][2=]
                                                794 {\usrmth{#1}{Mat}{oparmat}[#2]}
                      \mthvec ... to do!
                                                        ullet \mthvec{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                        • \mthargvec{Name} [sub] [sup] [Ext1] {Arg^{Ex^{Ex}}} [Ext2] = Name_{sub}^{sup} Ext1 (Arg^{Ex^{Ex}}) Ext2
                                                        \bullet \ \texttt{\normalfont{Name}[sub][sup][Ext1]{Arg^{Ex^{}}}} [\texttt{Ext2}] = \textit{Name}^{sup}_{sub} Ext1(Arg^{Ex^{Ex}}) Ext2
                                                        • \mthparvec{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name^{sup}_{sub}Ext1[Par^{Ex^{Ex}}]Ext2
                                                        \bullet \  \, \texttt{\colored}[sub][sub][Ext1] \{ Par^{\{Ex^{\{Ex\}}\}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2] = Name_{sub}^{sub}Ext1[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex^{Ex}}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ext2[Par^{Ex}]Ex
                                                 795 %% Style for Vectors
                                                 796 \cmdmthall{vec}\newcommand{\mthstyvec}[1]{\boldsymbol{\mathit{#1}}}
                           \aVec ... to do!
                                  \dots \ a, \ b, \ c, \ d, \ e, \ f, \ g, \ h, \ i, \ j, \ k, \ l, \ m, \ n, \ o, \ p, \ q, \ r, \ s, \ t, \ u, \ v, \ w, \ x, \ y, \ z
                                              A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
                                              \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                              A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                                                797 \seqoflet{Vec}{mthvec}
            \cmdmthvec ... to do!
                                                        • \cmdmthvec{cmdName};
                                                             \colon colon col
                                                        • \cmdmthvec{cmdName}[NewName];
                                                             \verb|\cmdNameVec[sub][sub][ext]| = NewName^{sub}_{sub}ext
                                                798 \DeclareRobustCommandx{\cmdmthvec}[2][2=]
                                                799 {\usrmth{#1}{Vec}{vec}[#2]}
  \cmdmthargvec ... to do!
                                                        \cmdmthargvec{cmdName};
                                                             \verb|\cmdNameVec[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2|
                                                        • \cmdmthargvec{cmdName}[NewName];
                                                             \verb|\cmdNameVec[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                 800 \DeclareRobustCommandx{\cmdmthargvec}[2][2=]
                                                801 {\usrmth{#1}{Vec}{argvec}[#2]}
\cmdmthoargvec ... to do!
                                                        • \cmdmthoargvec{cmdName};
                                                             \verb|\cmdNameVec[sub][sub][arg]| = cmdName^{sub}_{sub}(arg)
                                                        • \cmdmthoargvec{cmdName}[NewName];
                                                             \colon = NewName_{sub}^{sub}[arg] = NewName_{sub}^{sub}(arg)
                                                 802 \DeclareRobustCommandx{\cmdmthoargvec}[2][2=]
                                                803 {\usrmth{#1}{Vec}{oargvec}[#2]}
```

```
\cmdmthparvec ... to do!
                • \cmdmthparvec{cmdName};
                  \verb|\cmdNameVec[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                • \cmdmthparvec{cmdName} [NewName];
                  \verb|\cmdNameVec[sub][sub][ext1]{par}[ext2] = NewName^{sub}_{sub}ext1[par]ext2
              804 \DeclareRobustCommandx{\cmdmthparvec}[2][2=]
                  {\usrmth{#1}{Vec}{parvec}[#2]}
\cmdmthoparvec ... to do!
                • \cmdmthoparvec{cmdName};
                  \verb|\cmdNameVec[sub][sub][par]| = cmdName^{sub}_{sub}[par]|
                • \cmdmthoparvec{cmdName}[NewName];
                  \verb|\cmdNameVec[sub][sub][par]| = NewName_{sub}^{sub}[par]|
              806 \DeclareRobustCommandx{\cmdmthoparvec}[2][2=]
                  {\usrmth{#1}{Vec}{oparvec}[#2]}
              808 \fi
              813 \iftxt@
     \dotcheck
                • A\dotcheck a\dotcheck.a = A.a. a
              814 \DeclareRobustCommand{\dotcheck}
                  {\@ifnextchar.{}{.\@}}
              \adhoc
                • \adhoc = ad\ hoc
              817 \cmdtxtabr{adhoc}[ad hoc]
                • \arrange afortiori = a fortiori
    \afortiori
              818 \mbox{ } \mbox{cmdtxtabr{afortiori}[a fortiori]}
      \apriori
                • \apriori = a priori
              819 \cmdtxtabr{apriori}[a priori]
                • \arrowvertaposteriori = a\ posteriori
  \aposteriori
              820 \cmdtxtabr{aposteriori}[a posteriori]
                • \backslash cf = cf.
          \cf
              821 \cmdtxtabr{cf}[cf.\@]
                • \del{dedicto} = de \ dicto
      \dedicto
              822 \cmdtxtabr{dedicto}[de dicto]
                • \del{defacto} = de \ facto
      \defacto
              823 \cmdtxtabr{defacto}[de facto]
                • \forall dere = de re
        \dere
              824 \cmdtxtabr{dere}[de re]
                • \foralldivideetimpera = divide et impera
\divideetimpera
              825 \cmdtxtabr{divideetimpera}[divide et impera]
          \eg
                • \backslash eg = e.g.
              826 \cmdtxtabr{eg}[e.g.\@]
```

```
\ergo
                     ◆ \ergo = ergo
                  827 \cmdtxtabr{ergo}
                     • \errata = errata
         \errata
                  828 \cmdtxtabr{errata}
        \erratum
                     • \erratum = erratum
                  829 \cmdtxtabr{erratum}
           \etal
                     • \ensuremath{\backslash} \mathtt{etal} = et \ al.
                  830 \cmdtxtabr{etal}[et al.\@]
            \etc
                     • \backslashetc = etc.
                  831 \cmdtxtabr{etc}[etc.\@]
             \ie
                     • \forallie = i.e.
                  832 \cmdtxtabr{ie}[i.e.\@]
                     • \mbox{\mbox{\tt mutatis}} mutandis = mutatis mutandis
\mutatismutandis
                  833 \cmdtxtabr{mutatismutandis}[mutatis mutandis]
      \percontra
                     • \percontra = per contra
                  834 \cmdtxtabr{percontra}[per contra]
     \primafacie
                     ullet \primafacie = prima\ facie
                  835 \cmdtxtabr{primafacie}[prima facie]
      \viceversa
                     • \viceversa = vice versa
                  836 \cmdtxtabr{viceversa}[vice versa]
                     • \vert vs = vs.
             \vs
                  837 \cmdtxtabr{vs}[vs.\@]
            \viz
                     • \forall viz = viz.
                  838 \cmdtxtabr{viz}[viz.\@]
                  \Afortiori
                     • \Afortiori = A fortiori
                  840 \cmdtxtabr{Afortiori}[A fortiori]
        \Apriori
                     • \Apriori = A priori
                  841 \cmdtxtabr{Apriori}[A priori]
    \Aposteriori
                     • \Aposteriori = A posteriori
                  842 \cmdtxtabr{Aposteriori}[A posteriori]
                     • \Dedicto = De \ dicto
        \Dedicto
                  843 \cmdtxtabr{Dedicto}[De dicto]
        \Defacto
                     844 \cmdtxtabr{Defacto} [De facto]
           \Dere
                     • \Dere = De re
                  845 \cmdtxtabr{Dere}[De re]
                     • \Divideetimpera = Divide \ et \ impera
 \Divideetimpera
                  846 \cmdtxtabr{Divideetimpera}[Divide et impera]
```

```
\Eg • \Eg = E.g.
             847 \cmdtxtabr{Eg}[E.g.\@]
               • \Errata = Errata
      \Errata
             848 \cmdtxtabr{Errata}
      \Erratum
               • \Erratum = Erratum
             849 \cmdtxtabr{Erratum}
              • \Mutatismutandis = Mutatis mutandis
\Mutatismutandis
             850 \cmdtxtabr{Mutatismutandis}[Mutatis mutandis]
    \Percontra
               • \ensuremath{\backslash} \mathtt{Percontra} = Per\ contra
             851 \cmdtxtabr{Percontra}[Per contra]
                \bullet \ \ \verb|\Primafacie| = Prima\ facie \\
   \Primafacie
             852 \cmdtxtabr{Primafacie}[Prima facie]
    \Viceversa
               • \forall viceversa = Vice versa
             853 \cmdtxtabr{Viceversa}[Vice versa]
             • \alphala = \grave{a} la
         \ala
             857 \cmdtxtabr{ala}[\'a la]
        \nif
               • \n naif = naif
             858 \cmdtxtabr{naif}[na\"{i}f]
       \naive
               859 \cmdtxtabr{naive}[na\"{i}ve]
        \role
             • \role = r\hat{o}le
             860 \cmdtxtabr{role}[r\^{o}le]
             \Role
               • \label{Role} Role = R\hat{o}le
             862 \mbox{ \cmdtxtabr{Role}[R\^{o}le]}
             \aka
               864 \cmdtxtabr{aka}[a.k.a.\@]
       \contd
               • \contd = contd.
             865 \cmdtxtabr{contd}[contd.\@]
               • \setminus iff = iff
         \iff
             866 \cmdtxtabr{iff}
               • \iht = i.h.t.
         \iht
             867 \cmdtxtabr{iht}[i.h.t.\@]
```

```
\stx
                      • \ \ \ \ stx = s.t.
                  868 \cmdtxtabr{stx}[s.t.\@]
     \resp
                      • \resp = resp.
                  869 \cmdtxtabr{resp}[resp.\@]
       \wrt
                      870 \cmdtxtabr{wrt}[w.r.t.\@]
    \wlogx
                      • \wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\wordsymbol{\w
                  871 \cmdtxtabr{wlogx}[w.l.o.g.\@]
                  \Contd
                      • \Contd = Contd.
                  873 \cmdtxtabr{Contd}[Contd.\@]
   \Wlogx
                      • \W log x = W.l.o.g.
                  874 \cmdtxtabr{Wlogx}[W.l.o.g.\@]
                  880 \ifmth@
                  \defeq ...
    \seteq 882 \DeclareRobustCommand{\defeq}
                  883
                          {\@ifstar%
                  884
                               {\bf \{\text{\textup{def}}\}{=}}}%
                  885
                               {\mthlbop{\triangleq}}}
                  886 \DeclareRobustCommand{\seteq}
                          {\@ifstar{\mthlbop{\Coloneqq}}}{\mthlbop{\coloneqq}}}
                  \limp ...
         · · · 889 \DeclareRobustCommand{\limp}
                  890 {\mthlbop{\rightarrow}}
 \lcoimp ...
         · · · 891 \DeclareRobustCommand{\lcoimp}
                         {\mthlbop{\leftrightarrow}}
                  \implies ...
                 894 \DeclareRobustCommand{\implies}
                         {\mthlrel{\Rightarrow}}
                  896 \DeclareRobustCommand{\notimplies}
                 897 {\mthlrel{\not\Rightarrow}}
\implied ...
         · · · 898 \DeclareRobustCommand{\implied}
                  899 {\mthlrel{\Leftarrow}}
                  900 \DeclareRobustCommand{\notimplied}
                  901 {\bf \{\not\Leftarrow\}}
```

```
\coimplies ...
      ••• 902 \DeclareRobustCommand{\coimplies}
          903 {\mthlrel{\Leftrightarrow}}
          904 \DeclareRobustCommand{\notcoimplies}
          905 {\bf \{not}\
          \cmodels ...
          907 \DeclareRobustCommand{\cmodels}
          908 {\mthlrel{\models}}
          909 \DeclareRobustCommand{\notcmodels}
          910 {\mthlrel{\not\models}}
   \cequiv ...
      ··· 911 \DeclareRobustCommand{\cequiv}
          912 {\mthlrel{\equiv}}
          913 \DeclareRobustCommand{\notcequiv}
          914 {\mthlrel{\not\equiv}}
          \denot ...
          916 \DeclareRobustCommand{\denot}
          917 {\@ifstar{\@sdenot}{\@denot}}
          918 \DeclareRobustCommand{\@denot}[1]
             {\mth{\argmid{\left\llbracket}{#1}{\right\rrbracket}}}
          920 \DeclareRobustCommand{\@sdenot}[1]
             {\mth*{\argmid{\llbracket}{#1}{\rrbracket}}}
          \dual ...
     \adj 923 \DeclareRobustCommand{\dual}[1]
      \dots 924 {\mth{\overline{#1}}}
          925 \DeclareRobustCommand{\adj}[1]
          926 {\mth{\mathring{#1}}}
          927 \DeclareRobustCommand{\der}[1]
          928 {\mth{\widehat{#1}}}
          929 \DeclareRobustCommand{\trn}[1]
          930 {\mth{\widetilde{#1}}}
      \vec ...
          931 \DeclareRobustCommand{\vec}
          932 {\c}^{0} {\\ 0 if star{\\ 0 svec}{\\ 0 vec}}
          933 \DeclareRobustCommand{\@vec}[1]
          934 {\bf 1}
          935 \DeclareRobustCommand{\@svec}[1]
          936 {\mth{\overline{#1}}}
          \enumeration ...
          938 \varcmd{enumeration}{\mth*}{}{,}{}}
          \sequence ...
          940 \DeclareRobustCommand{\sequence}
          941 {\@ifstar{\@ssequence}{\@sequence}}
          943 \ \c){\{0,\}{\}}}
          944 \DeclareRobustCommand{\sequencel}
             {\@ifstar{\@ssequencel}{\@sequencel}}
          946 \varcmd{@sequencel}{\mth}{\left[}{,}{\right.}{}
```

```
947 \varcmd{@ssequencel}{\mth*}{[]{,}{}}
       948 \DeclareRobustCommand{\sequencer}
       949 {\@ifstar{\@ssequencer}{\@sequencer}}
       950 \varcmd{@sequencer}{\mth}{\left.}{,}{\right]}{}
       951 \varcmd{@ssequencer}{\mth*}{}{,}{]}{}
       952 \DeclareRobustCommand{\sequencex}
       953 {\@ifstar{\@ssequencex}{\@sequencex}}
       954 \varcmd{@sequencex}{\mth}{\left[}{;}{\right]}{}
       955 \varcmd{@ssequencex}{\mth*}{[]{;}{]}{}
       956 \DeclareRobustCommand{\sequencex1}
            {\@ifstar{\@ssequencexl}{\@sequencexl}}
       958 \varcmd{@sequencexl}{\mth}{\left[}{;}{\right.}{}
       959 \varcmd{@ssequencex1}{\mth*}{[]{;}{}}
       960 \DeclareRobustCommand{\sequencexr}
           {\@ifstar{\@ssequencexr}{\@sequencexr}}
       962 \varcmd{@sequencexr}{\mth}{\left.}{;}{\right]}{}
       963 \varcmd{@ssequencexr}{\mth*}{}{;}{]}{}
\tuple ...
  . . .
       964 \DeclareRobustCommand{\tuple}
       965 {\@ifstar{\@stuple}{\@tuple}}
       966 \varcmd{Otuple}{\mth}{\left\langle}{,}{\right\rangle}{}
       967 \varcmd{@stuple}{\mth*}{\langle}{,}{\rangle}{}
       968 \DeclareRobustCommand{\tuplel}
           {\@ifstar{\@stuplel}{\@tuplel}}
       970 \varcmd{@tuplel}{\mth}{\left\langle}{,}{\right.}{}
       971 \varcmd{@stuplel}{\mth*}{\langle}{,}{}}
       972 \DeclareRobustCommand{\tupler}
            {\@ifstar{\@stupler}{\@tupler}}
       975 \varcmd{@stupler}{\mth*}{}{,}{\rangle}{}
       976 \DeclareRobustCommand{\tuplex}
            {\@ifstar{\@stuplex}{\@tuplex}}
       978 \c {\tt Qtuplex}{\tt hth}{\tt left\langle}{\tt;}{\tt right\rangle}{\tt}
       979 \varcmd{@stuplex}{\mth*}{\langle}{;}{\rangle}{}
       980 \DeclareRobustCommand{\tuplex1}
            {\@ifstar{\@stuplexl}}
       982 \varcmd{@tuplexl}{\mth}{\left\langle}{;}{\right.}{}
       983 \ \ensuremath{\mth*}{\ngle}{;}{}{}
       984 \DeclareRobustCommand{\tuplexr}
       985 {\@ifstar{\@stuplexr}{\@tuplexr}}
       986 \varcmd{@tuplexr}{\mth}{\left.}{;}{\right\rangle}{}
       987 \ \ensuremath{\mth*}{}{;}{\ngle}{}
       \set ...
       989 \DeclareRobustCommand{\set}
           {\@ifstar{\@sset{\vert}}{\@set{\vert}}}
       991 \DeclareRobustCommand{\setx}
           {\@ifstar{\@sset{:}}{\@set{.\!:}}}
       993 \DeclareRobustCommand{\@set}[3]
           {\bf \{\nth{\argmid{\left(\hr}\hr}_{\#3}}_{\r}}} $$
       995 \DeclareRobustCommand{\@sset}[3]
           {\mth*{\argmid{\lbrace}{\argsep{#2}{\,#1\,}{#3}}{\rbrace}}}
       997 \DeclareRobustCommand{\set1}
           {\@ifstar{\@ssetl{\vert}}{\@setl{\vert}}}
       999 \DeclareRobustCommand{\setlx}
           {\@ifstar{\@ssetl{:}}{\@setl{.\!\!\!:}}}
      1001 \DeclareRobustCommand{\@set1}[2]
          {\mth{\argmid{\left\lbrace}{#2}{\,\right#1\!}}}
      1003 \DeclareRobustCommand{\@sset1}[2]
          {\mth*{\argmid{\lbrace}{#2}{\,#1\!}}}
      1005 \DeclareRobustCommand{\setr}
```

```
{\@ifstar{\@ssetr}{\@setr}}
       1007 \DeclareRobustCommand{\setrx}
           {\@ifstar{\@ssetr}{\@setr}}
       1009 \DeclareRobustCommand{\@setr}[1]
       1010 {\bf \{\d{\deft.}}{\#1}{\dot\drum}
       1011 \DeclareRobustCommand{\@ssetr}[1]
       1012 {\bf \{\mbox{\mbox{$1$}}}
   \card ...
       1013 \DeclareRobustCommand{\card}
       1014 \quad {\c {\c card} {\c card}}
       1015 \DeclareRobustCommand{\@card}[1]
           {\mth{\argmid{\left\lvert}{#1}{\right\rvert}}}
       1017 \DeclareRobustCommand{\@scard}[1]
           {\mth*{\argmid{\lvert}{#1}{\rvert}}}
   \pow ...
       1019 \DeclareRobustCommand{\pow}[1]
           {\bf 2^{\hat 1}}{\cdot}}
       \emptyrel ...
       1022 \DeclareRobustCommand{\emptyrel}
           {\mth{\varnothing}}
       \dom ...
   \verb|\cod $_{1025} \| $$ \cod $_{1025} \
    \dots 1026 \usrmth{cod}{}{argfun}
       1027 \usrmth{rng}{}{argfun}
       1028 \usrmth{img}{}{argfun}
   \deg ...
       1029 \mbox{ }\mbox{deg}{{\mbox{argfun}}}
       \prj ...
       1031 \DeclareRobustCommand{\prj}
       1032 {\mthlbop{\downarrow}}
   \rst ...
       1033 \DeclareRobustCommand{\rst}
           {\mthlbop{\upharpoonright}}
   \cmp ...
       1035 \DeclareRobustCommand{\cmp}
           {\mthlbop{\circ}}
       \emptyfun ...
       1038 \verb|\DeclareRobustCommand{\emptyfun}|
           {\mth{\varnothing}}
       \pto ...
\pmapsto 1041 \DeclareMathOperator{\pto}
           {\ensuremath{\rightharpoonup}}
       1043 \DeclareMathOperator{\pmapsto}
       1044
           {\ensuremath{\mathrel{\raisebox{0.5ex}{\footnotesize${\llcorner}$}%
       1045
              \kern-1.5ex\rightharpoonup}}}
```

```
\fix ...
            \ifp _{1047} \usrmth{fix}{}{fun}
               \cdots 1048 \usrmth{ifp}{}{fun}
                         1049 \mbox{ \norm}{10}
                         1050 \mbox{ }\mbox{usrmth} \{gfp\} \{\} \{fun\}
                         \Aomega ...
     \verb|AOmega|_{1052} \le $1052 \le 1052 \le 1
                         1053 \usrmth{AOmega}{}{argset}[\Omega]
    \Atheta ...
     1055 \usrmth{ATheta}{}{argset}[\Theta]
\Aomicron ...
               \cdots \ 1056 \ \texttt{\Aomicron}{\{\}\{\texttt{argset}\}[\texttt{\comicron}]}
                         1057 \usrmth{AOmicron}{}{argset}[\Omicron]
                         \SetB ...
                         1059 \DeclareRobustCommand{\SetB}
                                      {\mthset[mathbb]{B}}
         \SetF ...
                         1061 \DeclareRobustCommand{\SetF}
                                      {\mthset[mathbb]{F}}
         \SetN ...
               ··· 1063 \DeclareRobustCommand{\SetN}
                         1064 \quad \{\text{mthset[mathbb]}\{N\}\}
                         1065 \DeclareRobustCommand{\SetNI}[1][]
                         1066 {\SetN[\infty #1]}
         \SetZ ...
               ··· 1067 \DeclareRobustCommand{\SetZ}
                         1068 {\mthset[mathbb]{Z}}
                         1069 \DeclareRobustCommand{\SetZI}[1][]
                        1070 {\SetZ[\pm\infty #1]}
                         1071 \DeclareRobustCommand{\SetZPI}[1][]
                         1072 {\SetZ[+\infty #1]}
                         1073 \DeclareRobustCommand{\SetZNI}[1][]
                        1074 {\SetZ[-\infty #1]}
         \SetQ ...
               · · · 1075 \DeclareRobustCommand{\SetQ}
                         1076 {\mthset[mathbb]{Q}}
                         1077 \DeclareRobustCommand{\SetQI}[1][]
                                     {\SetQ[\pm\infty #1]}
                         1079 \DeclareRobustCommand{\SetQPI}[1][]
                                     {\SetQ[+\infty #1]}
                         1081 \DeclareRobustCommand{\SetQNI}[1][]
                        1082 {\SetQ[-\infty #1]}
         \SetR ...
               · · · 1083 \DeclareRobustCommand{\SetR}
                         1084 {\mthset[mathbb]{R}}
                         1085 \verb|\DeclareRobustCommand{\SetRI}[1][]
                         1086 {\SetR[\pm\infty #1]}
```

```
1087 \DeclareRobustCommand{\SetRPI}[1][]
          {\SetR[+\infty #1]}
      1089 \DeclareRobustCommand{\SetRNI}[1][]
      1090 {\SetR[-\infty #1]}
\SetC ...
  ··· 1091 \DeclareRobustCommand{\SetC}
          {\mthset[mathbb]{C}}
      1093 \DeclareRobustCommand{\SetCI}[1][]
      1094 {\SetC[\infty #1]}
      \num ...
  \cdots \ 1096 \label{loss_loss_command_num} \ [1]
          {\mth{[#1]}}
      1098 \DeclareRobustCommand{\numcc}[2]
          {\mth{[\argsep{#1}{,}{#2}]}}
      1100 \DeclareRobustCommand{\numco}[2]
          {\mth{[\argsep{#1}{,}{#2})}}
     1102 \DeclareRobustCommand{\numoc}[2]
     1103 {\mth{(\argsep{#1}{,}{#2}]}}
      1104 \DeclareRobustCommand{\numoo}[2]
          {\mth{(\argsep{#1}{,}{#2})}}
      \abs ...
\verb|\norm||_{1107} \verb|\DeclareRobustCommand{\abs}|
     1108 {\@ifstar{\@sabs}{\@abs}}
      1109 \DeclareRobustCommand{\@abs}[1]
     1110 {\mth{\argmid{\left\lvert}{#1}{\right\rvert}}}
     1111 \DeclareRobustCommand{\@sabs}[1]
     1112 {\mth*{\argmid{\lvert}{#1}{\rvert}}}
      1113 \DeclareRobustCommand{\norm}
          {\@ifstar{\@snorm}{\@norm}}
      1115 \DeclareRobustCommand{\@norm}[1]
      1116 {\mth{\argmid{\left\lVert}{#1}{\right\rVert}}}
      1117 \DeclareRobustCommand{\@snorm}[1]
          {\mth*{\argmid{\lVert}{#1}{\rVert}}}
\floor ...
\ceil 1119 \DeclareRobustCommand{\floor}
          {\@ifstar{\@sfloor}{\@floor}}
      1121 \DeclareRobustCommand{\@floor}[1]
      1122 {\mth{\argmid{\left\lfloor}{#1}{\right\rfloor}}}
      1123 \DeclareRobustCommand{\@sfloor}[1]
          {\mth*{\argmid{\lfloor}{#1}{\rfloor}}}
      1125 \DeclareRobustCommand{\ceil}
      1126 {\c}^{\c} 
      1127 \DeclareRobustCommand{\@ceil}[1]
     1128 {\mth{\argmid{\left\lceil}{#1}{\right\rceil}}}
      1129 \DeclareRobustCommand{\@sceil}[1]
          {\mth*{\argmid{\lceil}{#1}{\rceil}}}
      \arg ...
     1132 \usrmth{arg}{}{fun}
 \evn ...
 \odd _{1133} \usrmth{evn}{}{fun}
     1134 \usrmth{odd}{}{fun}
```

```
\bst ...
                          \cdots 1135 \usrmth{bst}{}{fun}
                                    1136 \usrmth{argbst}{}{fun}[arg\,bst]
                       \min ...
                       \label{local_state} $\max_{1137} \operatorname{local_min}{{\rm sin}}{{\rm sin}} = {\rm sin}{{\rm sin}} = {\rm sin}
                          ... 1138 \usrmth{max}{}{fun}
                                    1139 \usrmth{argmin}{}{fun}[arg\,min]
                                    1140 \usrmth{argmax}{}{fun}[arg\,max]
                       \inf ...
                       \sup_{1141} \operatorname{usrmth\{inf}{\{}fun\}
                                    1142 \usrmth{sup}{}{fun}
                       \gcd ...
                       \label{lower} $\lim_{1143 \in \mathbb{R}^{3}} \left( \frac{1}{gcd} \right) = 0.
                                    1144 \usrmth{lcm}{}{fun}
                                    \emptyseq ...
                                    1146 \DeclareRobustCommand{\emptyseq}
                                    1147 {\mth{\varepsilon}}
                       \len ...
                                    1148 \DeclareRobustCommand{\len}
                                    1149 {\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\crine{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\cline{\
                                    1150 \DeclareRobustCommand{\@len}[1]
                                    1151 {\mth{\argmid{\left\lvert}{#1}{\right\rvert}}}
                                    1152 \DeclareRobustCommand{\@slen}[1]
                                    1153 {\mth*{\argmid{\lvert}{#1}{\rvert}}}
                       \fst ...
                       \lst _{1154} \usrmth{fst}{}{argfun}
                                    1155 \usrmth{lst}{}{argfun}
                                    1156 \fi
                                    1161 \ifcom@
        \defcomcls ... to do!
                                             • \defcomcls{CompClass};
                                                 \CompClass[sub][sup][arg] = COMPCLASS_{SUB}^{SUP}(ARG)
                                             • \defcomcls{CompClass}[NewClass];
                                                 \compClass[sub][sup][arg] = NewClass_{SUB}^{SUP}(ARG)
                                     1162 \newcommandx{\defcomcls}[2][2=]
                                    1163 {\csdef{#1}{\txtoargcom{\defval{#2}{#1}}}}
\verb|\defcomclsgrp| \dots \ to \ do!
                                             \defcomclsgrp{CompClass};
                                                  \CompClass[sub][sup][arg] = COMPCLASS_{SUB}^{SUP}(ARG)
                                                  \CoCompClass[sub][sup][arg] = CoCompCLASS_{SUB}^{SUP}(ARG)
                                                  \verb|\CompClassE[sub][sup][arg]| = CompClass-Easy_{SUB}^{SUB}(ARG)
                                                  \CoCompClassE[sub][sup][arg] = CoCompClass-Easy_{SUB}^{SUP}(ARG)
                                                  \label{loss-hard-sub} $$ \operatorname{CompClassH[sub][sup][arg]} = \operatorname{CompClass-hard-Sup}_{SUB}(\operatorname{ARG}) $$
```

```
\CoCompClassH[sub][sup][arg] = CoCompClass-Hard_{SUB}^{SUP}(ARG)
   \label{lossC} $$ \operatorname{CompClassC[sub][sup][arg]} = \operatorname{COMPCLASS-COMPLETE}^{SUP}_{SUB}(ARG) 
   \CoCompClassC[sub][sup][arg] = CoCompClass-Complete_{SUB}^{SUP}(ARG)
  \verb|\DCompClass[sub][sup][arg]| = DCompClass[sup](Arg)
   \CoDCompClass[sub][sup][arg] = CoDCompCLASS_{SUB}^{SUP}(ARG)
   \verb|\DCompClassE[sub][sup][arg]| = DCompClass-easy_{SUB}^{SUP}(ARG)
   \verb|\CodCompClassE[sub][sup][arg]| = CodCompClass-easy^{SUP}_{SUB}(ARG)
   \label{eq:decompClassH} $$\D{\compClassHard}_{SuB}[sub][sup] = DCOMPCLASS-HARD_{SUB}^{SUP}(ARG)$
   \verb|\CoDCompClassH[sub][sup][arg]| = CoDCompClass-Hard_{SUB}^{SUP}(ARG)
   \verb|\DCompClassC[sub][sup][arg]| = DCompClass-complete_{SuB}^{SUP}(ARG)
   \CoDCompClassC[sub][sup][arg] = CoDCompClass-Complete_{SUB}^{SUP}(ARG)
  \label{eq:ncompClass} $$ [\sup] [arg] = NCOMPCLASS_{SUB}^{SUP}(ARG) $$
   \verb|\CoNCompClass[sub][sup][arg]| = CoNCompClass_{SUB}^{SUP}(ARG)
  \verb|\NCompClassE[sub][sup][arg]| = NCOMPCLASS-EASY_{SUB}^{SUP}(ARG)
   \verb|\ConCompClassE[sub][sup][arg]| = ConCompClass-Easy_{SUB}^{SUP}(ARG)
  \N{\c CompClassH[sub][sup][arg]} = N{\c CompClass-Hard}_{SUB}^{SUP}(ARG)
   \ConCompClassH[sub][sup][arg] = ConCompClass-Hard_{SUB}^{SUP}(Arg)
   \NCompClassC[sub][sup][arg] = NCOMPCLASS-COMPLETE_{SUB}^{SUP}(ARG)
  \ConCompClassC[sub][sup][arg] = ConCompClass-CompLete_{SUB}^{SUP}(ARG)
   \UCompClass[sub][sup][arg] = UCompCLass_{SUB}^{SUP}(ARG)
   \Coulomb Class[sub][sup][arg] = Coulomb Class_{SUB}^{SUP}(ARG)
   \UCompClassE[sub][sup][arg] = UCompClass-Easy_{SUB}^{SUP}(ARG)
   \verb|\CoUCompClassE[sub][sup][arg]| = CoUCompClass-Easy_{SUB}^{SUP}(ARG)
   \UCompClassH[sub][sup][arg] = UCompClass-Hard_{SUB}^{SUP}(Arg)
   \verb|\CoUCompClassH[sub][sup][arg]| = CoUCompClass-Hard_{Sub}^{SUP}(ARG)
   \Coultberry Coultberry Coultber
   \triangle CompClass[sub][sup][arg] = ACOMPCLASS_{SUB}^{SUP}(ARG)
   \verb|\CoACompClass[sub][sup][arg]| = CoACompClass_{SUB}^{SUP}(ARG)
   \verb|\ACompClassE[sub][sup][arg]| = ACOMPCLASS-EASY_{SUB}^{SUP}(ARG)
   \verb|\CoACompClassE[sub][sup][arg]| = CoACompClass-Easy_{SuB}^{SUP}(ARG)
   \verb|\ACompClassH[sub][sup][arg]| = ACOMPCLASS-HARD_{SUB}^{SUP}(ARG)
   \CoACompClassH[sub][sup][arg] = CoACompClass-Hard_{SUB}^{SUP}(ARG)
   \triangle CompClassC[sub][sup][arg] = ACOMPCLASS-COMPLETE_{SUB}^{SUP}(ARG)
   \verb|\CoACompClassC[sub][sup][arg]| = CoACompClass-complete_{SUB}^{SUP}(ARG)
\defcomclsgrp{CompClass}[NewClass];
   \CompClass[sub][sup][arg] = NEWCLASS_{SUB}^{SUP}(ARG)
   \verb|\CoCompClass[sub][sup][arg]| = CoNewClass_{SUB}^{SUP}(ARG)
   \compClassE[sub][sup][arg] = NewClass-easy_{SUB}^{SUP}(ARG)
   \verb|\CoCompClassE[sub][sup][arg]| = CoNewClass-easy_{sub}^{SUP}(ARG)
   \verb|\CompClassH[sub][sup][arg]| = NewClass-Hard_{SUB}^{SUP}(ARG)
   \CoCompClassH[sub][sup][arg] = CoNewClass-Hard_{SUB}^{SUP}(Arg)
   \label{eq:compClassC} $$\operatorname{CompClassC[sub][sup][arg]} = \operatorname{NewClass-complete}_{\operatorname{Sub}}^{\operatorname{SUP}}(\operatorname{ARG})$
  \verb|\CoCompClassC[sub][sup][arg]| = \operatorname{CoNewClass-complete}_{SUB}^{SUP}(ARG)
  \DCompClass[sub][sup][arg] = DNEWCLASS_{SUB}^{SUP}(ARG)
   \verb|\CoDCompClass[sub][sup][arg]| = CoDNewClass_{SUB}^{SUP}(ARG)
   \DCompClassE[sub][sup][arg] = DNEWCLASS-EASY_{SUB}^{SUP}(ARG)
   \CodCompClassE[sub][sup][arg] = CodNewClass-Easy_{SUB}^{SUP}(ARG)
   \label{eq:decompClassH} $$\DCompClassH[sub][sup][arg] = DNEWCLASS-HARD_{SUB}^{SUP}(ARG)$
   \verb|\CoDCompClassH[sub][sup][arg]| = CoDNewClass-Hard_{SUB}^{SUP}(ARG)
   \label{eq:decompClassC} $$\D{\compClassC[sub][sup][arg]} = DNEWCLASS-COMPLETE_{SUB}^{SUP}(ARG)
   \CodCompClassC[sub][sup][arg] = CodNewClass-Complete_{SUB}^{SUP}(ARG)
  \verb|\NCompClass[sub][sup][arg]| = NNEWCLASS_{SUB}^{SUP}(ARG)
   \ConCompClass[sub][sup][arg] = ConNewClass_{SUB}^{SUP}(ARG)
   \verb|\NCompClassE[sub][sup][arg]| = NNEWCLASS-EASY_{SUB}^{SUP}(ARG)
   \verb|\CoNCompClassE[sub][sup][arg]| = CoNNewClass-EASY_{SUB}^{SUP}(ARG)
   \NCompClassH[sub][sup][arg] = NNEWCLASS-HARD_{SUB}^{SUP}(ARG)
```

```
\ConCompClassH[sub][sup][arg] = ConNewClass-Hard_{SUB}^{SUP}(Arg)
                              \verb|\NCompClassC[sub][sup][arg]| = NNewClass-complete_{Sub}^{SUP}(ARG)
                              \ConCompClassC[sub][sup][arg] = ConNewClass-CompLete_{SUB}^{SUP}(ARG)
                             \verb|\UCompClass[sub][sup][arg]| = UNEWCLASS^{SUP}_{SUB}(ARG)
                             \texttt{CoUCompClass[sub][sup][arg]} = CoUNEWCLASS_{SUB}^{SUP}(ARG)
                             \label{eq:UCompClassE[sub] sup of the complex of 
                             \verb|\CoUCompClassE[sub][sup][arg]| = CoUNewClass-easy_{SUB}^{SUP}(ARG)
                             \label{eq:UCompClassH} $$ \UCompClassH[sub] [sup] [arg] = UNEWCLASS-HARD_{SUB}^{SUP}(ARG) $$
                              \verb|\CoUCompClassH[sub][sup][arg]| = CoUNEWCLASS-HARD_{SUB}^{SUP}(ARG)
                              \label{eq:union_loss} $$ \UCompClassC[sub][sup][arg] = UNEWCLASS-COMPLETE_{SUB}^{SUP}(ARG) $$
                              \CoUCompClassC[sub][sup][arg] = CoUNEWCLASS-COMPLETE_{SUB}^{SUP}(ARG)
                             \verb|\ACompClass[sub][sup][arg]| = ANEWCLASS_{SUB}^{SUP}(ARG)
                              \CoACompClass[sub][sup][arg] = CoANEWCLASS_{SUB}^{SUP}(ARG)
                             \label{eq:accompClassE} $$ \Delta CompClassE[sub][sup][arg] = ANEWCLASS-EASY_{SUB}^{SUP}(ARG) $$
                             \CoACompClassE[sub][sup][arg] = CoANEWCLASS-EASY_{SUB}^{SUP}(ARG)
                             \Lambda CompClassH[sub][sup][arg] = ANEWCLASS-HARD_{SUB}^{SUP}(ARG)
                             \CoACompClassH[sub][sup][arg] = CoANewClass-Hard_{SUB}^{SUP}(Arg)
                              \ACompClassC[sub][sup][arg] = ANEWCLASS-COMPLETE_{SUB}^{SUP}(ARG)
                             \CoACompClassC[sub][sup][arg] = CoANEWCLASS-COMPLETE_{SUB}^{SUP}(ARG)
                    1164 \newcommandx{\defcomclsgrp}[2][2=]
                    1165
                                {\displaystyle \{ \cdot \}_{i=1}^{t} }
                                \defcomclsgrpsem{#1}{\defval{#2}{#1}}[Co]}
                    1166
                    1167 \newcommandx{\defcomclsgrpsem}[3][3=]
                    1168
                               {\defcomclsgrpred{#3#1}{#2}[#3]%
                    1169
                               \defcomclsgrpred{#3D#1}{#2}[#3D]%
                    1170
                               1171
                                \defcomclsgrpred{#3U#1}{#2}[#3U]%
                    1172
                               \defcomclsgrpred{#3A#1}{#2}[#3A]}
                    1173 \newcommandx{\defcomclsgrpred}[3][3=]
                    1174
                               {\defcomclsgrpcmd{#1}{#2}[#3]%
                    1175
                               \defcomclsgrpcmd{#1E}{#2}[#3][-easy]%
                    1176
                               \defcomclsgrpcmd{#1H}{#2}[#3][-hard]%
                               \defcomclsgrpcmd{#1C}{#2}[#3][-complete]}%
                    1178 \newcommandx{\defcomclsgrpcmd}[4][3=, 4=]
                               {\csdef{#1}{\txtoargcom{#3#2#4}}}
\defcomhrc ... to do!
                          • \defcomhrc{CompHierarchy};
                              CompHierarchy[sub][sup][par] = COMPHIERARCHY<sup>SUP</sup><sub>SUB</sub>[PAR]
                          \defcomhrc{CompHierarchy} [NewHierarchy];
                              CompHierarchy[sub][sup][par] = NEWHIERARCHY<sup>SUP</sup>[PAR]
                    1180 \newcommandx{\defcomhrc}[2][2=]
                               {\csdef{#1}{\txtoparcom{\defval{#2}{\#1}}}}
                    \Easy
        \Hard 1183 \cmdtxtcom{Easy}
             ... 1184 \cmdtxtcom{Hard}
                    1185 \cmdtxtcom{Complete}
                    • \FPT[sub][sup][arg] = FPT_{SUB}^{SUP}(ARG)
           \FPT
                          • \FPLin[sub][sup][arg] = FPL_{SUB}^{SUP}(ARG)
                          • \FPQdr[sub][sup][arg] = FPQ_{SUB}^{SUP}(ARG)
```

```
• \FPCub[sub][sup] [arg] = FPC_{SUB}^{SUP}(ARG)
           1187 \defcomcls{FPT}
           1188 \defcomcls{FPLin}[FPL]
           1189 \defcomcls{FPQdr}[FPQ]
           1190 \ensuremath{ \mbox{\mbox{defcomcls{FPCub}}[FPC]} }
           • Time[sub][sup][arg] = TIME_{SUB}^{SUP}(ARG)
    \Time
                  TimeE[sub][sup][arg] = TIME-EASY_{SUB}^{SUP}(ARG)
      . . .
                  TimeH[sub][sup][arg] = TIME-HARD_{SUB}^{SUP}(ARG)
                  TimeC[sub][sup][arg] = TIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \DTime[sub][sup][arg] = DTIME_{SUB}^{SUP}(ARG)
                  \DTimeE[sub][sup][arg] = DTIME-EASY_{SUB}^{SUP}(ARG)
                  \DTimeH[sub][sup][arg] = DTIME-HARD_{SUB}^{SUP}(ARG)
                  \texttt{DTimeC[sub][sup][arg]} = DTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \NTime[sub][sup][arg] = NTIME_{SUB}^{SUP}(ARG)
                  \NTimeE[sub][sup][arg] = NTIME-EASY_{SUB}^{SUP}(ARG)
                  \NTimeH[sub][sup][arg] = NTIME-HARD_{SUB}^{SUP}(ARG)
                  \TimeC[sub][sup][arg] = NTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \UTime[sub][sup][arg] = UTIME_{SUB}^{SUP}(ARG)
                  \verb|\UTimeE[sub][sup][arg]| = UTIME-EASY_{SUB}^{SUP}(ARG)
                  \UTimeH[sub][sup][arg] = UTIME-HARD_{SUB}^{SUP}(ARG)
                  \UTimeC[sub][sup][arg] = UTIME-COMPLETE_{SUB}^{SUP}(ARG)
                \bullet \ \texttt{\ATime[sub][sup][arg]} = \mathrm{ATime}^{\mathrm{SUP}}_{\mathrm{SUB}}(\mathrm{ARG})
                  \texttt{\ATimeE[sub][sup][arg]} = \text{ATIME-EASY}^{\text{SUP}}_{\text{SUB}}(\text{ARG})
                  \verb|\ATimeH[sub][sup][arg]| = ATIME-HARD_{SUB}^{SUP}(ARG)
                  \Delta TimeC[sub][sup][arg] = ATIME-COMPLETE_{SUB}^{SUP}(ARG)
           1192 \defcomclsgrp{Time}
                • Space[sub][sup][arg] = Space[Sub](ARG)
  \Space
                  \SpaceE[sub][sup][arg] = SPACE-EASY_{SUB}^{SUP}(ARG)
                  \SpaceH[sub][sup][arg] = SPACE-HARD_{SUB}^{SUP}(ARG)
                  \SpaceC[sub][sup][arg] = SPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • DSpace[sub][sup][arg] = DSPACE_{SUB}^{SUP}(ARG)
                  \verb|\DSpaceE[sub][sup][arg]| = \mathrm{DSPACE\text{-}EASY}^{SUP}_{SUB}(\mathrm{ARG})
                  \DSpaceH[sub][sup][arg] = DSPACE-HARD_{SUB}^{SUP}(ARG)
                  \texttt{DSpaceC[sub][sup][arg]} = DSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \NSpace[sub][sup][arg] = NSPACE_{SUB}^{SUP}(ARG)
                  \verb|\NSpaceE[sub][sup][arg]| = NSPACE-EASY_{SUB}^{SUP}(ARG)
                  \NSpaceH[sub][sup][arg] = NSPACE-HARD_{SUB}^{SUP}(ARG)
                  \verb|\NSpaceC[sub][sup][arg]| = NSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • USpace[sub][sup][arg] = USPACE_{SUB}^{SUP}(ARG)
                  \verb|VSpaceE[sub][sup][arg]| = USPACE-EASY_{SUB}^{SUP}(ARG)
                  \verb|\USpaceH[sub][sup][arg]| = USPACE-HARD_{SUB}^{SUP}(ARG)
                  \verb|VSpaceC[sub][sup][arg]| = USPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • ASpace[sub][sup][arg] = ASPACE_{SUB}^{SUP}(ARG)
                  ASpaceE[sub][sup][arg] = ASPACE-EASY_{SUB}^{SUP}(ARG)
                  ASpaceH[sub][sup][arg] = ASPACE-HARD_{SUB}^{SUP}(ARG)
                  ASpaceC[sub][sup][arg] = ASPACE-COMPLETE_{SUB}^{SUP}(ARG)
           1193 \defcomclsgrp{Space}
\LogTime
                 \bullet \ \texttt{\logTime[sub][sup][arg]} = \mathrm{LogTime}^{\mathrm{SUP}}_{\mathrm{SUB}}(\mathrm{Arg}) 
                  \verb|\LogTimeE[sub][sup][arg]| = \operatorname{LOGTIME-EASY}^{SUP}_{SUB}(ARG)
                  \LogTimeH[sub][sup][arg] = LogTime-Hard_{SUB}^{SUP}(Arg)
                  \lceil LogTimeC[sub][sup][arg] = LogTime-Complete_{SUB}^{SUP}(ARG)
                • \DLogTime[sub][sup][arg] = DLogTime_{SUB}^{SUP}(ARG)
                  \label{eq:decomposition} $$\DLogTimeE[sub][sup][arg] = DLogTime-EASY_{SUB}^{SUP}(ARG)$
                  \texttt{DLogTimeH[sub][sup][arg]} = DLogTime-Hard_{SUB}^{SUP}(ARG)
```

 $\DLogTimeC[sub][sup][arg] = DLOGTIME-COMPLETE_{SUB}^{SUP}(ARG)$ 

```
• \NLogTime[sub][sup][arg] = NLogTime_{SUB}^{SUP}(ARG)
                  \verb|\NLogTimeE[sub][sup][arg]| = NLogTime-EASY_{SUB}^{SUP}(ARG)
                  \verb|\NLogTimeH[sub][sup][arg]| = NLogTime-Hard_{SUB}^{SUP}(ARG)
                  \NLogTimeC[sub][sup][arg] = NLogTime-Complete_{SUB}^{SUP}(ARG)
                • \ULogTime[sub][sup][arg] = ULogTime_{SUB}^{SUP}(ARG)
                  \label{eq:ULogTimeEsub} $$ \ULogTimeE[sub] [sup] [arg] = ULogTime-EASY_{SUB}^{SUP}(ARG) $$
                  \verb|\ULogTimeH[sub][sup][arg]| = ULogTime-HARD_{SUB}^{SUP}(ARG)
                  \ULogTimeC[sub][sup][arg] = ULogTime-COMPLETE_{SUB}^{SUP}(ARG)
                • ALogTime[sub][sup][arg] = ALogTime_{SUB}^{SUP}(ARG)
                  \verb|\ALogTimeE[sub][sup][arg]| = ALogTime-EASY_{SUB}^{SUP}(ARG)
                  \ALogTimeH[sub][sup][arg] = ALogTime-Hard_{SUB}^{SUP}(ARG)
                  \Delta LogTimeC[sub][sup][arg] = ALogTime-Complete_{SUB}^{SUP}(ARG)
            1194 \defcomclsgrp{LogTime}
                • \lfloor LogSpace[sub][sup][arg] = LogSpace_{SUB}^{SUP}(ARG)
\LogSpace
                  \LogSpaceE[sub][sup][arg] = LogSpace-Easy_{SUB}^{SUP}(ARG)
                  \verb|\LogSpaceH[sub][sup][arg]| = \operatorname{LogSpace-Hard}_{SUB}^{SUP}(ARG)
                  LogSpaceC[sub][sup][arg] = LogSpace-Complete_{Sub}^{SUP}(ARG)
                • DLogSpace[sub][sup][arg] = DLogSpace_{SUB}^{SUP}(ARG)
                  \label{eq:decomposition} $$\DLogSpaceE[sub][sup][arg] = DLogSpace-Easy_{SUB}^{SUP}(ARG)$
                  \label{eq:decomposition} $$\DLogSpaceH[sub][sup][arg] = DLogSpace-HARD_{SUB}^{SUP}(ARG)$
                  \DLogSpaceC[sub][sup][arg] = DLogSpace-Complete_{SUB}^{SUP}(ARG)
                • \NLogSpace[sub][sup][arg] = NLogSpace_{SUB}^{SUP}(ARG)
                  \NLogSpaceE[sub][sup][arg] = NLogSpace-Easy_{SUB}^{SUP}(ARG)
                  \verb|\NLogSpaceH[sub][sup][arg]| = NLogSpace-Hard_{SUB}^{SUP}(ARG)
                  \NLogSpaceC[sub][sup][arg] = NLogSpace-Complete_{SUB}^{SUP}(Arg)
                • \ULogSpace[sub][sup][arg] = ULogSpace[Sub](ARG)
                  \label{eq:ULogSpaceEsub} $$ \ULogSpaceE[sub] [sup] [arg] = ULogSpace-Easy_{SUB}^{SUP}(ARG) $$
                  \verb|\ULogSpaceH[sub][sup][arg]| = ULogSpace-Hard_{SUB}^{SUP}(ARG)
                  \ULogSpaceC[sub][sup][arg] = ULogSpace-Complete_{SUB}^{SUP}(ARG)
                • ALogSpace[sub][sup][arg] = ALogSpace_{SUB}^{SUP}(ARG)
                  ALogSpaceE[sub][sup][arg] = ALogSpace-Easy_{SUB}^{SUP}(ARG)
                  \ALogSpaceH[sub][sup][arg] = ALogSpace-Hard_{SUB}^{SUP}(Arg)
                  \verb|\ALogSpaceC[sub][sup][arg]| = ALogSpace-Complete_{Sub}^{SUP}(ARG)
            1195 \defcomclsgrp{LogSpace}
                • \P [sub] [sup] [arg] = \Pr [MESUP (ARG)
   \PTime
                  \P \PTimeE[sub] [sup] [arg] = PTIME-EASY<sup>SUP</sup><sub>SUB</sub>(ARG)
                  \P \PTimeH[sub] [sup] [arg] = PTIME-HARD_SUB (ARG)
                  \P \PTimeC[sub] [sup] [arg] = PTIME-COMPLETE_SUB(ARG)
                \verb|\DPTimeE[sub][sup][arg]| = \mathrm{DPTIME\text{-}EASY}^{SUP}_{SUB}(\mathrm{ARG})
                  \DPTimeH[sub][sup][arg] = DPTIME-HARD_{SUB}^{SUP}(ARG)
                  \DPTimeC[sub][sup][arg] = DPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \NPTime[sub][sup][arg] = NPTIME_{SUB}^{SUP}(ARG)
                  \NPTimeE[sub][sup][arg] = NPTIME-EASY_{SUB}^{SUP}(ARG)
                  \NPTimeH[sub][sup][arg] = NPTIME-HARD_{SUB}^{SUP}(ARG)
                  \NPTimeC[sub][sup][arg] = NPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                \verb|VPTimeE[sub][sup][arg]| = \mathrm{UPTIME\text{-}EASY}^{SUP}_{SUB}(\mathrm{ARG})
                  \UPTimeH[sub][sup][arg] = UPTIME-HARD_{SUB}^{SUP}(ARG)
                  \UPTimeC[sub][sup][arg] = UPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • APTime[sub][sup][arg] = APTIME_{SUB}^{SUP}(ARG)
                  \texttt{\APTimeE[sub][sup][arg]} = \operatorname{APTIME-EASY}^{SUP}_{SUB}(\operatorname{ARG})
                  \texttt{\APTimeH[sub][sup][arg]} = APTIME-HARD_{SUB}^{SUP}(ARG)
                  \APTimeC[sub][sup][arg] = APTIME-COMPLETE_{SUB}^{SUP}(ARG)
            1196 \defcomclsgrp{PTime}
```

```
\PSpace
                • \PSpace[sub][sup][arg] = PSPACE_{SUB}^{SUP}(ARG)
                   \label{eq:pspace} $$ \PSpace[sub][sup][arg] = PSpace-Easy_{SUB}^{SUP}(ARG) 
      . . .
                   \label{eq:pspaceH} $$ \PSpaceH[sub] [sup] [arg] = PSpace-HARD_{SUB}^{SUP}(ARG) 
                   \PSpaceC[sub][sup][arg] = PSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \DPSpace[sub][sup][arg] = DPSPACE_{SUB}^{SUP}(ARG)
                   \label{eq:decomposition} $$ \DPSpaceE[sub][sup][arg] = DPSpace-EASY_{SUB}^{SUP}(ARG) $$
                   \label{eq:def:DPSpaceH} $$ \DPSpaceH[sub][sup][arg] = DPSpace-HARD_{SUB}^{SUP}(ARG) $$
                   \label{eq:decomplete_SUB} $$ \DPSPACE-COMPLETE_{SUB}^{SUP}(ARG) $$
                • \NPSpace[sub][sup][arg] = NPSPACE_{SUB}^{SUP}(ARG)
                   \NPSpaceE[sub][sup][arg] = NPSPACE-EASY_{SUB}^{SUP}(ARG)
                   \NPSpaceH[sub][sup][arg] = NPSPACE-HARD_{SUB}^{SUP}(ARG)
                   \NPSpaceC[sub][sup][arg] = NPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \UPSpace[sub][sup][arg] = UPSPACE_{SUB}^{SUP}(ARG)
                   \UPSpaceE[sub][sup][arg] = UPSPACE-EASY_{SUB}^{SUP}(ARG)
                   \label{eq:upspace} $$ \UPSpaceH[sub] [sup] [arg] = UPSpace-HARD_{SUB}^{SUP}(ARG) $$
                   \UPSpaceC[sub][sup][arg] = UPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                \bullet \ \ \texttt{APSpace[sub][sup][arg]} = \mathrm{APSpace}^{SUP}_{SUB}(ARG)
                  \verb|\APSpaceE[sub][sup][arg]| = APSPACE-EASY_{SUB}^{SUP}(ARG)
                   \verb|\APSpaceH[sub][sup][arg]| = APSPACE-HARD_{SUB}^{SUP}(ARG)
                   \label{eq:apsilon} $$ APSpaceC[sub][sup][arg] = APSPACE-COMPLETE_{SUB}^{SUP}(ARG) $$
            1197 \defcomclsgrp{PSpace}
                • \QPTime[sub][sup][arg] = QPTIME_{SUB}^{SUP}(ARG)
 \QPTime
                   \label{eq:QPTimeEsub} $$ \PTIME-EASY_{SUB}^{SUP}(ARG) = QPTIME-EASY_{SUB}^{SUP}(ARG) $$
       . . .
                   \verb|\QPTimeH[sub][sup][arg]| = \mathrm{QPTIME}\text{-}\mathrm{HARD}^{\mathrm{SUP}}_{\mathrm{SUB}}(\mathrm{ARG})
                   \QPTimeC[sub][sup][arg] = QPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \DQPTime[sub][sup][arg] = DQPTIME_{SUB}^{SUP}(ARG)
                   \verb|\DQPTimeE[sub][sup][arg]| = \mathrm{DQPTIME-EASY}^{SUP}_{SUB}(\mathrm{ARG})
                   \verb|\DQPTimeH[sub][sup][arg]| = DQPTIME-HARD_{SUB}^{SUP}(ARG)
                   \label{eq:def-DQPTimeC} $$ \DQPTimeC[sub] [sup] [arg] = DQPTIME-COMPLETE_{SUB}^{SUP}(ARG) $$
                • \NQPTime[sub][sup][arg] = NQPTIME_{SUB}^{SUP}(ARG)
                   \NQPTimeE[sub][sup][arg] = NQPTIME-EASY_{SUB}^{SUP}(ARG)
                  \verb|\NQPTimeH[sub][sup][arg]| = NQPTIME-HARD_{SUB}^{SUP}(ARG)
                  \NQPTimeC[sub][sup][arg] = NQPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                \verb|VQPTimeE[sub][sup][arg]| = UQPTIME-EASY_{SUB}^{SUP}(ARG)
                   \verb|VQPTimeH[sub][sup][arg]| = \mathrm{UQPTIME-HARD}^{SUP}_{SUB}(\mathrm{ARG})
                   \label{eq:uqptimeC} $$ \UQPTimeC[sub][sup][arg] = UQPTIME-COMPLETE_{SUB}^{SUP}(ARG) $$
                • AQPTime[sub][sup][arg] = AQPTIME_{SUB}^{SUP}(ARG)
                   \verb|\AQPTimeE[sub][sup][arg]| = \mathrm{AQPTIME\text{-}EASY}^{SUP}_{SUB}(\mathrm{ARG})
                   \Lambda QPTimeH[sub][sup][arg] = AQPTIME-HARD_{SUB}^{SUP}(ARG)
                   \AQPTimeC[sub][sup][arg] = AQPTIME-COMPLETE_{SUB}^{SUP}(ARG)
            1198 \defcomclsgrp{QPTime}
                • \QPSpace[sub][sup][arg] = QPSPACE_{SUB}^{SUP}(ARG)
\QPSpace
                   \verb|\QPSpaceE[sub][sup][arg]| = \mathrm{QPSpace-Easy}^{SUP}_{SUB}(ARG)
                   \label{eq:QPSpaceH} $$ \QPSpaceH[sub] [sup] [arg] = QPSpace-HARD_{SUB}^{SUP}(ARG) $$
                   \label{eq:QPSpaceCsub} $$ \PPSPACE-COMPLETE_{SUB}^{SUP}(ARG) $$
                • \DQPSpace[sub][sup][arg] = DQPSPACE_{SUB}^{SUP}(ARG)
                   \verb|\DQPSpaceE[sub][sup][arg]| = \mathrm{DQPSPACE\text{-}EASY}^{SUP}_{SUB}(ARG)
                   \texttt{DQPSpaceH[sub][sup][arg]} = DQPSPACE-HARD_{SUB}^{SUP}(ARG)
                   \DQPSpaceC[sub][sup][arg] = DQPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \NQPSpace[sub][sup][arg] = NQPSPACE_{SUB}^{SUP}(ARG)
                   \verb|NQPSpaceE[sub][sup][arg]| = NQPSPACE-EASY_{SUB}^{SUP}(ARG)
                   \NQPSpaceH[sub][sup][arg] = NQPSPACE-HARD_{SUB}^{SUP}(ARG)
                   \NQPSpaceC[sub][sup][arg] = NQPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \UQPSpace[sub][sup][arg] = UQPSPACE_{SUB}^{SUP}(ARG)
                   \verb|VQPSpaceE[sub][sup][arg]| = UQPSPACE-EASY_{SUB}^{SUP}(ARG)
                   \UQPSpaceH[sub][sup][arg] = UQPSPACE-HARD_{SUB}^{SUP}(ARG)
                   \UQPSpaceC[sub][sup][arg] = UQPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
```

```
• AQPSpace[sub][sup][arg] = AQPSPACE_{SUB}^{SUP}(ARG)
                  \verb|\AQPSpaceE[sub][sup][arg]| = \mathrm{AQPSPACE\text{-}EASY}^{SUP}_{SUB}(\mathrm{ARG})
                  \verb|\AQPSpaceH[sub][sup][arg]| = AQPSpace-Hard_{SUB}^{SUP}(ARG)
                  \label{eq:approx} $$ AQPSpaceC[sub][sup][arg] = AQPSpace-COMPLETE_{SUB}^{SUP}(ARG) $$
            1199 \defcomclsgrp{QPSpace}
\ExpTime
                \bullet \ \texttt{\baseline{targ}[sub][sup][arg]} = \mathrm{ExpTime}^{SUP}_{SUB}(ARG)
                  \verb|\ExpTimeE[sub][sup][arg]| = EXPTIME-EASY_{SUB}^{SUP}(ARG)
                  \texttt{\colored}[sub][sup][arg] = EXPTIME-HARD_{SUB}^{SUP}(ARG)
                  \texttt{ExpTimeC[sub][sup][arg]} = \texttt{ExpTime-complete}^{\texttt{SUP}}_{\texttt{SUB}}(\texttt{ARG})
                • \DExpTime[sub][sup][arg] = DEXPTIME_{SUB}^{SUP}(ARG)
                  \texttt{DExpTimeE[sub][sup][arg]} = DEXPTIME-EASY_{SUB}^{SUP}(ARG)
                  \DExpTimeH[sub][sup][arg] = DEXpTIME-HARD_{SUB}^{SUP}(ARG)
                  \DExpTimeC[sub][sup][arg] = DEXPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                • \NExpTime[sub][sup][arg] = NEXPTIME_{SUB}^{SUP}(ARG)
                  \NExpTimeE[sub][sup][arg] = NEXPTIME-EASY_{SUB}^{SUP}(ARG)
                  \verb|\NExpTimeH[sub][sup][arg]| = NEXPTIME-HARD_{SUB}^{SUP}(ARG)
                  \NExpTimeC[sub][sup][arg] = NEXPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                \UExpTimeE[sub][sup][arg] = UEXPTIME-EASY_{SUB}^{SUP}(ARG)
                  \UExpTimeH[sub][sup][arg] = UEXPTIME-HARD_{SUB}^{SUP}(ARG)
                  \UExpTimeC[sub][sup][arg] = UEXPTIME-COMPLETE_{SUB}^{SUP}(ARG)
                \bullet \ \texttt{\ \ } \texttt{LargTime[sub][sup][arg]} = AEXPTIME^{SUP}_{SUB}(ARG)
                  \verb|\AExpTimeE[sub][sup][arg]| = AEXPTIME-EASY_{SUB}^{SUP}(ARG)
                  \Delta ExpTimeH[sub][sup][arg] = AEXPTIME-HARD_{SUB}^{SUP}(ARG)
                  \Delta ExpTimeC[sub][sup][arg] = AEXPTIME-COMPLETE_{SUB}^{SUP}(ARG)
            1200 \defcomclsgrp{ExpTime}
                \bullet \ \texttt{\colored}[sup][arg] = {\rm EXPSPACE}^{SUP}_{SUB}(ARG)
\ExpSpace
                  \ExpSpaceE[sub][sup][arg] = ExpSpace-Easy_{SUB}^{SUP}(ARG)
       . . .
                  \ExpSpaceH[sub][sup][arg] = ExpSpace-Hard_{SUB}^{SUP}(ARG)
                  \ExpSpaceC[sub][sup][arg] = ExpSpace-Complete_{SUB}^{SUP}(ARG)
                \bullet \ \ \texttt{\ \ } \texttt{[sup][arg]} = DExpSpace[\texttt{Sup}(Arg)
                  \verb|\DExpSpaceE[sub][sup][arg]| = DEXPSPACE-EASY_{SUB}^{SUP}(ARG)
                  \verb|\DExpSpaceH[sub][sup][arg]| = DEXPSPACE-HARD_{SUB}^{SUP}(ARG)
                  \label{eq:decomplete_sup} $$ \DEXPSPACE-COMPLETE_{SUB}^{SUP}(ARG) $$
                \bullet \ \ \texttt{NExpSpace[sub][sup][arg]} = \ \ \texttt{NExpSpace}^{\texttt{SUP}}_{\texttt{SUB}}(\texttt{Arg})
                  \NExpSpaceE[sub][sup][arg] = NEXPSPACE-EASY_{SUB}^{SUP}(ARG)
                  \NExpSpaceH[sub][sup][arg] = NEXpSpace-Hard_{SUB}^{SUP}(ARG)
                  \NExpSpaceC[sub][sup][arg] = NEXPSPACE-COMPLETE_{SUB}^{SUP}(ARG)
                • \UExpSpace[sub][sup][arg] = UExpSpace_{SUB}^{SUP}(ARG)
                  \UExpSpaceE[sub][sup][arg] = UExpSpace-Easy_{SUB}^{SUP}(ARG)
                  \UExpSpaceH[sub][sup][arg] = UExpSpace-Hard_{SUB}^{SUP}(ARG)
                  \label{eq:uexpspaceC} $$ \UExpSpaceC[sub][sup] [arg] = UExpSpace-Complete_{SUB}^{SUP}(ARG) $$
                • \Delta ExpSpace[sub][sup][arg] = AExpSpace_{SUB}^{SUP}(ARG)
                  \Delta ExpSpaceE[sub][sup][arg] = AEXPSPACE-EASY_{SUB}^{SUP}(ARG)
                  \Delta ExpSpaceH[sub][sup][arg] = AExpSpace-Hard_{SUB}^{SUP}(ARG)
                  \AExpSpaceC[sub][sup][arg] = AExpSpace-Complete_{Sub}^{SUP}(Arg)
            1201 \defcomclsgrp{ExpSpace}
            \PH
                • \PH[sub][sup][par] = PH<sup>SUP</sup><sub>SUB</sub>[PAR]
            1203 \defcomhrc{PH}
                \WH
            1204 \defcomhrc{WH}[W]
       \AH
                \bullet \AH[sub][sup][par] = A_{SUB}^{SUP}[PAR]
```

1205 \defcomhrc{AH}[A]

```
ullet \DLH[sub][sup][par] = \Delta_{	ext{SUB}}^{	ext{SUP}}[	ext{PAR}]
  \DLH
   \DBH
        ullet \DBH[sub][sup][par] = oldsymbol{\Delta}_{	ext{SUB}}^{	ext{SUP}}[	ext{PAR}]
      1206 \defcomhrc{DLH}[{\mth{\Delta}}]
      1207 \defcomhrc{DBH}[{\mth[mathbf]{\Delta}}]
        ullet \ELH[sub] [sup] [par] = \Sigma_{
m SUB}^{
m SUP}[{
m PAR}]
  \ELH
  \EBH
        ullet \EBH[sub][sup][par] = oldsymbol{\Sigma}^{	ext{SUP}}_{	ext{SUB}}[	ext{PAR}]
      1208 \defcomhrc{ELH}[{\mth{\Sigma}}]
      1209 \defcomhrc{EBH}[{\mth[mathbf]{\Sigma}}]
        ullet \ULH[sub][sup][par] = \Pi^{	ext{SUP}}_{	ext{SUB}}[	ext{PAR}]
  \ULH
  \UBH
        ullet \UBH[sub][sup][par] = oldsymbol{\Pi}^{	ext{SUP}}_{	ext{SUB}}[	ext{PAR}]
      1210 \defcomhrc{ULH}[{\mth{\Pi}}]
      1211 \defcomhrc{UBH}[{\mth[mathbf]{\Pi}}]
      1212 \fi
      1217 \ifgrp@
      \GrpName ...
   · · · 1219 \newcommand{\grpname}{G}
      1220 \usrmthlatupp{Grp}{Name}{name}[\grpname]
\VerSet ...
   ··· 1221 \newcommand{\versym}{v}
      1222 \newcommand{\verset}{V}
      1223 \cmdmthsetext{Ver}[\verset][\versym]
      1224 \cmdmthsymelm{iver}[\versym_{I}]
      1225 \cmdmthsymelm{fver}[\versym_{F}]
\EdgRel ...
      1226 \newcommand{\edgrel}{E}
      1227 \cmdmthrel{Edg}[\edgrel]
      \PthSet ...
\pthFun _{1229} \newcommand{\pthsym}{\pi}
      1230 \mbox{ } \mbox{pthset}{Pth}
      1231 \cmdmthsetext{Pth} [\pthset] [\pthsym]
      1232 \usrmth{path}{}{argfun}
  \pre ...
   \suc _{1233} \usrmth{pre}{}{oargfun}
      1234 \usrmth{suc}{}{oargfun}
      1235 \fi
      1238 %%** Macros for Games *************************
      1240 \ifgam@
```

```
\SATG ...
                                     · · · 1242 %% Satisfiability Games
                                                          1243 \cmdtxtoparname{SATG}[Sat]
                                                         1245 %% Validity Games
                                                         1246 \cmdtxtoparname{VALG}[Val]
                                                          1248 % Evaluation Games
                                                          1249 \cmdtxtoparname{EVLG}[Evl]
                                                          1251 %% Synthesis Games
                                                          1252 \cmdtxtoparname{SYNG}[Syn]
                                                          1254 %% Model-Checking Games
                                                          1255 \verb|\cmdtxtoparname{MCG}| [MC]|
                                                          1257 %% Ehrenfeucht-Fraisse Games
                                                          1258 \cmdtxtoparname{EFG}[EF]
                                                          \PlrSym ...
              \position 1260 \pos
                                                          1261 \cmdmthsym{Plr}[\plrsym]
                                                          1262 \mbox{ newcommand{\oppsym}{A}}
                                                          1263 \cmdmthsym{Opp}[\oppsym]
\ArenaName ...
                                     \cdots 1264 \newcommand{\arenaname}{A}
                                                         1265 \usrmthlatupp{Arena}{Name}[\arenaname]
               \PosSet ...
                                    \cdots 1266 \newcommand{\possym}{v}
                                                         1267 \newcommand{\posset}{Ps}
                                                         1268 \mbox{ \cmdmthsetext{Pos}[\posset] [\possym]}
                                                         1269 \cmdmthsymelm{ipos}[\possym_{I}]
                                                         1270 \cmdmthsymelm{fpos}[\possym_{F}]
                                                         1271 \verb|\cmdmthset{PPos}[\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\possest_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\posset_{\po
                                                         1272 \mbox{ \cmdmthsymelm{ppos}[\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\poss
                                                         1273 \cmdmthset{OPos}[\posset_{\OppSym}]
                                                          1274 \mbox{ } [\possym_{\normalfont{1274}}]
              \PlrFun ...
                                                          1275 \newcommand{\plrfun}{pl}
                                                          1276 \cmdmthfun{plr}[\plrfun]
               \MovRel ...
                                                          1277 \newcommand{\movrel}{Mv}
                                                          1278 \cmdmthrel{Mov}[\mbox{movrel}]
     \GameName ...
                                     · · · 1279 \newcommand{\gamename}{\Game}
                                                          1280 \usrmthlatupp{Game}{Name}{name}[\gamename]
               \WinSet ...
                                                          1281 \neq \{ \text{Winset} \}
                                                          1282 \cmdmthset{Win}[\winset]
                \ObsSet ...
                \obsFun _{1283} \newcommand{\obsset}{0b}
                                                          1284 \cmdmthset{Obs}[\obsset]
                                                          1285 \cmdmthfun{obs}
```

```
\HstSet ...
     · · · 1287 \newcommand{\hstsym}{\varpi}
        1288 \newcommand{\hstset}{Hst}
        1289 \cmdmthsetext{Hst}[\hstset][\hstsym]
        1290 \cmdmthset{PHst}[\hstset_{\PlrSym}]
        1291 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
        1292 \cmdmthset{OHst}[\hstset_{\OppSym}]
        1293 \cmdmthsymelm{ohst}[\hstsym_{\cmdm}]
        1294 \ \mbox{usrmth{play}{}} \ \
\PlaySet ...
\verb|\playFun $_{1295} \le \mbox{\playsym}{\pi} 
        1296 \mbox{ }\mbox{playset}{Play}
        1297 \cmdmthsetext{Play}[\playset][\playsym]
        1298 \usrmth{hst}{}{argfun}
\StrSet ...
     \cdots 1299 \verb|\newcommand{\strsym}{\sigma}|
        1300 \newcommand{\strset}{Str}
        1301 \cmdmthsetext{Str}[\strset][\strsym]
        1302 \cmdmthset{PStr}[\strset_{\PlrSym}]
        1303 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
        1304 \cmdmthset{OStr}[\strset_{\OppSym}]
        1305 \cmdmthsymelm{ostr}[\strsym_{\OppSym}]
 \PrfSet ...
 \prfFun _{1306} \newcommand{\prfsym}{\xi}
        1307 \newcommand{\prfset}{Prf}
        1308 \cmdmthsetext{Prf}[\prfset][\prfsym]
   \ent ...
   \esc 1309 \usrmth{ent}{}{oargfun}
        1310 \usrmth{esc}{}{oargfun}
   \int ...
   \out 1311 \usrmth{int}{}{oargfun}
        1312 \usrmth{out}{}{oargfun}
   \atr ...
   \rch 1313 \usrmth{atr}{}{oargfun}
        1314 \usrmth{rch}{}{oargfun}
  \lift ...
        1315 \usrmth{lift}{}{oargfun}
   \sol ...
        1316 \usrmth{sol}{}{oargfun}
        \BG ...
     · · · 1318 %% Buchi Games
        1319 \cmdtxtoparname{BG}
        1320
        1321 %% Co-Buchi Games
        1322 \cmdtxtoparname{CG}
        1323
        1324 %% Parity Games
        1325 \cmdtxtoparname{PG}
        1327 %% Rabin Games
```

```
1328 \cmdtxtoparname{RG}
              1329
              1330 %% Streett Games
              1331 \verb|\cmdtxtoparname{SG}|
             1332
             1333 %% Muller Games
              1334 \cmdtxtoparname{MG}
              \EvnSym ...
\verb|\dSym|_{1336} \verb|\newcommand{\evnsym}{0}|
              1337 \cmdmthsym{Evn} [\evnsym]
              1338 \newcommand{\oddsym}{1}
              1339 \cmdmthsym{Odd} [\oddsym]
\PrtSet ...
\label{lem:local_prtsym} $$ \prod_{1340 \neq 0} \sum_{p} {prtFun_{1340} \neq 0} $$
              1341 \newcommand{\prtset}{Pr}
              1342 \cmdmthsetext{Prt}[\prtset][\prtsym]
             1343 \cmdmthfun{prt}[pr]
              \EG ...
       · · · 1346 %% Energy Games
              1347 \cmdtxtoparname{EG}
             1349 %% Mean-Payoff Games
             1350 \cmdtxtoparname{MPG}
             1351
              1352 %% Discounted-Payoff Games
              1353 \cmdtxtoparname{DPG}
              \MaxSym ...
\verb|\MinSym|_{1355} \verb|\newcommand{\maxsym}{\cline{Conditions}} 
              1356 \cmdmthsym{Max}[\maxsym]
              1357 \newcommand{\minsym}{\boxminus}
              1358 \cmdmthsym{Min}[\minsym]
\WghSet ...
\label{lem:linear_state} $$ \model{\model} 1359 \model{\model} $$ \model\model} $$ \model\model\model\model} $$ \model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\model\mode\
              1360 \newcommand{\wghset}{Wg}
              1361 \cmdmthsetext{Wgh} [\wghset] [\wghsym]
              1362 \cmdmthfun{wgh}[wg]
              1364 \fi
              1369 \iflog@
```

```
\BF ...
   \QBF _{1371} % Boolean Formulae
    · · · 1372 \cmdtxtoparname{BF}
        1374\,\% Quantified Boolean Formulae
        1375 \DeclareRobustCommand{\QBF}
        1376 \{\{\text{txtname}\{Q\}\}\}\}
        1377 \DeclareRobustCommand{\EBF}
               {\ensuremath{\exists}\BF}
        1379 \DeclareRobustCommand{\UBF}
              {\ensuremath{\forall}\BF}
        \LogSig ...
    · · · 1382 \newcommand{\logsig}{L}
         1383 \usrmthlatupp{Log}{Sig}{sig}[\logsig]
    \Tt ...
    \label{final} $$ \P_{1384 \neq \infty}(\ttsym}{\top}
         1385 \usrmth{Tt}{}{sym}[\ttsym]
         1386 \newcommand{\ffsym}{\bot}
        1387 \usrmth{Ff}{}{sym}[\ffsym]
  \LNeg ...
  \LNot _{1388} \rightarrow {\lower.em} {\lower.em} {\lower.em} 
         1389 \usrmth{LNeg}{}{luop}[\lnegsym]
         1390 \newcommand{\lnotsym}{\sim}
        1391 \usrmth{LNot}{}{luop}[\lnotsym]
  \LCon ...
  \LDis _{1392} \rightarrow \{1consym}{\lambda}
         1393 \usrmth{LCon}{}{lbop}[\lconsym]
         1394 \newcommand{\ldissym}{\lor}
        1395 \verb|\usrmth{LDis}{{lbop}[\ldissym]}
  \LImp ...
  \verb|\LCoi|_{1396} \verb|\newcommand{\limpsym}_{\norm{limpsym}} \
         1397 \usrmth{LImp}{}{lbop}[\limpsym]
         1398 \newcommand{\lcoisym}{\leftrightarrow}
        1399 \usrmth{LCoi}{}{lbop}[\lcoisym]
  \LExs ...
  \LAll _{1400} \rightarrow {1400} = 1400
         1401 \usrmth{LExs}{}{luop}[\lexssym]
         1402 \mbox{ } {\mbox{command}{\mbox{\lallsym}}{\mbox{\forall}}
        1403 \usrmth{LAll}{}{luop}[\lallsym]
 \APSet ...
    \cdots 1404 \newcommand{\apsym}{p}
        1405 \mbox{ } \mbox{newcommand{\apset}{AP}}
         1406 \cmdmthsetext{AP}[\apset][\apsym]
        1407 \usrmth{ap}{}{argfun}
   \sub ...
        1408 \ \mbox{usrmth} \sub}{\argfun}
   \Cnt ...
   \label{lem:continuous} $$ \sum_{1410 \in \mathbb{Q}} 1410 \left( \operatorname{Qnt}_{sym}[Q] \right) $$
        1411 \usrmth{Sym}{}{sym}[\odot]
```

```
\QAE ...
       \label{eq:QEA} $$ \QEA _{1412} \left( \CAE \right) {\sym} [\forall\exists] $$
                  1413 \verb|\armth{QEA}{{}} sym{[\exists\forall]}
\QntSet ...
         · · · 1414 \newcommand{\qntsym}{\wp}
                  1415 \newcommand{\qntset}{Qn}
                  1416 \cmdmthsetext{Qnt}[\qntset][\qntsym]
    \free ...
  \bound _{1417} \usrmth{free}{}{argfun}
                  1418 \usrmth{bound}{}{argfun}
       \dep ...
       1420 \mbox{ }\mbox{alt}{{\mbox{argfun}}}
       \cnf ...
       \dnf _{1421} \cmdtxtabr{cnf}
         ... 1422 \cmdtxtabr{dnf}
                  1423 \cmdtxtabr{pnf}
                  1424 \cmdtxtabr{nnf}
                  \LogStr ...
         \cdots 1426 \newcommand{\logstr}{L}
                  1427 \usrmthlatupp{Log}{Str}{str}[\logstr]
\ValSet ...
         · · · 1428 \newcommand{\valsym}{\xi}
                  1429 \newcommand{\valset}{Val}
                  1430 \cmdmthsetext{Val}[\valset][\valsym]
\AsgSet ...
         \cdots 1431 \newcommand{\asgsym}{\chi}
                  1432 \newcommand{\asgset}{Asg}
                  1433 \cmdmthsetext{Asg}[\asgset][\asgsym]
                  \FOL ...
         · · · 1435 % First-Order Logic
                  1436 \cmdtxtoparname{FOL}[Fol]
                  1437 \cmdtxtoparname{F0}[F0]
                  1439 % Monadic First-Order Logic
                  1440 \DeclareRobustCommand{\MFOL}
                             {{\txtname{M}}\FOL}
                  1441
                  1442 \DeclareRobustCommand{\MF0}
                  1443 {{\txtname{M}}\FO}
                  \VarSig ...
         ··· 1445 \newcommand{\varsig}{V}
                  1446 \usrmthlatupp{Var}{Sig}{sig}[\varsig]
                  1447 \newcommand{\varsym}{x}
                  1448 \mbox{ } \mbox
                  1449 \cmdmthsetext{Var}[\varset][\varsym]
                  1450 \usrmth{var}{}{argfun}[vr]
                  1451 \usrmth{dim}{}{argfun}[dm]
```

```
\ConSig ...
               \cdots 1452 \newcommand{\consig}{C}
                            1453 \verb|\usrmth|| a tupp{Con}{Sig}{sig}[\consig]
                            1454 \mbox{ }\mbox{consym}{c}
                            1455 \verb|\newcommand{\conset}{Cn}
                            1456 \cmdmthsetext{Con}[\conset][\consym]
                             1457 \usrmth{con}{}{argfun}[cn]
\FunSig ...
               \cdots 1458 \newcommand{\funsig}{F}
                             1459 \usrmthlatupp{Fun}{Sig}{sig}[\funsig]
                             1460 \mbox{ \newcommand{\funsym}{f}}
                             1461 \mbox{ } \mbox
                             1462 \cmdmthsetext{Fun} [\funset] [\funsym]
                             1463 \usrmth{fun}{}{argfun}[fn]
                             1464 \usrmth{art}{}{argfun}[ar]
\TerSig ...
               \cdots 1465 \newcommand{\tersig}{T}
                             1466 \usrmthlatupp{Ter}{Sig}{sig}[\tersig]
                             1467 \mbox{ } \mbox{newcommand{\tersym}{t}}
                             1468 \newcommand{\terset}{Tr}
                             1469 \cmdmthsetext{Ter}[\terset][\tersym]
                             1470 \usrmth{ter}{}{argfun}
\RelSig ...
               · · · 1471 \newcommand{\relsig}{R}
                             1472 \mbox{ } \mbox
                             1473 \mbox{ } \mbox{newcommand{\relsym}{r}}
                             1474 \newcommand{\relset}{R1}
                             1475 \cmdmthsetext{Rel}[\relset][\relsym]
                             1476 \usrmth{rel}{}{argfun}[rl]
           \skm ...
                            1477 \usrmth{skm}{}{argfun}
                             \verb|\ConStr ...
               \cdots 1479 \newcommand{\constr}{C}
                             1480 \usrmthlatupp{Con}{Str}{str}[\constr]
\FunStr ...
               \cdots 1481 \newcommand{\funstr}{F}
                             1482 \usrmthlatupp{Fun}{Str}{str}[\funstr]
\TerStr ...
                ··· 1483 \newcommand{\terstr}{T}
                             1484 \usrmthlatupp{Ter}{Str}{str}[\terstr]
\RelStr ...
               \cdots 1485 \newcommand{\relstr}{R}
                             1486 \usrmthlatupp{Rel}{Str}{str}[\relstr]
                             \DF ...
               \IF 1488 % Dependence-Friendly Logic
               · · · 1489 \cmdtxtoparname{DF}
                             1491 % Independence-Friendly Logic
                             1492 \cmdtxtoparname{IF}
                             1493
```

```
1494 % Dependence/Independence-Friendly Logic
      1495 \cmdtxtoparname{DIF}
      1496
      1497 % Dependence Logic
      1498 \cmdtxtoparname{DL}
      1499
      1500 % Team Logic
      1501 \cmdtxtoparname{TL}
      1503 % Alternating Dependence-Friendly Logic
      1504 \cmdtxtoparname{ADF}
      1506 % Alternating Independence-Friendly Logic
      1507 \cmdtxtoparname{AIF}
      1508
      1509\;\text{\%} Alternating Dependence/Independence-Friendly Logic
      1510 \cmdtxtoparname{ADIF}
      \LEExs ...
\LAAll _{1512} \newcommand{\leexssym}{\Sigma}
      1513 \usrmth{LEExs}{}{luop}[\leexssym]
      1514 \newcommand{\laallsym}{\Pi}
      1515 \usrmth{LAA11}{}{luop}[\laallsym]
      \SOL ...
  · · · 1518 % Second-Order Logic
      1519 \cmdtxtoparname{SOL}[Sol]
      1520 \cmdtxtoparname{SO}
      1522 % Weak Second-Order Logic
      1523 \DeclareRobustCommand{\WSOL}
          {{\txtname{W}}\SOL}
      1525 \DeclareRobustCommand{\WSO}
      1526 {{\txtname{W}}\SO}
      1527
      1528 % coWeak Second-Order Logic
      1529 \DeclareRobustCommand{\coWSOL}
           {{\txtname{coW}}\SOL}
      1531 \DeclareRobustCommand{\coWSO}
      1532
           {{\txtname{coW}}\SO}
      1533
      1534 % Monadic Second-Order Logic
      1535 \DeclareRobustCommand{\MSOL}
          {{\txtname{M}}\SOL}
      1537 \DeclareRobustCommand{\MSO}
           {{\txtname{M}}\SO}
      1538
      1540 % Weak Monadic Second-Order Logic
      1541 \DeclareRobustCommand{\WMSOL}
           {{\txtname{W}}\MSOL}
      1543 \DeclareRobustCommand{\WMSO}
      1544
           {{\txtname{W}}\MSO}
      1546 % coWeak Monadic Second-Order Logic
      1547 \DeclareRobustCommand{\coWMSOL}
      1548 \{\{\text{txtname}\{\text{coW}\}\}\}
```

```
1549 \DeclareRobustCommand{\coWMSO}
            {{\txtname{coW}}\MSO}
        \FVarSet ...
    \cdots 1552 \newcommand{\fvarsym}{x}
        1553 \newcommand{\fvarset}{FVr}
        1554 \verb|\cmdmthsetext{FVar}| [\texttt{\fvarset}] [\texttt{\fvarsym}]
\SVarSet ...
    ··· 1555 \newcommand{\svarsym}{X}
        1556 \newcommand{\svarset}{SVr}
        1557 \cmdmthsetext{SVar}[\svarset][\svarsym]
        \TL ...
    \PL _{1560}\,\% Tree Logic
    \cdots \ 1561 \verb|\cmdtxtoparname{TL}|
        1562
        1563 % Weak Tree Logic
        1564 \DeclareRobustCommand{\WTL}
             {\{\text{txtname}\{W\}}\TL\}
        1565
        1566
        1567 % coWeak Tree Logic
        1568 \DeclareRobustCommand{\coWTL}
             {{\txtname{coW}}\TL}
        1570
        1571 % Monadic Tree Logic
        1572 \DeclareRobustCommand{\MTL}
            {\{\text{Ntxtname}\{M\}}\
        1573
        1574
        1575 % Weak Monadic Tree Logic
        1576 \DeclareRobustCommand{\WMTL}
             {{\txtname{W}}\MTL}
        1577
        1578
        1579 % coWeak Monadic Tree Logic
        1580 \DeclareRobustCommand{\coWMTL}
        1581
             {{\txtname{coW}}\MTL}
        1582
        1583 % Path Logic
        1584 \cmdtxtoparname{PL}
        1586 % Weak Path Logic
        1587 \DeclareRobustCommand{\WPL}
             {\{\text{txtname}\{W\}}\PL\}
        1590 % coWeak Path Logic
        1591 \DeclareRobustCommand{\coWPL}
             {{\txtname{coW}}\PL}
        1592
        1594 % Monadic Path Logic
        1595 \DeclareRobustCommand{\MPL}
        1596
             {{\txtname{M}}\PL}
        1598 % Weak Monadic Path Logic
        1599 \DeclareRobustCommand{\WMPL}
        1600
             {\{\text{txtname}\{W\}}\MPL\}
        1602 % coWeak Monadic Path Logic
```

```
1603 \DeclareRobustCommand{\coWMPL}
                                1604 \quad \{\{\text{txtname}\{\text{coW}\}\}\}
                                \ML ...
             \GML 1608 % Modal Logic
                ... 1609 \cmdtxtoparname{ML}
                                1611 % Graded Modal Logic
                                1612 \DeclareRobustCommand{\GML}
                               1613 \{\{\text{txtname}\{G\}\}\}\}
                                1615 % Quantified Modal Logic
                                1616 \DeclareRobustCommand{\QML}
                                                    \{\{\text{txtname}\{Q\}\}\}ML\}
                                1618 \DeclareRobustCommand{\EML}
                                1619 {\ensuremath{\exists}\ML}
                                1620 \DeclareRobustCommand{\UML}
                                                    {\ensuremath{\forall}\ML}
                                \Opr ...
                                1623 \usrmth{Opr}{}{sym}[Op]
        \DMod ...
        \BMod _{1624} \mbox{ \normal} {\normal} \mbox{\normal} \label{eq:bmod}
                                1625 \usrmth{BMod}{}{sym}[\Box]
            \Exs ...
             \All 1626 \DeclareRobustCommand{\Exs}
                                1627 {\c {\c }\c {\c
                                1628 \DeclareRobustCommand{\@sexs}[1]
                                1629 {\mth{\DMod}[#1]}
                                1630 \DeclareRobustCommand{\@exs}[1]
                                                    {\mth{\defval{\argmid{\langle}{#1}{\rangle}}}}
                                1632 \DeclareRobustCommand{\All}
                                1633 {\@ifstar{\@sall}{\@all}}
                                1634 \DeclareRobustCommand{\@sall}[1]
                                1635 {\mth{\BMod}[#1]}
                                1636 \DeclareRobustCommand{\@all}[1]
                                                  \label{$$ {\mathbb {T}}{\tilde {T}}_{\tilde {T}}}{\mathbb {T}}^{\mathbb 
                                \KrpStr ...
                ··· 1639 \newcommand{\krpstr}{K}
                                1640 \usrmthlatupp{Krp}{Str}{str}[\krpstr]
\WrlSet ...
                · · · 1641 \newcommand{\wrlsym}{w}
                                1642 \mbox{ } \mbox{wrlset}{W}
                                1643 \cmdmthsetext{Wrl}[\wrlset][\wrlsym]
                                1644 \cmdmthsymelm{iwrl}[\wrlsym_{I}]
\AccRel ...
\TrnRel _{1645} \rightarrow \{R\}
                                1646 \cmdmthrel{Acc}[\accsym]
                                1647 \cmdmthrel{Trn}[\accsym]
```

```
\labFun ...
       1648 \mbox{ \newcommand{\absym}{\absym}{\absym}}
       1649 \verb|\cmdmthfun{lab}|[\labsym]|
\PthSet ...
   · · · 1650 \providecommand{\pthsym}{\pi}
       1651 \providecommand{\phithset}{Pth}
       1652 \cmdmthsetext{Pth}[\pthset][\pthsym]
       1653 \usrmth{path}{}{argfun}
       \MC ...
  \GMC _{1655}\,\% Mu Calculus
   · · · 1656 \cmdtxtoparname{MC}[\ensuremath{\mu}-Calculus]
       1658 % Graded Mu Calculus
       1659 \verb|\DeclareRobustCommand{\GMC}|
       1660
           {\{\text{txtname}\{G\}\}\setminus MC\}}
       1661
       1662 % Quantified Mu Calculus
       1663 \DeclareRobustCommand{\QMC}
           {\{\text{txtname}\{Q\}\}\setminus MC\}}
       1665 \DeclareRobustCommand{\EMC}
           {\ensuremath{\exists}\MC}
       1667 \DeclareRobustCommand{\UMC}
           {\ensuremath{\forall}\MC}
       1668
       1669
       1670 % Alternation-Free Mu Calculus
       1671 \DeclareRobustCommand{\AFMC}
       1672
           {\{\text{Xtname}\{AF\}\}\MC}
       1674 % Alternation-Free Graded Mu Calculus
       1675 \DeclareRobustCommand{\AFGMC}
            {{\txtname{AF}}\GMC}
       1678 % Quantified Alternation-Free Mu Calculus
       1679 \DeclareRobustCommand{\QAFMC}
           {\{\text{txtname}\{Q\}\}\setminus AFMC\}}
       1681 \DeclareRobustCommand{\EAFMC}
       1682 {\ensuremath{\exists}\AFMC}
       1683 \DeclareRobustCommand{\UAFMC}
       1684
            {\ensuremath{\forall}\AFMC}
       \PTL ...
  \LTL _{1689} % Propositional Temporal Logic
   · · · 1690 \cmdtxtoparname{PTL}
       1692 % Quantified Propositional Temporal Logic
       1693 \DeclareRobustCommand{\QPTL}
       1694 \{\{\text{txtname}\{Q\}\}\}\}
       1695 \DeclareRobustCommand{\EPTL}
       1696 {\ensuremath{\exists}\PTL}
       1697 \DeclareRobustCommand{\UPTL}
       1698 {\ensuremath{\forall}\PTL}
```

```
1699
    1700 % Linear Temporal Logic
    1701 \cmdtxtoparname{LTL}
    1703 % Quantified Linear Temporal Logic
    1704 \DeclareRobustCommand{\QLTL}
    1705 \{\{\text{txtname}\{Q\}\}\}\
    1706 \DeclareRobustCommand{\ELTL}
    1707 {\ensuremath{\exists}\LTL}
    1708 \DeclareRobustCommand{\ULTL}
         {\ensuremath{\forall}\LTL}
    \X ...
 · · · 1711 \usrmth{X}{}{sym}[X\,]
    1712 \usrmth{F}{}{sym}[F\,]
    1713 \usrmth{G}{}{sym}[G\,]
    1714 \usrmth{U}{}{sym}[\,U\,]
    1715 \usrmth{R}{}{sym}[\,R\,]
 \Y ...
 · · · 1716 \usrmth{Y}{}{sym}[G\,]
    1717 \mbox{usrmth}{P}{}{sym}[P\,]\let\SavePilcrow\P
    1718 \usrmth{H}{}{sym}[H\,]\let\SaveDoubleAcute\H
    1719 \usrmth{S}{}{sym}[\,S\,]\let\SaveSectionSymbol\S
    1720 \usrmth{B}{}{sym}[\,B\,]
    \PDL ...
\CTL _{1723} % Propositional Dynamic Logic
 · · · 1724 \cmdtxtoparname{PDL}
    1726 % Computation Tree Logic
    1727 \cmdtxtoparname{CTL}
    1728
    1729 % Weak Computation Tree Logic
    1730 \DeclareRobustCommand{\WCTL}
         {\{\text{Xtname}\{W\}}\CTL\}
    1731
    1732
    1733 % Quantified Computation Tree Logic
    1734 \DeclareRobustCommand{\QCTL}
    1735 \{\{\text{txtname}\{Q\}\}\CTL\}
    1736 \DeclareRobustCommand{\ECTL}
    1737 {\ensuremath{\exists}\CTL}
    1738 \DeclareRobustCommand{\UCTL}
         {\ensuremath{\forall}\CTL}
    1741 % Improved Computation Tree Logic
    1742 \cmdtxtoparname{CTLP}[CTL$^{+}$]
    1744 % Weak Improved Computation Tree Logic
    1745 \DeclareRobustCommand{\WCTLP}
    1746
         {{\txtname{W}}\CTLP}
    1748 % Quantified Improved Computation Tree Logic
    1749 \DeclareRobustCommand{\QCTLP}
    1750 \{\{\text{txtname}\{Q\}\}\
    1751 \DeclareRobustCommand{\ECTLP}
    1752 {\ensuremath{\exists}\CTLP}
```

```
1753 \DeclareRobustCommand{\UCTLP}
    1754
         {\ensuremath{\forall}\CTLP}
    1755
    1756 % Full Computation Tree Logic
    1757 \cmdtxtoparname{CTLS}[CTL*]
    1759 % Weak Full Computation Tree Logic
    1760 \DeclareRobustCommand{\WCTLS}
         {{\txtname{W}}\CTLS}
    1763 % Quantified Full Computation Tree Logic
    1764 \DeclareRobustCommand{\QCTLS}
         {\{\text{txtname}\{Q\}\}\}\
    1766 \DeclareRobustCommand{\ECTLS}
        {\ensuremath{\exists}\CTLS}
    1768 \DeclareRobustCommand{\UCTLS}
         {\ensuremath{\forall}\CTLS}
    \A 1771 \usrmth{E}{}{sym}
    1772 \usrmth{A}{}{sym}
    \ATL ...
 · · · 1775 % Alternating Temporal Logic
    1776 \cmdtxtoparname{ATL}
    1778 % Weak Alternating Tree Logic
    1779 \DeclareRobustCommand{\WATL}
         {\{\text{XTL}\}}
    1780
    1782 % Quantified Alternating Temporal Logic
    1783 \DeclareRobustCommand{\QATL}
         {\{\text{txtname}\{Q\}\}\setminus ATL\}}
    1785 \DeclareRobustCommand{\EATL}
         {\ensuremath{\exists}\ATL}
    1787 \DeclareRobustCommand{\UATL}
    1788
         {\ensuremath{\forall}\ATL}
    1789
    1790 % Improved Alternating Temporal Logic
    1791 \cmdtxtoparname{ATLP}[ATL$^{+}$]
    1793 % Weak Improved Alternating Tree Logic
    1794 \DeclareRobustCommand{\WATLP}
         {\{\text{txtname}\{W\}}\ATLP\}
    1797 % Quantified Improved Alternating Temporal Logic
    1798 \DeclareRobustCommand{\QATLP}
         {\{\text{txtname}\{Q\}\}\setminus ATLP\}}
    1800 \DeclareRobustCommand{\EATLP}
         {\ensuremath{\exists}\ATLP}
    1802 \DeclareRobustCommand{\UATLP}
        {\ensuremath{\forall}\ATLP}
    1805 % Full Alternating Temporal Logic
    1806 \cmdtxtoparname{ATLS}[ATL*]
    1808 % Weak Full Alternating Tree Logic
    1809 \DeclareRobustCommand{\WATLS}
```

```
1810
             {{\txtname{W}}\ATLS}
       1812 % Quantified Full Alternating Temporal Logic
       1813 \DeclareRobustCommand{\QATLS}
            {\{\text{txtname}\{Q\}}\ATLS\}
       1815 \DeclareRobustCommand{\EATLS}
       1816 {\ensuremath{\exists}\ATLS}
       1817 \DeclareRobustCommand{\UATLS}
            {\ensuremath{\forall}\ATLS}
       \EExs ...
 \AAll 1820 \DeclareRobustCommand{\EExs}[1]
            {\mth{\argmid{\langle\!\langle}{\defval{#1}{\emptyset}}}{\rangle\!\rangle}}}
       1822 \DeclareRobustCommand{\AAll}[1]
            {\mth{\argmid{\left[\left[\}{\defval{#1}\{\emptyset}\}{\right]\right]\}}
       \CGS ...
       1825 \cmdtxtname{CGS}
\CGSStr ...
    ··· 1826 \newcommand{\cgsstr}{G}
       1827 \usrmthlatupp{CGS}{Str}{str}[\cgsstr]
\AgnSet ...
    \cdots 1828 \newcommand{\agnsym}{a}
       1829 \verb|\agnset|{Ag}|
       1830 \cmdmthsetext{Agn}[\agnset][\agnsym]
\ActSet ...
    · · · 1831 \newcommand{\actsym}{c}
       1832 \newcommand{\actset}{Ac}
       1833 \cmdmthsetext{Act}[\actset][\actsym]
\PosSet ...
    ··· 1834 \providecommand{\possym}{v}
       1835 \providecommand{\posset}{Ps}
       1836 \cmdmthsetext{Pos}[\posset][\possym]
       1837 \cmdmthsymelm{ipos}[\possym_{I}]
       1838 \cmdmthsymelm{fpos}[\possym_{F}]
       1839 \cmdmthset{PPos}[\posset_{\PlrSym}]
       1840 \cmdmthsymelm{ppos}[\possym_{\PlrSym}]
       1841 \cmdmthset{OPos}[\posset_{\OppSym}]
       1842 \cmdmthsymelm{opos}[\possym_{\OppSym}]
\SttSet ...
    ··· 1843 \newcommand{\sttsym}{s}
       1844 \newcommand{\sttset}{St}
       1845 \cmdmthsetext{Stt}[\sttset][\sttsym]
       1846 \cmdmthset{IStt}[\sttset_{I}]
       1847 \cmdmthsymelm{istt}[\sttsym_{I}]
       1848 \verb|\cmdmthset{FStt}| [\sttset_{F}]|
       1849 \cmdmthsymelm{fstt}[\sttsym_{F}]
\DecSet ...
    \cdots 1850 \newcommand{\decsym}{d}
       1851 \newcommand{\decset}{Dc}
       1852 \cmdmthsetext{Dec} [\decset] [\decsym]
```

```
\movFun ...
 \label{lower} $$\max_{1853} \end{\mathrm{\movsym}}_{\text{tau}}$
         1854 \cmdmthfun{mov}[\movsym]
         1855 \cmdmthrel{mov}[\movsym]
 \trnFun ...
 \verb|\trnRel| 1856 \verb|\newcommand{\trnsym}{\delta}|
         1857 \cmdmthfun{trn}[\trnsym]
         1858 \cmdmthrel{trn}[\trnsym]
 \PrfSet ...
         1859 \providecommand{\prfsym}{\xi}
         1860 \providecommand{\prfset}{Prf}
         1861 \cmdmthsetext{Prf}[\prfset][\prfsym]
 \HstSet ...
     \cdots \ 1862 \texttt{\providecommand{\hstsym}{\varpi}}
         1863 \providecommand{\hstset}{Hst}
         1864 \cmdmthsetext{Hst}[\hstset][\hstsym]
         1865 \cmdmthset{PHst}[\hstset_{\PlrSym}]
         1866 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
         1867 \cmdmthset{OHst}[\hstset_{\OppSym}]
         1868 \cmdmthsymelm{ohst}[\hstsym_{\OppSym}]
         1869 \usrmth{hst}{}{argfun}
\PlaySet ...
     · · · 1870 \providecommand{\playsym}{\pi}
         1871 \providecommand{\playset}{Play}
         1872 \cmdmthsetext{Play}[\playset][\playsym]
         1873 \usrmth{play}{}{argfun}
 \PlnSet ...
     · · · 1874 \providecommand{\plnsym}{\rho}
         1875 \providecommand{\plnset}{Pln}
         1876 \cmdmthsetext{Pln}[\plnset][\plnsym]
         1877 \cmdmthset{PPln}[\plnset_{\PlrSym}]
         1878 \cmdmthsymelm{pPln}[\plnsym_{\PlrSym}]
         1879 \cmdmthset{OPln}[\plnset_{\OppSym}]
         1880 \cmdmthsymelm{oPln}[\plnsym_{\OppSym}]
 \StrSet ...
     ··· 1881 \providecommand{\strsym}{\sigma}
         1882 \providecommand{\strset}{Str}
         1883 \cmdmthsetext{Str}[\strset][\strsym]
         1884 \cmdmthset{PStr}[\strset_{\PlrSym}]
         1885 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
         1886 \cmdmthset{OStr}[\strset_{\OppSym}]
         1887 \verb|\cmdmthsymelm{ostr}[\strsym_{\colored}]|
         \PL ...
     · · · 1889 % Plan Logic
         1890 \cmdtxtoparname{PL}
         1891
         1892 \DeclareRobustCommand{\EPL}
               {\ensuremath{\exists}\PL}
         1894 \DeclareRobustCommand{\UPL}
               {\ensuremath{\forall}\PL}
         1895
         1897 \DeclareRobustCommand{\FPL}
         1898
               {\{\text{txtname}\{F\}}\PL\}
         1899
```

```
1900 \DeclareRobustCommand{\EFPL}
     {\ensuremath{\exists}\FPL}
1902 \verb|\DeclareRobustCommand{\UFPL}|
1903
     {\ensuremath{\forall}\FPL}
1904
1905 % One-Goal Plan Logic
1906 \DeclareRobustCommandx{\OGPL}[3][1=, 2=, 3=]
      {\PL[#1][#2][1g\arglef{,}{#3}]}
1908
1909 \DeclareRobustCommand{\EOGPL}
     {\ensuremath{\exists}\OGPL}
1911 \DeclareRobustCommand{\UOGPL}
1912
     {\ensuremath{\forall}\OGPL}
1913
1914 \DeclareRobustCommand{\FOGPL}
      {{\txtname{F}}\OGPL}
1915
1916
1917 \DeclareRobustCommand{\EFOGPL}
      {\ensuremath{\exists}\FOGPL}
1919 \DeclareRobustCommand{\UFOGPL}
      {\ensuremath{\forall}\FOGPL}
1922 % Conjunctive-Goal Plan Logic
1923 \DeclareRobustCommandx{\CGPL}[3][1=, 2=, 3=]
      {\PL[#1][#2][cg\arglef{,}{#3}]}
1924
1925
1926 \DeclareRobustCommand{\ECGPL}
      {\ensuremath{\exists}\CGPL}
1927
1928 \DeclareRobustCommand{\UCGPL}
      {\ensuremath{\forall}\CGPL}
1930
1931 \DeclareRobustCommand{\FCGPL}
1932
     {{\txtname{F}}\CGPL}
1933
1934 \DeclareRobustCommand{\EFCGPL}
     {\ensuremath{\exists}\FCGPL}
1936 \DeclareRobustCommand{\UFCGPL}
     {\ensuremath{\forall}\FCGPL}
1937
1938
1939 % Disjunctive-Goal Plan Logic
1940 \DeclareRobustCommandx{\DGPL}[3][1=, 2=, 3=]
     {\PL[#1][#2][dg\arglef{,}{#3}]}
1943 \DeclareRobustCommand{\EDGPL}
     {\ensuremath{\exists}\DGPL}
1945 \DeclareRobustCommand{\UDGPL}
1946
      {\ensuremath{\forall}\DGPL}
1947
1948 \DeclareRobustCommand{\FDGPL}
     {{\txtname{F}}\DGPL}
1949
1950
1951 \DeclareRobustCommand{\EFDGPL}
     {\ensuremath{\exists}\FDGPL}
1953 \DeclareRobustCommand{\UFDGPL}
1954
      {\ensuremath{\forall}\FDGPL}
1955
1956 % Alternating-Goal Plan Logic
1957 \DeclareRobustCommandx{\AGPL}[3][1=, 2=, 3=]
     {\PL[#1][#2][ag\arglef{,}{#3}]}
1958
1959
1960 \DeclareRobustCommand{\EAGPL}
     {\ensuremath{\exists}\AGPL}
1962 \DeclareRobustCommand{\UAGPL}
```

```
1963
          {\ensuremath{\forall}\AGPL}
    1964
    1965 \DeclareRobustCommand{\FAGPL}
    1966
          {\{\text{txtname}\{F\}\}\setminus AGPL\}}
    1967
    1968 \DeclareRobustCommand{\EFAGPL}
         {\ensuremath{\exists}\FAGPL}
    1970 \DeclareRobustCommand{\UFAGPL}
          {\ensuremath{\forall}\FAGPL}
    1973 % Extended-Goal Plan Logic
    1974 \DeclareRobustCommandx{\EGPL}[3][1=, 2=, 3=]
          {\PL[#1][#2][eg\arglef{,}{#3}]}
    1976
    1977 \DeclareRobustCommand{\EEGPL}
          {\ensuremath{\exists}\EGPL}
    1978
    1979 \DeclareRobustCommand{\UEGPL}
          {\ensuremath{\forall}\EGPL}
    1980
    1981
    1982 \DeclareRobustCommand{\FEGPL}
          {{\txtname{F}}\EGPL}
    1985 \DeclareRobustCommand{\EFEGPL}
          {\ensuremath{\exists}\FEGPL}
    1987 \DeclareRobustCommand{\UFEGPL}
          {\ensuremath{\forall}\FEGPL}
    1988
    1989
    1990 % Boolean-Goal Plan Logic
    1991 \DeclareRobustCommandx{\BGPL}[3][1=, 2=, 3=]
          {\PL[#1][#2][bg\arglef{,}{#3}]}
    1993
    1994 \DeclareRobustCommand{\EBGPL}
          {\ensuremath{\exists}\BGPL}
    1996 \DeclareRobustCommand{\UBGPL}
          {\ensuremath{\forall}\BGPL}
    1997
    1998
    1999 \DeclareRobustCommand{\FBGPL}
          {{\txtname{F}}\BGPL}
    2000
    2001
    2002 \DeclareRobustCommand{\EFBGPL}
         {\ensuremath{\exists}\FBGPL}
    2004 \DeclareRobustCommand{\UFBGPL}
          {\ensuremath{\forall}\FBGPL}
    2007 % Undefined-Goal Plan Logic
    2008 \DeclareRobustCommandx{\XGPL}[3][1=, 2=, 3=]
    2009
          {\PL[#1][#2][xg\arglef{,}{#3}]}
    2010
    2011 \DeclareRobustCommand{\EXGPL}
    2012 {\ensuremath{\exists}\XGPL}
    2013 \DeclareRobustCommand{\UXGPL}
    2014
          {\ensuremath{\forall}\XGPL}
    2016 \DeclareRobustCommand{\FXGPL}
    2017
          {\{\text{txtname}\{F\}\}\setminus XGPL\}}
    2018
    2019 \DeclareRobustCommand{\EFXGPL}
          {\ensuremath{\exists}\FXGPL}
    2021 \DeclareRobustCommand{\UFXGPL}
         {\ensuremath{\forall}\FXGPL}
\SL ...
· · · 2023 % Strategy Logic
    2024 \cmdtxtoparname{SL}
```

```
2025
2026 \DeclareRobustCommand{\ESL}
             {\ensuremath{\exists}\SL}
2028 \DeclareRobustCommand{\USL}
2029
             {\ensuremath{\forall}\SL}
2030
2031 \DeclareRobustCommand{\FSL}
             {\{\text{txtname}\{F\}\}\SL\}}
2032
2033
2034 \DeclareRobustCommand{\EFSL}
             {\ensuremath{\exists}\FSL}
2036 \DeclareRobustCommand{\UFSL}
2037
             {\ensuremath{\forall}\FSL}
2038
2039 % One-Goal Strategy Logic
2040 \DeclareRobustCommandx{\OGSL}[3][1=, 2=, 3=]
             {\SL[#1][#2][1g\arglef{,}{#3}]}
2042
2043 \DeclareRobustCommand{\EOGSL}
              {\ensuremath{\exists}\OGSL}
2045 \DeclareRobustCommand{\UOGSL}
             {\ensuremath{\forall}\OGSL}
2047
2048 \DeclareRobustCommand{\FOGSL}
             {\{\text{txtname}\{F\}\}\setminus GSL\}}
2049
2050
2051 \DeclareRobustCommand{\EFOGSL}
            {\ensuremath{\exists}\FOGSL}
2053 \DeclareRobustCommand{\UFOGSL}
             {\ensuremath{\forall}\FOGSL}
2056 % Conjunctive-Goal Strategy Logic
2057 \DeclareRobustCommandx{\CGSL}[3][1=, 2=, 3=]
             {\SL[#1][#2][cg\arglef{,}{#3}]}
2059
2060 \DeclareRobustCommand{\ECGSL}
             {\ensuremath{\exists}\CGSL}
2062 \DeclareRobustCommand{\UCGSL}
             {\ensuremath{\forall}\CGSL}
2063
2064
2065 \DeclareRobustCommand{\FCGSL}
             {{\txtname{F}}\CGSL}
2068 \DeclareRobustCommand{\EFCGSL}
            {\ensuremath{\exists}\FCGSL}
2070 \label{localized} $2070 \label{localized} $$2070 \label{localize
2071
             {\ensuremath{\forall}\FCGSL}
2072
2073 % Disjunctive-Goal Strategy Logic
2074 \DeclareRobustCommandx{\DGSL}[3][1=, 2=, 3=]
2075
             {\SL[#1][#2][dg\arglef{,}{#3}]}
2077 \DeclareRobustCommand{\EDGSL}
             {\ensuremath{\exists}\DGSL}
2079 \DeclareRobustCommand{\UDGSL}
2080
             {\ensuremath{\forall}\DGSL}
2081
2082 \DeclareRobustCommand{\FDGSL}
             {{\txtname{F}}\DGSL}
2083
2084
2085 \DeclareRobustCommand{\EFDGSL}
            {\ensuremath{\exists}\FDGSL}
2087 \DeclareRobustCommand{\UFDGSL}
```

```
2088
      {\ensuremath{\forall}\FDGSL}
2089
2090 % Alternating-Goal Strategy Logic
2091 \DeclareRobustCommandx{\AGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][ag\arglef{,}{#3}]}
2094 \DeclareRobustCommand{\EAGSL}
     {\ensuremath{\exists}\AGSL}
2096 \DeclareRobustCommand{\UAGSL}
      {\ensuremath{\forall}\AGSL}
2098
2099 \DeclareRobustCommand{\FAGSL}
     {\{\text{txtname}\{F\}\}\setminus AGSL\}}
2100
2101
2102 \DeclareRobustCommand{\EFAGSL}
      {\ensuremath{\exists}\FAGSL}
2104 \DeclareRobustCommand{\UFAGSL}
      {\ensuremath{\forall}\FAGSL}
2105
2106
2107 % Extended-Goal Strategy Logic
2108 \DeclareRobustCommandx{\EGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][eg\arglef{,}{#3}]}
2110
2111 \DeclareRobustCommand{\EEGSL}
      {\ensuremath{\exists}\EGSL}
2113 \DeclareRobustCommand{\UEGSL}
      {\ensuremath{\forall}\EGSL}
2114
2115
2116 \DeclareRobustCommand{\FEGSL}
      {\{\text{txtname}\{F\}\}\setminus EGSL\}}
2117
2118
2119 \DeclareRobustCommand{\EFEGSL}
      {\ensuremath{\exists}\FEGSL}
2121 \DeclareRobustCommand{\UFEGSL}
      {\ensuremath{\forall}\FEGSL}
2122
2123
2124 % Boolean-Goal Strategy Logic
2125 \DeclareRobustCommandx{\BGSL}[3][1=, 2=, 3=]
2126
      {\SL[#1][#2][bg\arglef{,}{#3}]}
2127
2128 \DeclareRobustCommand{\EBGSL}
      {\ensuremath{\exists}\BGSL}
2130 \DeclareRobustCommand{\UBGSL}
      {\ensuremath{\forall}\BGSL}
2132
2133 \DeclareRobustCommand{\FBGSL}
2134
      {{\txtname{F}}\BGSL}
2135
2136 \DeclareRobustCommand{\EFBGSL}
     {\ensuremath{\exists}\FBGSL}
2138 \DeclareRobustCommand{\UFBGSL}
      {\ensuremath{\forall}\FBGSL}
2141 % Nested-Goal Strategy Logic
2142 \DeclareRobustCommandx{\NGSL}[3][1=, 2=, 3=]
     {\SL[#1][#2][ng\arglef{,}{#3}]}
2144
2145 \DeclareRobustCommand{\ENGSL}
      {\ensuremath{\exists}\NGSL}
2147 \DeclareRobustCommand{\UNGSL}
      {\ensuremath{\forall}\NGSL}
2148
2150 \DeclareRobustCommand{\FNGSL}
```

```
{{\txtname{F}}\NGSL}
                   2151
                   2152
                   2153 \DeclareRobustCommand{\EFNGSL}
                                {\ensuremath{\exists}\FNGSL}
                   2154
                   2155 \DeclareRobustCommand{\UFNGSL}
                                 {\ensuremath{\forall}\FNGSL}
                   2157
                   2158 % Undefined-Goal Strategy Logic
                   2159 \DeclareRobustCommandx{\XGSL}[3][1=, 2=, 3=]
                                  {\SL[#1][#2][xg\arglef{,}{#3}]}
                   2161
                   2162 \DeclareRobustCommand{\EXGSL}
                                {\ensuremath{\exists}\XGSL}
                   2164 \DeclareRobustCommand{\UXGSL}
                                {\ensuremath{\forall}\XGSL}
                   2165
                   2166
                   2167 \DeclareRobustCommand{\FXGSL}
                                {{\txtname{F}}\XGSL}
                   2168
                   2169
                   2170 \DeclareRobustCommand{\EFXGSL}
                                {\ensuremath{\exists}\FXGSL}
                   2172 \DeclareRobustCommand{\UFXGSL}
                   2173 {\ensuremath{\forall}\FXGSL}
                   \BndSet ...
          · · · 2175 \newcommand{\bndsym}{\flat}
                   2176 \newcommand{\bndset}{Bn}
                   2177 \cmdmthsetext{Bnd} [\bndset] [\bndsym]
                   2178 \mbox{ \cmdmthsymelm{idbnd} [\bndsym_{\text{id}}]}
                   2179 \usrmth{bnd}{}{argfun}
       \psn ...
                   2180 \usrmth{psn}{}{argfun}
                   \nxt ...
                   2182 \usrmth{nxt}{}{argfun}
                   2183 \fi
                   2188 \ifaut@
                   \DFA ...
          \cdots 2190 \texttt{Cmdtxtoparname{DFA}\backslash cmdtxtoparname{NFA}\backslash cmdtxtoparname{AFA}}
                   {\tt 2194 \cmdtxtoparname\{DFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{AFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{MFW\}\cmdtxtoparname\{
                   2195 \cmdtxtoparname{DWW}\cmdtxtoparname{AWW}\cmdtxtoparname{AWW}
                   {\tt 2197 \ cmdtxtoparname\{DCW\}\ cmdtxtoparname\{ACW\}\ cmdtxtoparname\{ACW
                   2198 \cmdtxtoparname{DPW}\cmdtxtoparname{APW}
                   2199 \cmdtxtoparname{DRW}\cmdtxtoparname{URW}\cmdtxtoparname{ARW}
                   2201 \cmdtxtoparname{DMW}\cmdtxtoparname{MW}\cmdtxtoparname{AMW}
```

```
\GFG ...
               · · · 2202 \cmdtxtoparname{GFG}
                         2203
                         2204 \cmdtxtoparname{PD}
                         2205 \cmdtxtoparname{PN}
                         2206
                         2207 \cmdtxtoparname{LD}
                          2208 \cmdtxtoparname{LN}
                          \AutName
               \cdots 2210 \newcommand{\autname}{A}
                          2211 \usrmthlatupp{Aut}{Name}{name}[\autname]
                          2212 \newcommand{\autset}{Aut}
                          2213 \cmdmthset{Aut}[\autset]
\WAutSet ...
                          2214 \newcommand{\wautset}{WAut}
                         2215 \cmdmthset{WAut}[\wautset]
   \SymSet ...
              · · · 2216 \newcommand{\symsym}{\sigma}
                          2217 \mbox{ \newcommand{\symset}{\Sigma}}
                          2218 \cmdmthsetext{Sym}[\symset][\symsym]
   \SttSet ...
               ··· 2219 \providecommand{\sttsym}{q}
                          2220 \providecommand{\sttset}{Q}
                          2221 \cmdmthsetext{Stt}[\sttset][\sttsym]
                         2222 \cmdmthset{IStt}[\sttset_{I}]
                         2223 \cmdmthsymelm{istt}[\sttsym_{I}]
                          2224 \cmdmthset{FStt}[\sttset_{F}]
                         2225 \mbox{ }\mbox{cmdmthsymelm{fstt}[\sttsym_{F}]}
   \trnFun ...
   \verb|\trnRel| 2226 \verb|\providecommand{\trnsym}{\delta}|
                          2227 \cmdmthfun{trn}[\trnsym]
                         2228 \cmdmthrel{trn}[\trnsym]
                          \WrdSet ...
              ··· 2230 \newcommand{\wrdsym}{w}
                          2231 \newcommand{\wrdset}{Wr}
                         2232 \cmdmthsetext{Wrd} [\wrdset] [\wrdsym]
        \Lang ...
                          2233 \usrmth{Lang}{}{argfun}[L]
                          \DTA ...
               \cdots 2235 \texttt{\cmdtxtoparname{DTA}\cmdtxtoparname{NTA}\cmdtxtoparname{UTA}\cmdtxtoparname{ATA}}
                         2236
                          2237 \verb|\cmdtxtoparname{DFT}\cmdtxtoparname{AFT}| cmdtxtoparname{AFT}| 
                          2238 \cmdtxtoparname{DWT}\cmdtxtoparname{AWT}\cmdtxtoparname{UWT}\cmdtxtoparname{AWT}
                          2239 \cmdtxtoparname{DBT}\cmdtxtoparname{NBT}\cmdtxtoparname{UBT}\cmdtxtoparname{ABT}
                          2240 \cmdtxtoparname{DCT}\cmdtxtoparname{UCT}\cmdtxtoparname{UCT}\cmdtxtoparname{ACT}
                          2241 \cmdtxtoparname{DPT}\cmdtxtoparname{MPT}\cmdtxtoparname{MPT}\cmdtxtoparname{APT}
                          2242 \verb|\cmdtxtoparname{NRT}| cmdtxtoparname{URT}| cmdtxtoparname{ART}| cmdtxtoparname{ART}|
                         2243 \verb|\cmdtxtoparname{NST}\cmdtxtoparname{UST}\cmdtxtoparname{AST}|
                          2244 \verb|\cmdtxtoparname{NMT}\cmdtxtoparname{UMT}\cmdtxtoparname{AMT}|
```

```
\TAutSet ...
    2246 \mbox{ } \mbox{TAut}
    2247 \cmdmthset{TAut}[\tautset]
\DirSet ...
  \cdots 2248 \newcommand{\dirsym}{d}
    2249 \newcommand{\dirset}{\Lambda}
    2250 \mbox{ } \mbox{cmdmthsetext{Dir}[\dirset][\dirsym]}
    \TreeSet ...
  ··· 2252 \newcommand{\treesym}{T}
    2253 \mbox{ } \mbox{\em recommand{\treeset}{Tr}}
    2254 \cmdmthsetext{Tree} [\treeset] [\treesym]
 \wot ...
    2255 \usrmth{wot}{}{argfun}
    2261 \iffrm@
  2262 %%...
    2263 \fi
    2268 \iffig@
    2269 \RequirePackage{tikz}
    2270 \usetikzlibrary{arrows, shapes, patterns, graphs, matrix}
    2271 \tikzstyle{every node} =
    2272 [draw = none, fill = none, black, thin]
    2273 \tikzstyle{every edge} +=
    2274 [black, thick]
    2275 \text{ } \text{tikzstyle{noall}} =
    2276 [draw = none, fill = none]
    2277 \text{ } \text{tikzstyle} \{ \text{nodraw} \} =
    2278 [draw = none, fill = white]
    2279 \tikzstyle{nofill} =
    2280 [draw = black, fill = none]
    2281 \ifwrpfig@
    2282 % Wrapfig Package
    2283 \quad \verb|\RequirePackage{wrapfig}|
    2284\fi
    2290 \iftab@
```

```
2291 %%...
       2292 \fi
       2297 \ifalg@
       2298 \RequirePackage[ruled,vlined]{algorithm2e}
       2299 \DontPrintSemicolon
       2300 \SetInd{0.25em}{0.5em}
       2301 \verb|\setlength{\algomargin}{1.25em}|
\Signature ...
       2302 \SetKw{Signature}{signature}
  \Macro ...
    ··· 2303 \SetKwFor{Macro}{macro}{}}
       2304 \SetKwFor{Function}{function}{}}
       2305 \SetKwFor{Procedure}{procedure}{}{
    \Let ...
       2306 \Text{WFor{Let}{in}{}}
   \True ...
  \False _{2307} \SetKw{True}{true}
       2308 \SetKw{False}{false}
   \From ...
    · · · 2309 \SetKw{From}{from}
       2310 \SetKw{To}{to}
       2311 \SetKw{DownTo}{downto}
   \GoTo ...
    · · · 2312 \SetKw{GoTo}{goto}
       2313 \SetKw{Break}{break}
       2314 \SetKw{Continue}{continue}
  \Guess ...
    · · · 2315 \SetKw{Guess}{guess}
       2316 \SetKw{ExsGuess}{$\exists$-guess}
       2317 \SetKw{AllGuess}{$\forall$-guess}
    \nlr ...
       2319 \DeclareRobustCommand{\nlr}[1]
           {\addtocounter{AlgoLine}{1}%
       2320
           \nlset{\arabic{AlgoLine}-\addtocounter{AlgoLine}{#1}\arabic{AlgoLine}}}
       2321
       2322 \fi
       2324 \endinput
       2325 \langle /package \rangle
```

## 2 Change History

v0.0	v0.22
General: First public release 1	General: Few additions $\dots \dots \dots$
v0.1	v0.23
General: Algorithm tricks 1	General: New 'Graphs' section and small
v0.10	improvements
General: Small refinements 1	v0.24
v0.11	General: Correction of fragile macros 1
General: Few additions and corrections 1	v0.25
v0.12	General: Few additions and corrections 1
General: New starred variants	v0.26
v0.13	General: Few additions
General: Further starred variants 1	v0.27
v0.14	General: Small addition to 'Algorithm tricks' 1
General: Few additions and corrections 1	v0.3
v0.15	General: Few problems solved 1
General: Refactoring of dtx sources 1	v0.4
v0.16	General: Refactoring, corrections, and
General: Small refinements and few additions 1 v0.17	extensions
General: Few additions	v0.5
v0.18	General: Figure tricks
General: Few new starred variants	v0.6
v0.19	General: Small refinements 1
General: Additional starred variants 1	v0.7
v0.2	General: Refinements, corrections, and
General: Changes in 'Auxiliary tricks' 1	extensions
v0.20	v0.8
General: New binary operators 1	General: Few refinements and corrections 1
v0.21	v0.9
General: Refactoring of function macros 1	General: Small addition to 'Algorithm tricks' 1
<del>-</del>	_

## 3 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

```
826, 830, 831, 832, 837,
               Symbols
                                                     <u>1183</u>, <u>1187</u>, <u>1192</u>, <u>1193</u>,
                                                                                                  838, 847, 864, 865, 867,
     <u>1194</u>, <u>1195</u>, <u>1196</u>, <u>1197</u>,
                                                     <u>1198</u>, <u>1199</u>, <u>1200</u>, <u>1201</u>,
                                                                                                  868, 869, 870, 871, 873, 874
         992, 1000, 1002, 1004, 1821
                                                     \underline{1219}, \underline{1221}, \underline{1242}, \underline{1264},
                                                                                        \@abs ..... 1108, 1109
     ..... 858, 859
                                                     <u>1266, 1279, 1287, 1299,</u>
                                                                                        \@all ..... 1633, 1636
    <u>1318</u>, <u>1346</u>, <u>1371</u>, <u>1382</u>,
                                                                                        \@card ..... 1014, 1015
    994, 996, 1002, 1004, 1136,
                                                     <u>1404</u>, <u>1414</u>, <u>1421</u>, <u>1426</u>,
                                                                                        \@ceil ..... 1126, 1127
         1139, 1140, 1711, 1712,
                                                     1428, 1431, 1435, 1445,
                                                                                        \@denot ..... 917, 918
         1713, 1714, 1715, 1716,
                                                     1452, 1458, 1465, 1471,
                                                                                        \@exs ..... 1627, 1630
         1717, 1718, 1719, 1720
                                                     1479, 1481, 1483, 1485,
                                                                                        \@floor ..... 1120, 1121
144
                                                     1488, 1518, 1552, 1555,
                                                                                        \@for ..... 176, 180
         <u>535</u>, <u>547</u>, <u>560</u>, <u>572</u>, <u>590</u>,
                                                     <u>1560</u>, <u>1608</u>, <u>1639</u>, <u>1641</u>,
                                                                                        \cline{0} \@ifnextchar ..... 815
         <u>592</u>, <u>603</u>, <u>605</u>, <u>616</u>, <u>618</u>,
                                                     \underline{1650}, \underline{1655}, \underline{1689}, \underline{1711},
         <u>629</u>, <u>631</u>, <u>642</u>, <u>644</u>, <u>655</u>,
                                                                                        \@ifstar ......
                                                     1716, 1723, 1775, 1826,
                                                                                                  300, 306, 312, 318, 324,
         <u>657</u>, <u>674</u>, <u>676</u>, <u>687</u>, <u>689</u>,
                                                     <u>1828</u>, <u>1831</u>, <u>1834</u>, <u>1843</u>,
         <u>700</u>, <u>702</u>, <u>713</u>, <u>715</u>, <u>743</u>,
                                                                                                  330, 336, 342, 348, 354,
                                                     1850, 1862, 1870, 1874,
                                                                                                  363, 365, 367, 369, 371,
         <u>746, 755, 757, 768, 770,</u>
                                                     1881, 1889, 2023, 2175,
         <u>782</u>, <u>784</u>, <u>795</u>, <u>797</u>, <u>889</u>,
                                                                                                  377, 382, 387, 392, 397,
                                                     2190, 2202, 2210, 2216,
         891, 894, 898, 902, 907,
                                                                                                  405, 413, 419, 425, 431,
                                                     2219, 2230, 2235, 2248,
         911, 923, 938, 940, 964,
                                                                                                  437, 443, 449, 455, 461,
                                                     2252, 2262, 2291, 2303,
         989, 1025, 1047, 1056,
                                                                                                  467, 476, 478, 480, 482,
                                                     <u>2309</u>, <u>2312</u>, <u>2315</u>, <u>2318</u>
         1063, 1067, 1075, 1083,
                                                                                                  484, 490, 493, 496, 499,
         <u>1091</u>, <u>1096</u>, <u>1135</u>, <u>1137</u>,
                                            /@
                                                 502, 508, 883, 887, 917,
```

932, 941, 945, 949, 953,	\@snewtxtparsty 342, 345	\aMat <u>784</u>
957, 961, 965, 969, 973,	\@snewtxtsty 306, 309	\amsdef@false 17
977, 981, 985, 990, 992,	\@snorm 1114, 1117	\amsdef@true 16
998, 1000, 1006, 1008,	\@ssequence 941	\amsthm@false 21
1014, 1108, 1114, 1120,	\@ssequencel 945	\amsthm@true 20
1126, 1149, 1627, 1633	\@ssequencer 949	\AName <u>592</u>
\@len 1149, 1150	\@ssequencex 953	\AOmega $\underline{1052}$
\@newmth 413, 414	\@ssequencexl 957	\Aomega <u>1052</u>
\@newmtharg 425, 426	\@ssequencexr 961	\Aomicron
\Quad \Quad \Quad \Quad	\@sset 990, 992, 995	\Aposteriori <u>842</u>
\@newmthoarg 437, 438	\@ssetl 998, 1000, 1003	\aposteriori <u>820</u>
\Onewmthoargsty 443, 444	\@ssetr 1006, 1008, 1011	\Apriori <u>841</u>
\@newmthopar 461, 462	\@stuple 965	\apriori
\Quad \Quad \Quad \text{Onewmthoparsty} $467, 468$	\@stuplel 969	\APSet \( \frac{1404}{1405} \)
\Quad \Quad \Quad \Quad	\@stupler 973	\apset 1405, 1406
\Quad \Quad \Quad \Quad	\@stuplex	\apsym 1404, 1406
\@newmthsty 419, 420	\@stuplex1 981	\arabic
\@newtxt 300, 301	\@stuplexr 985	\aRel
\@newtxtarg 312, 313	\@svec 932, 935	\ArenaName <u>1264</u>
\@newtxtargsty 318, 319	\@tuple 965	\arenaname 1264, 1265
\@newtxtoarg 324, 325	\@tuple1 969	\arg
\@newtxtoargsty 330, 331	\@tupler 973	\arglef <u>157</u> , 164, 427,
\@newtxtopar 348, 349	\\0 tuplex 977	451, 1907, 1924, 1941,
\@newtxtoparsty $354, 355$	\0tuplex1 981	1958, 1975, 1992, 2009,
\@newtxtpar 336, 337	\@tuplexr 985 \@vec 932, 933	2041, 2058, 2075, 2092,
\Quad \Quad \Quad	\^	2109, 2126, 2143, 2160 \argmid 161, 314, 316,
\@newtxtsty 306, 307	\'	338, 340, 427, 429, 451,
\@norm 1114, 1115	(	453, 919, 921, 994, 996,
\@sabs 1108, 1111	$\mathbf{A}$	1002, 1004, 1010, 1012,
\@sall 1633, 1634	\A 1771	1016, 1018, 1110, 1112,
\@scard 1014, 1017	\AA11 1820	1116, 1118, 1122, 1124,
\@sceil 1126, 1129		
	\abs 1107	
\@sdenot 917, 920	\abs	1128, 1130, 1151, 1153,
\@sdenot 917, 920 \@sequence 941		1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823
\@sdenot 917, 920 \@sequence 941 \@sequencel 945	\AccRel <u>1645</u>	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823 \argrig
\@sdenot 917, 920 \@sequence 941 \@sequencel 945 \@sequencer 949	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823
\@sequence	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823 \argrig
\@sdenot       917, 920         \@sequence       941         \@sequence1       945         \@sequencer       949         \@sequencex       953         \@sequencexl       957	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823 \argrig
\@sdenot       917, 920         \@sequence       941         \@sequence1       945         \@sequencer       949         \@sequencex       953         \@sequencex1       957         \@sequencexr       961	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823 \argrig
\\( \text{@sdenot} \tag{917}, 920 \\ \text{@sequence} \tag{941} \\ \text{@sequence1} \tag{945} \\ \text{@sequencex} \tag{953} \\ \text{@sequencex1} \tag{957} \\ \text{@sequencexr} \tag{990}, 992, 993 \\ \text{@set} \tag{990}, 992, 993 \\ \text{@set} \tag{990}, 992, 993 \\ \text{\$981} \tag{990}, 992, 993 \\ \text{\$982} \tag{990} \tag{992} \tag{993} \\ \text{\$982} \tag{993} \\ \text{\$982} \tag{993} \\ \text{\$983} \tag{990} \tag{992} \tag{993} \\ \text{\$983} \tag{990} \tag{992} \tag{993} \\ \text{\$983} \tag{990} \tag{992} \tag{993} \\ \text{\$984} \tag{990} \tag{992} \tag{993} \\ \text{\$990} \tag{993} \\ \text{\$990} \tag{992} \tag{993} \\ \text{\$990} \tag{992} \tag{993} \\ \text{\$990} \tag{992} \tag{993} \\ \text{\$990} \tag{992} \tag{993} \\ \text{\$990} \tag{993} \\ \text{\$90} \tag{990} \tag{993} \\ \text{\$90} \tag{990} \tag{990} \\ \text{\$90}	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823 \argrig
\\( \text{\cong}\) \\( \co	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823   \argrig
\\( \text{Qsdenot} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequencer} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencexl} \tag{957} \\ \text{Qsequencexr} \tag{961} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{98, 1000, 1001} \\ \text{Qsetr} \tag{1006, 1008, 1009} \end{array}	\AccRel	1128, 1130, 1151, 1153, 1631, 1637, 1821, 1823   \argrig 159   \argsep 163, 168, 994, 996, 1099, 1101, 1103, 1105   \aSet 657   \AsgSet 1431   \asgsym 1431, 1433
\\( \text{Qsdenot} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequencer} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencexl} \tag{957} \\ \text{Qsequencexr} \tag{961} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{98, 1000, 1001} \\ \text{Qsetr} \tag{1006, 1008, 1009} \\ \text{Qsexs} \tag{1627, 1628} \end{array}	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsdenot} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequencer} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencexl} \tag{957} \\ \text{Qsequencexr} \tag{961} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{98, 1000, 1001} \\ \text{Qsetr} \tag{98, 1008, 1009} \\ \text{Qsexs} \tag{1627, 1628} \\ \text{Qsfloor} \tag{1120, 1123} \end{array}	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153, 1631, 1631, 1637, 1821, 1823     largrig
\\( \text{Qsequence} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequence} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencex} \tag{957} \\ \text{Qsequencex} \tag{961} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{990, 1000, 1001} \\ \text{Qset} \text{Qset} \tag{990, 1000, 1001} \\ \text{Qset} \\ \text{Qset} \tag{990, 1000, 1001} \\ \text{Qset} \\	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsequence} \ \text{Qsequence} \ \text{Qsequence} \ \ \text{Qsequencer} \ \text{Qsequencer} \ \text{Qsequencer} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencexr} \ \text{Qsequencexr} \ \text{Qsequencexr} \ \text{Qsequencexr} \ \text{Qsequencexr} \ \text{Qset} \ \t	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsequence} \ \text{Qsequence} \ \text{Qsequence} \ \ \text{Qsequencer} \ \text{Qsequencer} \ \text{Qsequencer} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencex} \ \text{Qsequencexr} \ Qsequencex	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsequence} \ \text{Qsequence} \ \text{Qsequence} \ \ \text{941} \\ \text{Qsequencer} \ \ \text{Qsequencer} \ \ \text{Qsequencer} \ \ \text{Qsequencex} \ \ \text{Qsequencex} \ \ \text{Qsequencex} \ \ \text{Qsequencex} \ \ \text{Qsequencexr} \ \ \text{Qsequencexr} \ \ \text{Qsequencexr} \ \ \text{Qsequencexr} \ \ \ \text{Qsequencexr} \ \ \ \text{Qsequencexr} \ \ \ \ \text{Qsequencexr} \ \ \ \ \ \ \ \text{Qsequencexr} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsequence}  \text{917}, 920 \\ \text{Qsequence1}  \text{945} \\ \text{Qsequencer}  \text{949} \\ \text{Qsequencex}  \text{953} \\ \text{Qsequencex}  \text{957} \\ \text{Qsequencex}  \text{990}, 992, 993 \\ \text{Qset1}  \text{990}, 992, 993 \\ \text{Qset1}  \text{998}, 1000, 1001 \\ \text{Qsetx}  \text{1006}, 1008, 1009 \\ \text{Qsexs}  \text{1627}, 1628 \\ \text{Qsfloor}  \text{1120}, 1123 \\ \text{Qslen}  \text{1149}, 1152 \\ \text{Qsnewmth}   \text{413}, 416 \\ \text{Qsnewmthargsty}   \text{431}, 434 \\ \text{Qsnewmthoarg}    \text{437}, 440 \\ \end{\text{Qsnewmthoarg}}	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsequence}  \text{917}, 920 \\ \text{Qsequence}  \text{945} \\ \text{Qsequencer}  \text{945} \\ \text{Qsequencex}  \text{949} \\ \text{Qsequencex}  \text{953} \\ \text{Qsequencex}  \text{957} \\ \text{Qsequencexr}  \text{990}, 992, 993 \\ \text{Qset1}  \text{998}, 1000, 1001 \\ \text{Qsetr}  \text{1006}, 1008, 1009 \\ \text{Qsexs}  \text{1627}, 1628 \\ \text{Qsfloor}  \text{1120}, 1123 \\ \text{Qsnewmth}   \text{413}, 416 \\ \text{Qsnewmthargsty}   \text{431}, 434 \\ \text{Qsnewmthoargsty}    \text{437}, 440 \\ \text{Qsnewmthoargsty}   \q	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsedenot} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequencer} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencex} \tag{957} \\ \text{Qsequencexr} \tag{961} \\ \text{Qsequencexr} \tag{961} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{990, 1000, 1001} \\ \text{Qset} \tag{998, 1000, 1001} \\ \text{Qset} \\ \text{Qsnewmth} \\ \text{Qsnewmth} \\ \text{413, 416} \\ \text{Qsnewmthoarg} \\ \text{437, 440} \\ \text{Qsnewmthoargsty} \\ \text{443, 446} \\ \text{Qsnewmthoarg} \\ \text{461, 464} \\ 4	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\text{\text{\cong}}} \text{\text{\cong}} \text{\text{\cong}} \text{\text{\cong}} \text{\cong} \text	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\text{\cong}} \text{\text{\cong}} \text{\cong}	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{Qsdenot} \tag{917, 920} \\ \text{Qsequence} \tag{941} \\ \text{Qsequencer} \tag{945} \\ \text{Qsequencer} \tag{949} \\ \text{Qsequencex} \tag{953} \\ \text{Qsequencex} \tag{957} \\ \text{Qsequencex} \tag{961} \\ \text{Qsequencex} \tag{990, 992, 993} \\ \text{Qset} \tag{990, 992, 993} \\ \text{Qset} \tag{990, 1000, 1001} \\ \text{Qset} \tag{998, 1000, 1001} \\ \text{Qset} \tag{998, 1000, 1001} \\ \text{Qset} \tag{988, 1000, 1001} \\ \text{Qset} \tag{981, 1002, 1123} \\ \text{Qsfloor} \tag{1120, 1123} \\ \text{Qslen} \tag{1149, 1152} \\ \text{Qsnewmth} \tag{413, 416} \\ \text{Qsnewmtharg} \tag{425, 428} \\ \text{Qsnewmthargsty} \tag{431, 434} \\ \text{Qsnewmthoarg} \tag{437, 440} \\ \text{Qsnewmthoargsty} \tag{443, 446} \\ \text{Qsnewmthopar} \tag{467, 470} \\ \text{Qsnewmthpar} \tag{449, 452} \\ \text{Qsnewmthparsty} \tag{455, 458} \\ \text{Qsnewmthparsty} \tag{455, 458} \end{455} \end{458} \\ \text{Qsnewmthparsty} \tag{455, 458} \\ \text{Qsnewmthpar} 4	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\mathrm{Q}} \m	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\text{\cong}\) \\( \text{\cong}\) \\( \te	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\text{\cong}\) \\( \text{\cong}\) \\( \te	\AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\tert{\text{\text{\text{\text{\text{\text{\text{\t	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\tert{\text{\text{\text{\text{\text{\text{\text{\t	AccRel	1128, 1130, 1151, 1153,         1631, 1637, 1821, 1823         \argrig
\\( \text{\tert{\text{\text{\text{\text{\text{\text{\text{\t	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153, 1631, 1631, 1637, 1821, 1823   \argrig
\\( \text{\tert{\text{\text{\text{\text{\text{\text{\text{\t	\Accrel \frac{1645}{\accsym} \ \ 1645, 1646, 1647 \ACls \frac{618}{\ActSet} \frac{618}{\ActSet} \frac{1831}{\actset} \frac{1832}{\actsym} \frac{1831}{\actsym} \frac{1832}{\actsym} \frac{2320}{\actsym} \frac{2320}{\actsym} \frac{2321}{\adhoc} \frac{1671}{\actsym} \frac{605}{\actsym} \frac{1675}{\actsym} \frac{1675}{\actsym} \frac{1671}{\actsym} \frac{1680}{\actsym} \frac{1682}{\actsym} \frac{1684}{\actsym} \frac{460}{\actsym} \frac{1682}{\actsym} \frac{1689}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1828}{\actsym} \frac{1864}{\actsym} \frac{1957}{\actsym} \frac{1961}{\actsym} \frac{1963}{\actsym} \frac{1965}{\actsym} \frac{1205}{\actsym} \frac{1205}{\actsym} \frac{1205}{\actsym} \frac{1206}{\actsym} \frac{1206}{\actsymm} \frac{1206}{\actsymm} \frac{1206}{\actsymm} \frac{1206}{\actsymmm} \frac{1206}{\actsymmmm} \frac{1206}{\actsymmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	1128, 1130, 1151, 1153, 1631, 1631, 1637, 1821, 1823 \argrig
\\( \text{\tert{\text{\text{\text{\text{\text{\text{\text{\t	\AccRel \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1128, 1130, 1151, 1153, 1631, 1631, 1637, 1821, 1823   \argrig

\BGPL 1991, 1995, 1997, 2000		
	\cmdmthoargelm $\underline{720}$ , $735$	1830, 1833, 1836, 1845,
\bgroup	\cmdmthoargfam 610	1852, 1861, 1864, 1872,
\BGSL 2125, 2129, 2131, 2134	\cmdmthoargfrm 775	1876, 1883, 2177, 2218,
\BMod <u>1624</u> , 1635, 1637	\cmdmthoargfun 694	2221, 2232, 2250, 2254
\BndSet		
	\cmdmthoargmat	
\bndset 2176, 2177	\cmdmthoargname $\dots \dots 597$	\cmdmthsnt
\bndsym 2175, 2177, 2178	\cmdmthoargrel $\underline{681}$	\cmdmthstr <u>645</u>
\boldsymbol 783, 796	\cmdmthoargset $\dots \dots \underline{662}$	\cmdmthsym
\bot 1386	\cmdmthoargsig 636	. <u>703</u> , 728, 1261, 1263,
\bound <u>1417</u>	\cmdmthoargsnt 762	1337, 1339, 1356, 1358
\Box 1625	\cmdmthoargstr 649	\cmdmthsymelm
\boxminus 1357	\cmdmthoargsym 707, 734	$\frac{727}{1224}$ , 1225,
\bst <u>1135</u>	\cmdmthoargsymelm 733	1269, 1270, 1272, 1274,
		1291, 1293, 1303, 1305,
$\mathbf{C}$	\cmdmthoargvec 802	
\card 1013	\cmdmthopar <u>500</u> , <u>504</u>	1644, 1837, 1838, 1840,
\caselower 669	\cmdmthoparcls $\underline{627}$	1842, 1847, 1849, 1866,
	\cmdmthoparelm $\underline{724}$ , $741$	1868, 1878, 1880, 1885,
\cdot 1020	\cmdmthoparfam <u>614</u>	1887, 2178, 2223, 2225
\ceil <u>1119</u>	\cmdmthoparfrm 779	\cmdmthvec <u>798</u>
\cequiv <u>911</u>	\cmdmthoparfun 698	\cmdtxt <u>375</u> , 401
\cf <u>821</u>	\cmdmthoparmat 793	\cmdtxtabr 549,
\CGPL 1923, 1927, 1929, 1932	<del>-</del>	817, 818, 819, 820, 821,
\CGS 1825	\cmdmthoparname 601	
\CGSL 2057, 2061, 2063, 2066	\cmdmthoparrel $\underline{685}$	822, 823, 824, 825, 826,
\CGSStr	\cmdmthoparset $\underline{666}$	827, 828, 829, 830, 831,
	\cmdmthoparsig $\underline{640}$	832, 833, 834, 835, 836,
\cgsstr 1826, 1827	\cmdmthoparsnt 766	837, 838, 840, 841, 842,
\chgbar@false 44	\cmdmthoparstr 653	843, 844, 845, 846, 847,
\chgbar@true 45	\cmdmthoparsym 711, 740	848, 849, 850, 851, 852,
\chi 1431		853, 857, 858, 859, 860,
\circ 1036	<u> </u>	862, 864, 865, 866, 867,
\cmdmth $488, 504, 744, 745, 751$	\cmdmthoparvec <u>806</u>	868, 869, 870, 871, 873,
\cmdmthall $503, 591, 604, 617,$	\cmdmthpar 497, 504	874, 1421, 1422, 1423, 1424
630, 643, 656, 675, 688,	\cmdmthparcls $\underline{625}$	
701, 714, 756, 769, 783, 796	\cmdmthparelm $\underline{722}$ , $738$	\cmdtxtall 400, 536, 548, 561, 573
\cmdmtharg 491, 504	\cmdmthparfam $\dots \dots \underline{612}$	\cmdtxtarg <u>380</u> , 401
\cmdmthargcls 621	\cmdmthparfrm	\cmdtxtargabr $551$
\cmdmthargelm 718, 732	\cmdmthparfun <u>696</u>	\cmdtxtargcom $\dots \dots 576$
	\cmdmthparmat 791	\cmdtxtargdef <u>539</u>
\cmdmthargfam	• —	\cmdtxtargname 564
\cmdmthargfrm <u>773</u>	\cmdmthparname 599	
\cmdmthargfun <u>692</u>	\cmdmthparrel <u>683</u>	\cmdtxtcom <u>574</u> , 1183, 1184, 1185
	\cmdmthparrel 683 \cmdmthparset 664	\cmdtxtcom <u>574</u> , 1183, 1184, 1185 \cmdtxtdef <u>537</u>
\cmdmthargfun 692	\cmdmthparrel	\cmdtxtcom \(\frac{574}{1183}\), \(\frac{537}{1184}\), \(\frac{562}{1825}\)
\cmdmthargfun 692 \cmdmthargmat 787	\cmdmthparrel 683 \cmdmthparset 664	\cmdtxtcom \( \frac{574}{1183}, \) \( 1184, \) \( 1185 \) \( \cmdtxtdef \) \( \cdot \) \( \frac{537}{25}, \) \( \cmdtxtname \) \( \frac{562}{25}, \) \( \cmdtxtoarg \) \( \cdot \) \( \frac{385}{25}, \) \( \frac{385}
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595	\cmdmthparrel	\cmdtxtcom \(\frac{574}{1183}\), \(\frac{537}{1184}\), \(\frac{562}{1825}\)
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679	\cmdmthparrel       683         \cmdmthparset       664         \cmdmthparsig       638         \cmdmthparsnt       764	\cmdtxtcom \( \frac{574}{1183}, \) \( 1184, \) \( 1185 \) \( \cmdtxtdef \) \( \cdot \) \( \frac{537}{25}, \) \( \cmdtxtname \) \( \frac{562}{25}, \) \( \cmdtxtoarg \) \( \cdot \) \( \frac{385}{25}, \) \( \frac{385}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660	\cmdmthparrel       683         \cmdmthparset       664         \cmdmthparsig       638         \cmdmthparsnt       764         \cmdmthparstr       651	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\cmdtxtdef \cdots \begin{array}{c} 537 \\cmdtxtname \cdots \begin{array}{c} 562, 1825 \\cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\cmdtxtoargabr \cdots \begin{array}{c} 553 \\cdots \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargsnt       760	\cmdmthparrel       683         \cmdmthparset       664         \cmdmthparsig       638         \cmdmthparsnt       764         \cmdmthparstr       651         \cmdmthparsym       709, 737         \cmdmthparsymelm       736	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\cmdtxtdef \cdot \begin{array}{c} 537 \\cmdtxtname \cdot \begin{array}{c} 562, 1825 \\cmdtxtoarg \cdot \begin{array}{c} 385, 401 \\cmdtxtoargabr \cdot \begin{array}{c} 553 \\cmdtxtoargcom \cdot \begin{array}{c} 578 \\cdot \end{array}
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647	\cmdmthparrel       683         \cmdmthparset       664         \cmdmthparsig       638         \cmdmthparsnt       764         \cmdmthparstr       651         \cmdmthparsym       709, 737         \cmdmthparsymelm       736         \cmdmthparvec       804	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         660           \cmdmthargset         634           \cmdmthargsnt         760           \cmdmthargsym         705, 731	\cmdmthparrel         683           \cmdmthparset         664           \cmdmthparsig         638           \cmdmthparsnt         764           \cmdmthparstr         651           \cmdmthparsym         709, 737           \cmdmthparsymelm         736           \cmdmthparvec         804           \cmdmthrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargsym         705, 731           \cmdmthargsymelm         730	\cmdmthparrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401         \cmdtxtoparabr       557
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647           \cmdmthargsym         705, 731           \cmdmthargsymelm         730           \cmdmthargvec         800	\cmdmthparrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401         \cmdtxtoparabr       557         \cmdtxtoparcom       582
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647           \cmdmthargsym         705         731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthcls         619	\cmdmthparrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401         \cmdtxtoparabr       557         \cmdtxtoparcom       582         \cmdtxtopardef       545
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647           \cmdmthargsym         705, 731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthcls         619           \cmdmthelm         716, 729	\cmdmthparrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401         \cmdtxtoparabr       557         \cmdtxtoparcom       582         \cmdtxtopardef       545         \cmdtxtoparname
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647           \cmdmthargsym         705         731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthcls         619	\cmdmthparrel	\cmdtxtcom \begin{array}{c} \cmdtxtcom \begin{array}{c} \sqrt{574}, 1183, 1184, 1185 \\cmdtxtdef \cdot \begin{array}{c} \sqrt{537} \\cmdtxtname \cdot \begin{array}{c} \begin{array}{c} \sqrt{562}, 1825 \\cmdtxtoargabr \cdot \begin{array}{c} \begin{array}{c} \sqrt{553} \\cmdtxtoargcom \cdot \begin{array}{c} \begi
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargstr         647           \cmdmthargsym         705, 731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthcls         619           \cmdmthelm         716, 729	\cmdmthparrel	\cmdtxtcom       574, 1183, 1184, 1185         \cmdtxtdef       537         \cmdtxtname       562, 1825         \cmdtxtoarg       385, 401         \cmdtxtoargabr       553         \cmdtxtoargcom       578         \cmdtxtoargdef       541         \cmdtxtoargname       566         \cmdtxtopar       395, 401         \cmdtxtoparabr       557         \cmdtxtoparcom       582         \cmdtxtopardef       545         \cmdtxtoparname
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargsym         705, 731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthelm         716, 729           \cmdmthfam         606	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsnt 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 677, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 658, 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302,	\cmdtxtcom \begin{array}{c} \cmdtxtcom \begin{array}{c} \sqrt{574}, 1183, 1184, 1185 \\cmdtxtdef \cdot \begin{array}{c} \sqrt{537} \\cmdtxtname \cdot \begin{array}{c} \begin{array}{c} \sqrt{562}, 1825 \\cmdtxtoargabr \cdot \begin{array}{c} \begin{array}{c} \sqrt{553} \\cmdtxtoargcom \cdot \begin{array}{c} \begi
\cmdmthargfun         692           \cmdmthargmat         787           \cmdmthargname         595           \cmdmthargrel         679           \cmdmthargset         660           \cmdmthargsig         634           \cmdmthargsnt         760           \cmdmthargsym         705, 731           \cmdmthargsymelm         730           \cmdmthargvec         800           \cmdmthelm         716, 729           \cmdmthfam         606           \cmdmthfrm         771	\cmdmthparrel	\cmdtxtcom \begin{array}{c} \cmdtxtcom \begin{array}{c} \sqrt{574}, 1183, 1184, 1185 \\cmdtxtdef \cdot \sqrt{537} \\cmdtxtname \sqrt{562}, 1825 \\cmdtxtoarg \sqrt{385}, 401 \\cmdtxtoargabr \sqrt{553} \\cmdtxtoargcom \sqrt{578} \\cmdtxtoargdef \sqrt{541} \\cmdtxtoargname \sqrt{566} \\cmdtxtopar \sqrt{395}, 401 \\cmdtxtoparabr \sqrt{557} \\cmdtxtoparabr \sqrt{557} \\cmdtxtopardtxtoparcom \sqrt{582} \\cmdtxtopardef \sqrt{545} \\cmdtxtoparname \sqrt{570}, 1243, 1246, 1249, 1252, 1255, 1258, 1319, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargsrt       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfrm       771         \cmdmthfun       690,         1276, 1285, 1343, 1362,	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparsit 651 \cmdmthparsym 709, 737 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparsymelm 677, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\cmdtxtdef \cdot \begin{array}{c} 537 \\cmdtxtname \cdot \begin{array}{c} 562, 1825 \\cmdtxtoarg \cdot \begin{array}{c} 385, 401 \\cmdtxtoargabr \cdot \begin{array}{c} 578 \\cmdtxtoargdef \cdot \begin{array}{c} 541 \\cmdtxtoargname \cdot \begin{array}{c} 566 \\cmdtxtopar \cdot \begin{array}{c} 395, 401 \\cmdtxtoparabr \cdot \begin{array}{c} 557 \\cmdtxtoparcom \cdot \begin{array}{c} 582 \\cmdtxtopardef \cdot \begin{array}{c} 545 \\cmdtxtoparname \cdot \begin{array}{c} 570, 1243, 1246, 1249, 1252, 1255, 1258, 1319, 1322, 1325, 1328, 1331, 1334, 1347, 1350, 1353, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargstr       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfun       690         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdot \begin{array}{c} 537 \\ \cmdtxtname \cdot \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdot \begin{array}{c} 385, 401 \\ \cmdtxtoargcom \cdot \begin{array}{c} 578 \\ \cmdtxtoargdef \cdot \begin{array}{c} 541 \\ \cmdtxtoargname \cdot \begin{array}{c} 566 \\ \cmdtxtoparabr \cdot \begin{array}{c} 395, 401 \\ \cmdtxtoparabr \cdot \begin{array}{c} 557 \\ \cmdtxtoparabr \cdot \begin{array}{c} 557 \\ \cmdtxtopardef \cdot \begin{array}{c} 545 \\ \cmdtxtoparame \cdot \begin{array}{c} 545 \\ \cmdtxtoparname \cdot \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargstr       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfrm       771         \cmdmthfun       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargcom \cdots \begin{array}{c} 578 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 395, 401 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtopardef \cdots \begin{array}{c} 545 \\ \cmdtxtopardef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargsrt       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfrm       771         \cmdmthfrm       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748         \cmdmthlrel       752	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext 668, 1223, 1231,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargabr \cdots \begin{array}{c} 578 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtoparabr \cdots \begin{array}{c} 545 \\ \cmdtxtoparadef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \\ 1504, 1507, 1510, 1519, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargsnt       760         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfrm       771         \cmdmthfun       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748         \cmdmthlrel       752         \cmdmthluop       746	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 658, 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext 668, 1223, 1231, 1268, 1289, 1297, 1301,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargabr \cdots \begin{array}{c} 578 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtoparabr \cdots \begin{array}{c} 545 \\ \cmdtxtoparadef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \\ 1504, 1507, 1510, 1519, \\ 1520, 1561, 1584, 1609, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargstr       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfun       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748         \cmdmthlrel       752         \cmdmthluop       746         \cmdmthluop       746         \cmdmthluop       785	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext 668, 1223, 1231, 1268, 1289, 1297, 1301, 1308, 1342, 1361, 1406,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargabr \cdots \begin{array}{c} 578 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 395, 401 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtoparabr \cdots \begin{array}{c} 582 \\ \cmdtxtoparadef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \\ 1504, 1507, 1510, 1519, \\ 1520, 1561, 1584, 1609, \\ 1656, 1690, 1701, 1724, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargstr       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfun       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748         \cmdmthlrel       752         \cmdmthluop       746         \cmdmthhat       785         \cmdmthnat       785         \cmdmthname       593	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext 668, 1223, 1231, 1268, 1289, 1297, 1301, 1308, 1342, 1361, 1406, 1416, 1430, 1433, 1449,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargabr \cdots \begin{array}{c} 553 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtoparabr \cdots \begin{array}{c} 545 \\ \cmdtxtoparadef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \\ 1504, 1507, 1510, 1519, \\ 1520, 1561, 1584, 1609, \\ 1656, 1690, 1701, 1724, \\ 1727, 1742, 1757, 1776, \end{array}
\cmdmthargfun       692         \cmdmthargmat       787         \cmdmthargname       595         \cmdmthargrel       679         \cmdmthargset       660         \cmdmthargsig       634         \cmdmthargstr       647         \cmdmthargsym       705, 731         \cmdmthargsymelm       730         \cmdmthargvec       800         \cmdmthelm       716, 729         \cmdmthfam       606         \cmdmthfun       690,         1276, 1285, 1343, 1362,         1649, 1854, 1857, 2227         \cmdmthlbop       748         \cmdmthlrel       752         \cmdmthluop       746         \cmdmthluop       746         \cmdmthluop       785	\cmdmthparrel 688 \cmdmthparset 664 \cmdmthparsig 638 \cmdmthparsig 638 \cmdmthparsit 764 \cmdmthparstr 651 \cmdmthparsym 709, 737 \cmdmthparsymelm 736 \cmdmthparsymelm 736 \cmdmthparvec 804 \cmdmthrel 657, 1227, 1278, 1646, 1647, 1855, 1858, 2228 \cmdmthset 669, 1271, 1273, 1282, 1284, 1290, 1292, 1302, 1304, 1839, 1841, 1846, 1848, 1865, 1867, 1877, 1879, 1884, 1886, 2213, 2215, 2222, 2224, 2247 \cmdmthsetext 668, 1223, 1231, 1268, 1289, 1297, 1301, 1308, 1342, 1361, 1406,	\cmdtxtcom \begin{array}{c} 574, 1183, 1184, 1185 \\ \cmdtxtdef \cdots \begin{array}{c} 537 \\ \cmdtxtname \cdots \begin{array}{c} 562, 1825 \\ \cmdtxtoarg \cdots \begin{array}{c} 385, 401 \\ \cmdtxtoargabr \cdots \begin{array}{c} 578 \\ \cmdtxtoargdef \cdots \begin{array}{c} 541 \\ \cmdtxtoargname \cdots \begin{array}{c} 566 \\ \cmdtxtoparabr \cdots \begin{array}{c} 395, 401 \\ \cmdtxtoparabr \cdots \begin{array}{c} 557 \\ \cmdtxtoparabr \cdots \begin{array}{c} 582 \\ \cmdtxtoparadef \cdots \begin{array}{c} 545 \\ \cmdtxtoparname \cdots \cdots \begin{array}{c} 570, 1243, 1246, 1249, \\ 1252, 1255, 1258, 1319, \\ 1322, 1325, 1328, 1331, \\ 1334, 1347, 1350, 1353, \\ 1372, 1436, 1437, 1489, \\ 1492, 1495, 1498, 1501, \\ 1504, 1507, 1510, 1519, \\ 1520, 1561, 1584, 1609, \\ 1656, 1690, 1701, 1724, \end{array}

```
2196, 2197, 2198, 2199,
                                       100, 105, 106, 111, 112,
                                                                         1979, 1982, 1985, 1987,
       2200, 2201, 2202, 2204,
                                       116, 121, 122, 127, 128, 131
                                                                         1994, 1996, 1999, 2002,
                                                                        2004, 2011, 2013, 2016,
      2205, 2207, 2208, 2235,
                                                                        2019, 2021, 2026, 2028,
      2237, 2238, 2239, 2240,
                                 \DeclareRobustCommand ...
                                       .. 152, 157, 159, 161,
                                                                        2031, 2034, 2036, 2043,
      2241, 2242, 2243, 2244
                                       163, 166, 175, 179, 184,
                                                                        2045, 2048, 2051, 2053,
\cmdtxtpar ..... <u>390</u>, 401
                                       186, 188, 191, 195, 199,
\cmdtxtparabr .....
                                                                        2060, 2062, 2065, 2068,
                           555
                                       202, 204, 206, 299, 305,
                                                                        2070, 2077, 2079, 2082,
                           <u>5</u>80
\cmdtxtparcom .....
                                       311, 317, 323, 329, 335,
                                                                        2085, 2087, 2094, 2096,
\cmdtxtpardef .....
                           543
                                       341, 347, 353, 359, 362,
                                                                        2099, 2102, 2104, 2111,
\cmdtxtparname .....
                           568
                                       364, 366, 368, 370, 375,
                                                                        2113, 2116, 2119, 2121,
\cmodels .... <u>907</u>
                                       380, 385, 390, 395, 400,
                                                                        2128, 2130, 2133, 2136,
\verb|\cmp| \dots \dots \underline{1035}
                                       412, 418, 424, 430, 436,
                                                                        2138, 2145, 2147, 2150,
\cnf ..... <u>1421</u>
                                       442, 448, 454, 460, 466,
                                                                        2153, 2155, 2162, 2164,
\Cnt .... <u>1409</u>
                                       472, 475, 477, 479, 481,
                                                                        2167, 2170, 2172, 2319
\cod ..... \underline{1025}
                                       483, 488, 491, 494, 497,
                                                                 \DeclareRobustCommandx ..
\coimplies ..... <u>902</u>
                                       500, 503, 814, 882, 886,
                                                                         ... 301, 303, 307, 309,
\Coloneqq ..... 887
                                       889, 891, 894, 896, 898,
                                                                        313, 315, 319, 321, 325,
\coloneqq ..... 887
                                       900, 902, 904, 907, 909,
                                                                        327, 331, 333, 337, 339,
\com@false \dots 56, 77, 79
                                       911, 913, 916, 918, 920,
                                                                        343, 345, 349, 351, 355,
\com@true ..... 78
                                       923, 925, 927, 929, 931,
                                                                        357, 403, 414, 416, 420,
\conset ..... 1455, 1456
                                       933, 935, 940, 944, 948,
                                                                        422, 426, 428, 432, 434,
\ConSig ..... <u>1452</u>
                                       952, 956, 960, 964, 968,
                                                                        438, 440, 444, 446, 450,
\consig ..... 1452, 1453
                                       972, 976, 980, 984, 989,
                                                                        452, 456, 458, 462, 464,
\ConStr ..... <u>1479</u>
                                       991, 993, 995, 997, 999,
                                                                        468, 470, 506, 512, 514,
\constr ..... 1479, 1480
                                       1001, 1003, 1005, 1007,
                                                                        516, 518, 520, 522, 524,
\consym ..... 1454, 1456
                                       1009, 1011, 1013, 1015,
                                                                        526, 528, 537, 539, 541,
\Contd ..... 873
                                       1017, 1019, 1022, 1031,
                                                                        543, 545, 549, 551, 553,
\contd ..... 865
                                       1033, 1035, 1038, 1059,
                                                                        555, 557, 562, 564, 566,
\coWMPL .... 1603
                                       1061, 1063, 1065, 1067,
                                                                        568, 570, 574, 576, 578,
\coWMSO ..... 1549
                                       1069, 1071, 1073, 1075,
                                                                        580, 582, 593, 595, 597,
\coWMSOL ..... 1547
                                       1077, 1079, 1081, 1083,
                                                                        599, 601, 606, 608, 610,
\coWMTL .... 1580
                                       1085, 1087, 1089, 1091,
                                                                        612, 614, 619, 621, 623,
\coWPL ..... 1591
                                       1093, 1096, 1098, 1100,
                                                                        625, 627, 632, 634, 636,
\coWSO ..... 1531
                                       1102, 1104, 1107, 1109,
                                                                         638, 640, 645, 647, 649,
\coWSOL ..... 1529
                                       1111, 1113, 1115, 1117,
                                                                         651, 653, 658, 660, 662,
\coWTL ..... 1568
                                       1119, 1121, 1123, 1125,
                                                                        664, 666, 668, 677, 679,
\crv@false ..... 40
                                       1127, 1129, 1146, 1148,
                                                                        681, 683, 685, 690, 692,
\crv@true ......
                                       1150, 1152, 1375, 1377,
                                                                        694, 696, 698, 703, 705,
\csdef 143, 144, 145, 146, 147,
                                       1379, 1440, 1442, 1523,
                                                                        707, 709, 711, 716, 718,
      376, 381, 386, 391, 396,
                                       1525, 1529, 1531, 1535,
                                                                        720, 722, 724, 727, 730,
      404, 489, 492, 495, 498,
                                       1537, 1541, 1543, 1547,
                                                                        733, 736, 739, 746, 748,
      501, 507, 1163, 1179, 1181
                                       1549, 1564, 1568, 1572,
                                                                        752, 758, 760, 762, 764,
\csedef ..... 177, 181
                                       1576, 1580, 1587, 1591,
                                                                        766, 771, 773, 775, 777,
\csname . 167, 168, 169, 170,
                                       1595, 1599, 1603, 1612,
                                                                        779, 785, 787, 789, 791,
      171, 172, 173, 178, 182,
                                       1616, 1618, 1620, 1626,
                                                                         793, 798, 800, 802, 804,
      378, 379, 383, 384, 388,
                                       1628, 1630, 1632, 1634,
                                                                        806, 1906, 1923, 1940,
      389, 393, 394, 398, 399,
                                       1636, 1659, 1663, 1665,
                                                                        1957, 1974, 1991, 2008,
      406, 407, 415, 417, 509, 510
                                       1667, 1671, 1675, 1679,
                                                                        2040, 2057, 2074, 2091,
\CTL ..... <u>1723</u>
                                       1681, 1683, 1693, 1695,
                                                                        2108, 2125, 2142, 2159
\CTLP ... 1746, 1750, 1752, 1754
                                       1697, 1704, 1706, 1708,
                                                                  \DecSet ..... <u>1850</u>
\CTLS ... 1761, 1765, 1767, 1769
                                       1730, 1734, 1736, 1738,
                                                                  \decset ..... 1851, 1852
\CurrentOption ..... 131
                                       1745, 1749, 1751, 1753,
                                                                 \decsym ..... 1850, 1852
                                       1760, 1764, 1766, 1768,
                                                                 \Dedicto ..... 843
              \mathbf{D}
                                       1779, 1783, 1785, 1787,
                                                                 \dedicto ..... 822
1794, 1798, 1800, 1802,
                                                                 \Defacto .....
                                                                                             844
\DeclareMathAlphabet ....
                                       1809, 1813, 1815, 1817,
                                                                 \defacto .....
       ..... 291, 292, 293, 294
                                       1820, 1822, 1892, 1894,
                                                                  \defcomcls ..... <u>1162</u>,
\DeclareMathOperator 1041, 1043
                                       1897, 1900, 1902, 1909,
                                                                        1187, 1188, 1189, 1190
\DeclareOption 12, 13, 17, 21,
                                       1911, 1914, 1917, 1919,
      25, 29, 33, 37, 41, 45,
                                       1926, 1928, 1931, 1934,
                                                                  \defcomclsgrp ......
                                                                         .... <u>1164</u>, 1192, 1193,
      49, 54, 55, 60, 61, 67,
                                       1936, 1943, 1945, 1948,
      68, 72, 73, 78, 79, 84,
                                       1951, 1953, 1960, 1962,
                                                                         1194, 1195, 1196, 1197,
      85, 89, 90, 94, 95, 99,
                                       1965, 1968, 1970, 1977,
                                                                        1198, 1199, 1200, 1201
```

\defcomclsgrpcmd 1174,	\ECTLS 1766	1961, 1963, 1969, 1971,
1175, 1176, 1177, 1178	\EDGPL 1943	1978, 1980, 1986, 1988,
\defcomclsgrpred 1168, 1169,	\EdgRel 1226	1995, 1997, 2003, 2005,
1170, 1171, 1172, 1173	\edgrel 1226, 1227	2012, 2014, 2020, 2022,
\defcomclsgrpsem	\EDGSL 2077	2027, 2029, 2035, 2037,
1165, 1166, 1167	\EEGPL 1977	2044, 2046, 2052, 2054,
\defcomhrc <u>1180</u> , <u>1203</u> ,	\EEGSL 2111	2061, 2063, 2069, 2071,
1204, 1205, 1206, 1207,	•	2078, 2080, 2086, 2088,
	\EExs <u>1820</u>	
1208, 1209, 1210, 1211	\EFAGPL 1968	2095, 2097, 2103, 2105,
\defeq <u>882</u>	\EFAGSL 2102	2112, 2114, 2120, 2122,
\defval $154, 308, 310,$	\EFBGPL 2002	2129, 2131, 2137, 2139,
320, 322, 332, 334, 344,	\EFBGSL	2146, 2148, 2154, 2156,
346, 356, 358, 406, 407,	•	2163, 2165, 2171, 2173
	\EFCGPL 1934	
421, 423, 433, 435, 445,	\EFCGSL 2068	\ent <u>1309</u>
447, 457, 459, 469, 471,	\EFDGPL 1951	\enumeration $\underline{938}$
509, 510, 671, 673, 1020,	\EFDGSL 2085	\EOGPL 1909
1163, 1165, 1166, 1181,	•	\EOGSL 2043
1631, 1637, 1821, 1823	\EFEGPL 1985	\EPL 1892
, , , , , , , , , , , , , , , , , , , ,	\EFEGSL 2119	
\deg	\EFNGSL 2153	\EPTL 1695
\Delta 1206, 1207	\EFOGPL 1917	\equiv 912, 914
\delta 1856, 2226	\EFOGSL 2051	\ergo <u>827</u>
\denot 916	•	\Errata 848
\dep 1419	\EFPL 1900	\errata 828
<u> </u>	\EFSL 2034	
\der 927	\EFXGPL 2019	\Erratum <u>849</u>
\Dere <u>845</u>	\EFXGSL 2170	\erratum <u>829</u>
\dere 824	•	\esc 1309
\DF 1488	\EG <u>1346</u>	\ESL 2026
\DFA 2190	\Eg <u>847</u>	\etal 830
	\eg <u>826</u>	<u> </u>
\DGPL 1940, 1944, 1946, 1949	\EGPL 1974, 1978, 1980, 1983	\etc <u>831</u>
\DGSL 2074, 2078, 2080, 2083		\evn <u>1133</u>
\Diamond 1624	\EGSL 2108, 2112, 2114, 2117	\EvnSym
\DirSet 2248	\ELH <u>1208</u>	\evnsym 1336, 1337
	\else 153, 155, 164, 263, 277	(5122)
\direct 9940 9950	(erse 100, 100, 104, 200, 211	\FracutoOntions 133
\dirset 2249, 2250		\ExecuteOptions 133
\dirsym 2248, 2250	\ELTL 1706	\EXGPL 2011
	\ELTL 1706 \em 536, 548	-
\dirsym 2248, 2250	\ELTL	\EXGPL 2011
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825	\ELTL 1706 \em 536, 548	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206	\ELTL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631	\ELTL 1706 \em . 536, 548 \EMC 1665 \EML 1618 \empchk 152, 158, 160,	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421	\ELTL	\EXGPL
\dirsym	\ELTL	\EXGPL
\dirsym	LTL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025	\ELTL	\EXGPL
\dirsym	LTL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814	LTL	\EXGPL
\dirsym	ELTL	\EXGPL
\dirsym	\text{ELTL} 1706 \text{\text{\cong }} 1706 \text{\cong } 536, 548 \text{\cong } 1665 \text{\cong } 1618 \text{\cong } 162, 158, 160, \text{\cong } 162, 168, 360, 473, 671, 673 \text{\cong } 1038 \text{\cong } 1022 \text{\cong } 1146 \text{\cong } 122, 1823 \text{\cong } 167, 168, 169, 170, \text{\cong } 171, 172, 173, 178, 182,	\EXGPL
\dirsym	LTL	\EXGPL
\dirsym	\text{ELTL} 1706 \text{\text{\cong }} 1706 \text{\cong } 536, 548 \text{\cong } 1665 \text{\cong } 1618 \text{\cong } 162, 158, 160, \text{\cong } 162, 168, 360, 473, 671, 673 \text{\cong } 1038 \text{\cong } 1022 \text{\cong } 1146 \text{\cong } 122, 1823 \text{\cong } 167, 168, 169, 170, \text{\cong } 171, 172, 173, 178, 182,	\EXGPL
\dirsym	LTL	\EXGPL
\dirsym	\ELTL 1706 \em 536, 548 \EMC 1665 \EML 1618 \empchk 152, 158, 160,	\EXGPL
\dirsym	\ELTL 1706 \em 536, 548 \EMC 1665 \EML 1618 \empchk 152, 158, 160,	\EXGPL
\dirsym	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ 1771 \EAFMC 1681 \EAGPL 1960	LITL	\EXGPL
\dirsym	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1785	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1775 \EATLP 1800	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1775 \EATLP 1800 \EATLS 1815	\text{LIL} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1775 \EATLP 1800	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \E 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1775 \EATLP 1800 \EATLS 1815	\text{LIL} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\text{LTL} 1706 \text{\text{em}} 536, 548 \text{\text{LMC}} 1665 \text{\text{LML}} 1618 \text{\text{\text{empchk}} 152, 158, 160, 162, 168, 360, 473, 671, 673 \text{\text{\text{emptyfun}} 1028 \text{\text{\text{emptyfun}} 1022 \text{\text{\text{emptyseq}} 1146 \text{\text{\text{emptyseq}} 1146} \text{\text{\text{emptyset}} 1821, 1823 \text{\text{\text{endcsname}} 167, 168, 169, 170, 171, 172, 173, 178, 182, 378, 379, 383, 384, 388, 389, 393, 394, 398, 399, 406, 407, 415, 417, 509, 510 \text{\text{\text{endinput}} 2324} \text{\text{\text{ENGSL}} 2145 \text{\text{\text{enmtls@false}} 29 \text{\text{\text{enmtls@false}} 29 \text{\text{\text{ensuremath}} 360, 415, 417, 1042, 1044, 1378, 1380, 1619, 1621, 1656, 1666, 1668, 1682, 1684, 1696, 1698, 1707, 1709, 1737, 1739, 1752, 1754, \text{\tex	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\text{LTL} \ 1706 \text{\text{em}} \ 536, 548 \text{\text{LMC}} \ 1665 \text{\text{LML}} \ 1618 \text{\text{\text{empchk}} \ 152, 158, 160, \\ \text{162, 168, 360, 473, 671, 673} \text{\text{\text{emptyfun}} \ 1038 \text{\text{\text{emptyfun}} \ 1022 \text{\text{\text{emptyseq}} \ 1146 \text{\text{\text{emptyseq}} \ 1821, 1823 \text{\text{\text{emptyset}} \ 1821, 1823 \text{\text{\text{endcsname}} 167, 168, 169, 170, \\ \text{171, 172, 173, 178, 182, \\ \text{378, 379, 383, 384, 388, \\ \text{389, 393, 394, 398, 399, \\ \text{406, 407, 415, 417, 509, 510} \text{\text{\text{endinput}} \ 2324 \text{\text{\text{ENGSL}} \ 2145 \text{\text{\text{enmtls@false}} \ 29 \text{\text{\text{enmtls@false}} \ 29 \text{\text{\text{ensuremath}} \ 360, 415, \\ \text{417, 1042, 1044, 1378, \\ \text{1380, 1619, 1621, 1656, \\ \text{1666, 1668, 1682, 1684, \\ \text{1696, 1698, 1707, 1709, \\ \text{1737, 1739, 1752, 1754, \\ \text{1767, 1769, 1786, 1788, \\\ \end{arguments} \text{\text{\text{1788,}} \\ \text{\text{\text{1767, 1769, 1786, 1788, \\\\\\\\\ \end{arguments}} \text{\text{\text{1788,}} \\ \text{\tex	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\text{LTL} \ 1706 \text{\text{em}} \ 536, 548 \text{\text{LMC}} \ 1665 \text{\text{LML}} \ 1618 \text{\text{\text{empchk}} \ 152, 158, 160, \\	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	LITL	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\text{LTL} \ 1706 \text{\text{em}} \ 536, 548 \text{\text{LMC}} \ 1665 \text{\text{LML}} \ 1618 \text{\text{\text{empchk}} \ 152, 158, 160, \\	\EXGPL
\dirsym 2248, 2250 \Divideetimpera 846 \divideetimpera 825 \DLH 1206 \DMod 1624, 1629, 1631 \dnf 1421 \do 176, 180 \dom 1025 \DontPrintSemicolon 2299 \dotcheck 814 \downarrow 1032 \DTA 2235 \dual 923  E  \E \ 1771 \EAFMC 1681 \EAGPL 1960 \EAGSL 2094 \Easy 1183 \EATL 1785 \EATLP 1800 \EATLS 1815 \EBF 1377 \EBGPL 1994 \EBGSL 2128 \EBH 1208 \ECGPL 1926 \ECGSL 2060	\text{LTL} \ 1706 \text{\text{\text{em}} \ 536, 548} \text{\text{LMC}} \ 1665 \text{\text{LML}} \ 1618 \text{\text{\text{empchk}} \ 152, 158, 160, \ 162, 168, 360, 473, 671, 673 \text{\text{\text{emptyfun}} \ 1038} \text{\text{\text{emptyfun}} \ 1022 \text{\text{\text{emptyseq}} \ 1146 \text{\text{\text{emptyseq}} \ 1821, 1823 \text{\text{\text{emptyset}} \ 1821, 1823 \text{\text{\text{emptyset}} \ 1821, 173, 178, 182, \ 378, 379, 383, 384, 388, \ 389, 393, 394, 398, 399, \ 406, 407, 415, 417, 509, 510 \text{\text{\text{endinput}} \ 2324 \text{\text{\text{ENGSL}} \ 2145 \text{\text{\text{enmtls@false}} \ 29 \text{\text{\text{enmtls@false}} \ 29 \text{\text{\text{ensuremath}} \ 360, 415, \ 417, 1042, 1044, 1378, \ 1380, 1619, 1621, 1656, \ 1666, 1668, 1682, 1684, \ 1696, 1698, 1707, 1709, \ 1737, 1739, 1752, 1754, \ 1767, 1769, 1786, 1788, \ 1801, 1803, 1816, 1818, \ 1893, 1895, 1901, 1903, \ 1910, 1912, 1918, 1920, \ \end{\text{\text{\text{engl}}} \text{\text{\text{\text{engl}}} \text{\text{\text{\text{1}}} \text{\te	\EXGPL

\FECDI 1000 1006 1000	\ CEC 2202	\:\
\FEGPL 1982, 1986, 1988 \FEGSL 2116, 2120, 2122	\GFG	\int 1311 \interdisplaylinepenalty 219
\Ff 1384	\GML 1608	\itr 176, 177, 178, 180, 181, 182
\ffsym 1386, 1387	\GoTo	(161 170, 177, 170, 100, 101, 102
\fi 153,	\grp@false	K
155, 164, 220, 225, 231,	\grp@true 84	\kern 1045
236, 251, 256, 271, 279,	\GrpName 1219	\KrpStr
280, 284, 286, 584, 808,	\grpname 1219, 1220	\krpstr 1639, 1640
875, 1156, 1212, 1235,	\Guess	. 1
1364, 2183, 2256, 2263,	<u></u>	${f L}$
2284, 2285, 2292, 2322	Н	\LAA11 <u>1512</u>
\fig@false 110, 112	\H	\laallsym 1514, 1515
\fig@true 111	\Hard <u>1183</u>	\labFun <u>1648</u>
\fix <u>1047</u>	\HstSet <u>1287</u> , <u>1862</u>	\labsym 1648, 1649
\flat 2175	\hstset	\LA11 <u>1400</u>
\floor <u>1119</u>	1288, 1289, 1290, 1292,	\lallsym 1402, 1403
\FNGSL 2150, 2154, 2156	1863, 1864, 1865, 1867	\Lambda 2249
\fnttls@false 37	\hstsym	\lambda 1648
\fnttls@true 36	1287, 1289, 1291, 1293,	\land 1392
\F0 1443	1862, 1864, 1866, 1868	\Lang
\F0GPL 1914, 1918, 1920	\hypersetup 241	\langle
\F0GSL 2048, 2052, 2054	\hypref@false 33	966, 967, 970, 971, 978,
\F0L	\hypref@true 32	979, 982, 983, 1631, 1821 \LaTex
\footnotesize 1044	I	\lbrace 994, 996, 1002, 1004
\forall 1380, 1402,	\ie 832	\lceil
1412, 1413, 1621, 1668,	\IF	\lambda control contro
1684, 1698, 1709, 1739,	\if 153, 155, 164	\LCoi 1396
1754, 1769, 1788, 1803, 1818, 1895, 1903, 1912,	\if@twocolumn 137, 275	\lcoimp
1920, 1929, 1937, 1946,	\ifalg@ 126, 2297	\lcoisym 1398, 1399
1954, 1963, 1971, 1980,	\ifamsdef@ 16, 214	\LCon <u>1392</u>
1988, 1997, 2005, 2014,	\ifamsthm@ 20, 222	\lconsym 1392, 1393
2022, 2029, 2037, 2046,	\ifaut@ 98, 2188	\LDis <u>1392</u>
2054, 2063, 2071, 2080,	\ifaux@ 11, 212	$\label{eq:ldissym} 1394, \overline{1395}$
2088, 2097, 2105, 2114,	\ifchgbar@ 44, 268	\LEExs <u>1512</u>
2122, 2131, 2139, 2148,	\ifcom@ 77, 1161	\leexssym 1512, 1513
2156, 2165, 2173, 2317	\ifcrv@ 40, 258	\left $427, 451, 919, 942,$
\FPL 1897, 1901, 1903	\ifcsdef 137	946, 950, 954, 958, 962,
\FPT <u>1187</u>	\ifdef 291, 292, 293, 294	966, 970, 974, 978, 982,
\free <u>1417</u>	\ifenmtls@ 28, 233	986, 994, 1002, 1010,
\frm@false 104, 106	\iff	1016, 1110, 1116, 1122,
\frm@true 105	\iffig@ 110, 2268	1128, 1151, 1637, 1823
\From <u>2309</u>	\iffnttls@ 36, 253	\Leftarrow 899, 901
\FSL 2031, 2035, 2037	\iffrm@ 104, 2261	\Leftrightarrow 903, 905
\fst <u>1154</u>	\ifgam@ 88, 1240	\leftrightarrow 892, 1398
\funset 1461, 1462	\ifgrp@ 83, 1217 \ifhypref@ 32, 238	\len
\FunSig	\iflinprere	\let 2500 \let 1717, 1718, 1719
\funsig 1458, 1459	\iflog@ 93, 1369	\LExs 1417, 1718, 1719
\FunStr	\ifmth@ 71, 880	\lexssym 1400, 1401
\funsym 1461, 1462 \funsym 1460, 1462	\ifmthgen@ 59, 589	\lfloor 1122, 1124
\FVarSet 1552	\ifp 1047	\lift <u>1315</u>
\fvarset 1553, 1554	\iftab@ 120, 2290	\LImp 1396
\fvarsym 1552, 1554	\ifthmtls@ 24, 227	\limp <u>889</u>
\FXGPL 2016, 2020, 2022	\iftxt@ 66, 813	\limpsym 1396, 1397
\FXGSL 2167, 2171, 2173	\iftxtgen@ 53, 534	\linenumbers 276, 278
, ,	\ifwrpfig@ 115, 2281	\linnum@false 48
${f G}$	\iht <u>867</u>	\linnum@true 49
$\verb \gam@false  \dots \dots 56, 62, 88, 90 $	\implied $\underline{898}$	\llbracket 919, 921
\gam@true 89	\implies $894$	\llcorner 1044
\Game 1279	\inf <u>1141</u>	\LNeg <u>1388</u>
\GameName	\infty 1066, 1070, 1072,	\lnegsym 1388, 1389
\gamename 1279, 1280	1074, 1078, 1080, 1082,	\LNot <u>1388</u>
\gcd <u>1143</u>	1086, 1088, 1090, 1094	\lnotsym 1390, 1391

\log@false 56, 62, 93, 95	1004, 1010, 1012, 1016,	N
\log@true	1018, 1020, 1023, 1039,	\naif
\LogSig	1018, 1020, 1023, 1039, 1097, 1099, 1101, 1103,	\naive
		\neg 1388
\logSpace	$1105, 1110, 1112, 1116, \\ 1118, 1122, 1124, 1128,$	\newcommandx 1162, 1164,
\LogStr <u>1195</u>	1130, 1147, 1151, 1153,	1167, 1173, 1178, 1180
\logstr	1206, 1207, 1208, 1209,	\newif 1175, 1176, 1180
\LogTime	1210, 1211, 1629, 1631,	16, 20, 24, 28, 32, 36,
\lor 1394 \lowercase 671, 673	1635, 1637, 1821, 1823	40, 44, 48, 53, 59, 66, 71, 77, 83, 88, 93, 98,
\lst 1154	\mth@false 62, 71, 73 \mth@true 72	
\LTL 1689		104, 110, 115, 120, 126, 137
\lvert 1116, 1118	\mtharg 477	\newmth \dots \frac{412}{423}, \dots \frac{421}{423}, \dots \dots \frac{427}{429}, \dots \
\lvert 1016, 1118 \lvert 1016, 1018,	\mthcls	\newmtharg \(\frac{424}{424}\), \(\frac{425}{435}\), \(\frac{435}{435}\), \(\frac{435}{435}\)
1110, 1112, 1151, 1153	\mthelm	\newmthargsty 430, 478, 493
1110, 1112, 1101, 1100	\mthfam	\newmtharg \\ \frac{436}{445},  447
${f M}$	\mthfrm	\newmthoargsty . 442, 480, 496
\Macro 2303	\mthfun	\newmthopar $\frac{460}{469}$ , $\frac{469}{471}$
\mathaccent 934	\mthgen@false 59, 62	\newmthoparsty . 466, 484, 502
\mathbbo 291	\mthgen@true	\newmthpar \(\frac{448}{457}\), \(\frac{459}{463}\), \(\frac{463}{465}\)
\mathbin 745	60, 72, 84, 89, 94, 99	\newmthparsty 454, 482, 499
\mathcal 591	\mthlbop 884, 885, 887,	\newmthsty \frac{418}{476}, 490
\matheus 292, 617	890, 892, 1032, 1034, 1036	\newtxt 299,
\mathfrak	\mthlrel	308, 310, 314, 316, 338, 340
\mathit 675, 769, 796	750, 895, 897, 899, 901,	\newtxtarg 311, 320, 322, 326, 328
\mathnormal 714	903, 905, 908, 910, 912, 914	\newtxtargsty \(\frac{317}{365}, \frac{383}{384}\)
\mathop 744	\mthluop <u>743</u>	\newtxtoarg \\ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \
\mathpzc 293, 630	\mthmat	\newtxtoargsty 329, 367, 388, 389
\mathrel 751, 1044	\mthoarg 479	\newtxtopar 347, 356, 358
\mathring 926	\mthopar 483	\newtxtoparsty 353, 371, 398, 399
\mathrm 656	\mthpar 481	\newtxtpar 335, 344, 346, 350, 352
\mathscr $\underline{294}$ , $\underline{604}$	\mthrel 674	\newtxtparsty $341, 369, 393, 394$
\mathsf 688, 756, 783	\mthset 655, 1060, 1062, 1064,	\newtxtsty $305$ , $363$ , $378$ , $379$
\mathtt	1068, 1076, 1084, 1092	\NGSL 2142, 2146, 2148, 2151
\max <u>1137</u>	\mthsig <u>629</u>	\nlr <u>2319</u>
\MaxSym	\mthsnt 755	\nlset 2321
\maxsym 1355, 1356	\mthstr <u>642</u>	\noexpand 178, 182
\MC 1655 \mdseries 373, 561, 573	\mthsty	\norm <u>1107</u>
\MFO 1442	$476, 478, 480, 482, 484, \underline{485}$	\normalfont . 304, 536, 561, 573 \not 897, 901, 905, 910, 914
\MFOL 1440	\mthstycls 617	\notcequiv 913
\middle 994	\mthstyelm 714	\notcmodels 909
\MIf	\mthstyfam 604	\notcoimplies 904
\min <u>1137</u>	\mthstyfrm 769	\notimplied 900
\MinSym 1355	\mthstyfun 688	\notimplies 896
\minsym $\dots \dots 1357, \overline{1358}$	\mthstylbop	\num 1096
\ML <u>1608</u>	\mthstylrel 751	\numcc 1098
\models 908, 910	\mthstyluop 744	\numco 1100
\movFun	\mthstymat 783	\numoc 1102
\MovRel <u>1277</u>	\mthstyname	\numoo 1104
\movRel <u>1853</u>	\mthstyrel 675	\nxt <u>2182</u>
\movrel 1277, 1278	\mthstyset	
\movsym 1853, 1854, 1855	\mthstysig 630 \mthstysnt 756	0
\MPL 1595, 1600, 1604	\mthstysht 643	\obsFun
\MSO 1537, 1544, 1550	\mthstysym 701	\ObsSet
\MSOL 1535, 1542, 1548	\mthstysym	\obsset 1283, 1284
\mth \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\mthsubsup 415, 417, 472	\odd
936, 938, 939, 942, 943,	\mthsym 700	\oddsym 1338, 1339
946, 947, 950, 951, 954,	\mthvec	\odot 1338, 1339
955, 958, 959, 962, 963,	\MTL 1572, 1577, 1581	\OGPL 1906, 1910, 1912, 1915
966, 967, 970, 971, 974,	\mu	\OGSL 2040, 2044, 2046, 2049
975, 978, 979, 982, 983,	\Mutatismutandis 850	\Omega 1053
986, 987, 994, 996, 1002,	\mutatismutandis 833	\omega 1052
, , , , ,		<u> </u>

\Omicron 1057	\prtsym 1340, 1342	\rmfamily 373, 573
\omicron <u>143</u> , 1056	\psn <u>2180</u>	\Role <u>862</u>
\oplus 1355	\PSpace <u>1197</u>	\role <u>860</u>
\OppSym $1260$ , $1273$ , $1274$ ,	\pthFun <u>1229</u>	\rrbracket 919, 921
1292, 1293, 1304, 1305,	\PthSet <u>1229</u> , <u>1650</u>	\rst <u>1033</u>
1841, 1842, 1867, 1868,	\pthset . $1230, 1231, \overline{1651}, \overline{1652}$	\rVert 1116, 1118
1879, 1880, 1886, 1887	\pthsym . 1229, 1231, 1650, 1652	\rvert 1016, 1018,
\oppsym 1262, 1263	\PTime 1196	1110, 1112, 1151, 1153
\Opr <u>1623</u>	\PTL	1110, 1112, 1101, 1100
\out 1311	\pto 1041	${f S}$
\overline 924, 936	\pco <u>1041</u>	\S1719
(Overline	${f Q}$	\SATG 1242
P	\QAE 1412	\SaveDoubleAcute 1718
	\QAFMC 1679	\SavePilcrow
•		\SaveSectionSymbol 1719
\PackageWarning 131	\QATL 1783	
\PDL	\QATLP 1798	\scshape 561, 573
\Percontra <u>851</u>	\QATLS 1813	\seqofcmd <u>179</u> , 192, 196
\percontra <u>834</u>	\QBF <u>1371</u>	\seqofgrklet <u>199</u> , <u>523</u>
\PH <u>1203</u>	\QCTL 1734	\seqofgrklow
\Pi 1210, 1211, 1514	\QCTLP 1749	$\underline{191}$ , 200, 203, 519, 631, 644
\pi 1229, 1295, 1650, 1870	\QCTLS 1764	\seqofgrkupp $195, 200, 205, 521$
\PL <u>1560</u> , <u>1889</u>	\QEA <u>1412</u>	\seqoflatlet $188, 517, 631, 644$
\playFun <u>1295</u>	\QLTL 1704	\seqoflatlow $184, 189, 203, 513$
\PlaySet <u>1295</u> , <u>1870</u>	\QMC 1663	\seqoflatupp $\dots 186$ ,
\playset 1296, 1297, 1871, 1872	\QML 1616	189, 205, 515, 592, 605, 618
\playsym 1295, 1297, 1870, 1872	\Qnt 1409	\seqoflet
\PlnSet 1874	\QntSet <u>1414</u>	206, 529, 657, 676, 689,
\plnset . 1875, 1876, 1877, 1879	\qntset 1415, 1416	702, 715, 757, 770, 784, 797
\plnsym . 1874, 1876, 1878, 1880	\qntsym 1414, 1416	\seqoflow <u>202</u> , 207, 525
\PlrFun <u>1275</u>	\QPSpace 1199	\seqoftag <u>175</u> , 185, 187
\plrfun 1275, 1276	\QPTime 1198	\seqofupp <u>204</u> , 207, 527
\PlrSym <u>1260</u> , 1271, 1272,	\QPTL 1693	\sequence <u>940</u>
1000 1001 1000 1000		=
1290, 1291, 1302, 1303,		\sequencel 944
1290, 1291, 1302, 1303, 1839, 1840, 1865, 1866,	R	\sequencel 944 \sequencer 948
	R \raisebox 1044	. 1
1839, 1840, 1865, 1866,		\sequencer 948
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885	\raisebox 1044	\sequencer
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym 1260, 1261	\ransebox 1044 \rangle	\sequencer       948         \sequencex       952         \sequencexl       956
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym 1260, 1261 \pm 1070, 1078, 1086	\rangle	\sequencer       948         \sequencex       952         \sequencexl       956         \sequencexr       960
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym 1260, 1261 \pm 1070, 1078, 1086 \pmapsto	\rangle	\sequencer       948         \sequencex       952         \sequencexl       956         \sequencexr       960         \set       989
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym 1260, 1261 \pm 1070, 1078, 1086 \pmapsto	\rangle	\sequencer       948         \sequencex       952         \sequencex1       956         \sequencexr       960         \set       989         \SetB       1059
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\rangle	\sequencer       948         \sequencex       952         \sequencex1       956         \sequencexr       960         \set       989         \SetB       1059         \SetC       1091         \SetCI       1093
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\rangle	\sequencer       948         \sequencex       952         \sequencex1       956         \sequencexr       960         \set       989         \SetB       1059         \SetC       1091
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\rangle	\sequencer       948         \sequencex       952         \sequencexl       956         \sequencexr       960         \set       989         \SetB       1059         \SetC       1091         \SetCI       1093         \seteq       882
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\rangle	\sequencer       948         \sequencex       952         \sequencexl       956         \sequencexr       960         \set       989         \SetB       1059         \SetC       1091         \SetCI       1093         \seteq       882         \SetF       1061
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer       948         \sequencex       952         \sequencexl       956         \sequencexr       960         \set       989         \SetB       1059         \SetC       1091         \SetCI       1093         \seteq       882         \SetF       1061         \SetInd       2300
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309,
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313,
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setIength 2301
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \set1 997 \setlength 2301 \setlx 999
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setlength 2301 \setlx 999 \SetN 1063
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2301 \setInd 997 \setlength 2301 \setl 997 \setlength 2301 \setlx 999 \SetN 1063 \SetNI 1065
1839, 1840, 1865, 1866,  1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setlength 2301 \setlx 999 \SetN 1063 \SetNI 1065 \SetQ 1075
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setlength 2301 \setlx 997 \setlength 1063 \SetNI 1065 \SetQ 1075 \SetQI 1077
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2308 \SetLind 997 \setLength 231 \SetLind 997 \SetLind 1063 \SetKwIF 1063 \SetNI 1065 \SetNI 1065 \SetQ 1075 \SetQNI 1081
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2308 \SetLind 997 \setLength 2318 \setI 997 \setLength 2301 \SetLind 997 \setLength 1065 \SetNI 1065 \SetQ 1075 \SetQI 1077 \SetQNI 1081 \SetQPI 1079
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex 956 \sequencexr 960 \set 989 \SetB 1059 \SetC 1091 \SetCI 1093 \seteq 882 \SetF 1061 \SetInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setlength 2301 \setlength 2301 \setlx 999 \SetN 1065 \SetN 1065 \SetQ 1075 \SetQNI 1077 \SetQNI 1079 \SetR 1083
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \set 989 \set 1059 \set 1091
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885 \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \set 989 \set 1059 \set 1091 \set 1091 \set 1093 \set 1091 \set 1091 \set 1001
1839, 1840, 1865, 1866, 1877, 1878, 1884, 1885  \plrsym	\raisebox	\sequencer 948 \sequencex 952 \sequencex1 956 \sequencexr 960 \set 989 \setB 1059 \setC 1091 \setCI 1093 \seteq 882 \SetF 1061 \setInd 2300 \SetKw 2302, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317 \SetKwFor 2303, 2304, 2305, 2306 \SetKwIF 2318 \setI 997 \setInd 2301 \setLu 997 \setLu 1997 \setLu 1999 \setLu

\setx 991	\tikzstyle 2271,	${f U}$
\SetZ	2273, 2275, 2277, 2279	\UAFMC 1683
\SetZI 1069	\Time 1192	\UAGPL 1962
\SetZNI 1073	\TL	\UAGSL
\SetZPI 1071	\top 1384	\UATL 1787
\sffamily 561	\TreeSet 2252	\UATLP 1802
\Sigma 1208, 1209, 1512, 2217	\treeset 2253, 2254	\UATLS 1817
\sigma 1299, 1881, 2216	\treesym 2252, 2254	\UBF 1379
\Signature 2302	\triangleq 885	\UBGPL 1996
\sim 1390	\trn 929	\UBGSL 2130
\skm <u>1477</u>	\trnFun <u>1856, 2226</u>	\UBH <u>1210</u>
\SL <u>2023</u>	\TrnRel 1645	\UCGPL 1928
\SO 1526, 1532, 1538	\trnRel $1856, \overline{2226}$	\UCGSL 2062
\SOL	\trnsym 1856, 1857,	\UCTL 1738
\sol <u>1316</u>	1858, 2226, 2227, 2228	\UCTLP 1753
\Space <u>1193</u>	\True <u>2307</u>	\UCTLS
\stackrel	\Tt <u>1384</u>	\UDGPL
\strset	\ttsym 1384, 1385	\UEGPL
1300, 1301, 1302, 1304,	\tuple <u>964</u>	\UEGSL
1882, 1883, 1884, 1886	\tuplel 968	\UFAGPL 1970
\strsym	\tupler 972	\UFAGSL
1299, 1301, 1303, 1305,	\tuplex 976	\UFBGPL 2004
1881, 1883, 1885, 1887	\tuplex1 980	\UFBGSL 2138
\SttSet <u>1843</u> , <u>2219</u>	\tuplexr 984	\UFCGPL 1936
\sttset	\txt 362	\UFCGSL 2070
1844, 1845, 1846, 1848,	\txt@false 56, 66, 68 \txt@true 67	\UFDGPL 1953
2220, 2221, 2222, 2224	\txt@true 67 \txtabr	\UFDGSL 2087
\sttsym	\txtarg 364	\UFEGPL 1987
1843, 1845, 1847, 1849, 2219, 2221, 2223, 2225	\txtcom 572	\UFEGSL
\stx 868	\txtdef 535	\UFNGSL
\sub	\txtgen@false 53, 56	\UFOGSL 2053
\suc <u>1233</u>	\txtgen@true	\UFPL 1902
\sup <u>1141</u>	. 54, 67, 78, 84, 89, 94, 99	\UFSL 2036
\SVarSet	\txtname $\underline{560}$ , $1376$ ,	\UFXGPL 2021
\svarset 1556, 1557	1441, 1443, 1524, 1526,	\UFXGSL 2172
\svarsym 1555, 1557	1530, 1532, 1536, 1538,	\ULH <u>1210</u>
\Sym	1542, 1544, 1548, 1550, 1565, 1569, 1573, 1577,	\ULTL 1708
\SymSet	1581, 1588, 1592, 1596,	\UMC 1667
\symset 2217, 2218 \symsym 2216, 2218	1600, 1604, 1613, 1617,	\UML
(Bymbym 2210, 2210	1660, 1664, 1672, 1676,	\UNGSL
${f T}$	1680, 1694, 1705, 1731,	\U0GSL 2045
\tab@false 120, 122	1735, 1746, 1750, 1761,	\upharpoonright 1034
\tab@true 121	1765, 1780, 1784, 1795,	\UPL 1894
\tau 1853	1799, 1810, 1814, 1898,	\upshape 373
\TAutSet 2246	1915, 1932, 1949, 1966, 1983, 2000, 2017, 2032,	\UPTL 1697
\tautset 2246, 2247	2049, 2066, 2083, 2100,	\usetikzlibrary 2270
\terset 1468, 1469	2117, 2134, 2151, 2168	\USL 2028
\TerSig	\txtoarg <u>366</u>	\usrmth . <u>506</u> , 513, 515, 517,
\TerStr 1483	\txtoargcom 1163, 1179	519, 521, 523, 525, 527,
\terstr 1483, 1484	\txtopar <u>370</u>	529, 594, 596, 598, 600, 602, 607, 609, 611, 613,
\tersym 1467, 1469	\txtoparcom 1181	615, 620, 622, 624, 626,
\text 302, 360, 884, 2178	\txtpar <u>368</u>	628, 633, 635, 637, 639,
\textstyle 744, 745	\txtsty	641, 646, 648, 650, 652,
\textup 884	363, 365, 367, 369, 371, <u>372</u>	654, 659, 661, 663, 665,
\thestring 670, 671, 672, 673	\txtstyabr 548	667, 678, 680, 682, 684,
\Theta 1055	\txtstycom 573	686, 691, 693, 695, 697,
\theta	\txtstydef	699, 704, 706, 708, 710,
\thmtls@false 25 \thmtls@true 24	\txtstyname 561 \txtsubsup 302, 304, 359	712, 717, 719, 721, 723, 725, 747, 749, 753, 759,
\0.1111015@01.40	(020000000	120, 141, 143, 100, 103,

761, 763, 765, 767, 772,	\usrtxt	\WCTLP 1745
774, 776, 778, 780, 786,	403, 538, 540, 542, 544,	\WCTLS 1760
788, 790, 792, 794, 799,	546, 550, 552, 554, 556,	\wghFun <u>1359</u>
801, 803, 805, 807, 1025,	558, 563, 565, 567, 569,	\WghSet
1026, 1027, 1028, 1029,	571, 575, 577, 579, 581, 583	\wghset 1360, 1361
1047, 1048, 1049, 1050,	\UXGPL 2013	\wghsym 1359, 1361
1052, 1053, 1054, 1055,	\UXGSL	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1056, 1057, 1132, 1133,	(ONGDE 2101	\widehat 928
1134, 1135, 1136, 1137,	$\mathbf{V}$	\widetilde 930
1134, 1136, 1136, 1137, 1138, 1139, 1140, 1141,	\ValSet 1428	\WinSet 1281
1142, 1143, 1144, 1154,	\valset 1429, 1430	\winset 1281, 1282
1155, 1232, 1233, 1234,	\valsym 1428, 1430	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1294, 1298, 1309, 1310,	\varcmd 166,	\wlogx
1311, 1312, 1313, 1314,	938, 939, 942, 943, 946,	\WMPL 1599
1315, 1316, 1385, 1387,	947, 950, 951, 954, 955,	\WMSO
1389, 1391, 1393, 1395,	958, 959, 962, 963, 966,	\WMSOL 1541
1397, 1399, 1401, 1403,	967, 970, 971, 974, 975,	\WMTL 1576
1407, 1408, 1409, 1410,	978, 979, 982, 983, 986, 987	\wot
1411, 1412, 1413, 1417,	\varepsilon 1147	\wp
1418, 1419, 1420, 1450,	\varnothing 1023, 1039	\WPL 1587
1451, 1457, 1463, 1464,	\varpi 1287, 1862	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1470, 1476, 1477, 1513,	\varset 1448, 1449	\wrdset 2231, 2232
1515, 1623, 1624, 1625,	\VarSig	\wrdsym 2230, 2232
1653, 1711, 1712, 1713,	\varsig 1445, 1446	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1714, 1715, 1716, 1717,	\varsym 1447, 1449	\wrlset 1642, 1643
1714, 1716, 1716, 1717, 1718, 1719, 1720, 1771,	\vec 931	\wrlsym 1641, 1643, 1644
1772, 1869, 1873, 2179,	\VerSet 1221	\wrpfig@false 116
2180, 2182, 2233, 2255	\verset 1222, 1223	\wrpfig@true 115
	\versym . 1221, 1223, 1224, 1225	\wrt 870
	\vert 990, 998	\WSO 1525
\usrmthgrklow 518	\Viceversa 853	\WSOL 1523
\usrmthgrkupp <u>520</u>	\viceversa 836	\WTL 1564
\usrmthlatlet <u>516</u>	\viz 838	/WIL 1904
\usrmthlatlow $512$	\vs 837	X
\usrmthlatupp $514$ , $1220$ ,	(VB	\X
1265, 1280, 1383, 1427,	$\mathbf{W}$	\XGPL 2008, 2012, 2014, 2017
1446, 1453, 1459, 1466,	\WATL 1779	\XGSL 2159, 2163, 2165, 2168
1472, 1480, 1482, 1484,	\WATLP 1794	\xi 1306, 1428, 1859
1486, 1640, 1827, 2211	\WATLS 1809	\xspace 302, 304
\usrmthlet $\underline{528}$ , $670$ , $672$	\WAutSet 2214	,
\usrmthlow <u>524</u>	\wautset 2214, 2215	$\mathbf{Y}$
\usrmthupp 526	\WCTL 1730	\Y