fmocdmac — FM's OCD LATEX Macro*

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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:
3 \RequirePackage{etoolbox}
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\ \mbox{\%\%} AMS theorem tools
20 \newif\ifamsthm@ \amsthm@true
23 %% Extended Theorem tools
24 \newif\ifthmtls@ \thmtls@true
25 \DeclareOption{nothmtls}{\thmtls@false}
27 %% Enumeration tools
28 \newif\ifenmtls@ \enmtls@true
29 \verb|\DeclareOption{noenmtls}{\cline{conmtls}}| 
31 %% Hyper reference
32 \neq 0 
35 %% Font tools
36 \newif\iffnttls@ \fnttls@true
```

^{*}This document describes version v0.11 of the fmocdmac package, last revised 2023/01/03.

```
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\text@false\com@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\math@false\gam@false\log@false\aut@false}
63
64
65 %% Elementary macros for text
66 \newif\iftext@ \text@false
67 \DeclareOption{text}{\text@true\txtgen@true}
68 \DeclareOption{notext}{\text@false}
70 %% Elementary macros for math
71 \newif\ifmath@ \math@false
72 \DeclareOption{math}{\math@true\mthgen@true}
73 \ensuremath{$\ $\ $} \{\math@false\}
75
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 games
83 \newif\ifgam@ \gam@false
84 \end{true} txtgen@true\mthgen@true\}
85 \DeclareOption{nogam}{\gam@false}
87 %% Macros for logics
88 \newif\iflog@ \log@false
89 \DeclareOption{log}{\log@true\txtgen@true\mthgen@true}
90 \DeclareOption{nolog}{\log@false}
91
92 %% Macros for automata
93 \newif\ifaut@ \aut@false
94 \end{aut} {\aut@true} txtgen@true\mthgen@true}
95 \DeclareOption{noaut}{\aut@false}
96
98 %% Format-related tricks
99 \newif\iffrm@ \frm@false
```

```
100 \DeclareOption{frm}{\frm@true}
101 \DeclareOption{nofrm}{\frm@false}
102
103
104 %% Figure-related tricks
105 \neq \frac{1}{100} \fig@false
106 \DeclareOption{fig}{\fig@true}
107 \DeclareOption{nofig}{\fig@false}
108
109 %% Wrapfig package
110 \newif\ifwrpfig@ \wrpfig@true
111 \DeclareOption{nowrpfig}{\wrpfig@false}
112
113
114 %% Table-related tricks
115 \newif\iftab@ \tab@false
116 \DeclareOption{tab}{\tab@true}
117 \DeclareOption{notab}{\tab@false}
118
119
120 %% Algorithm-related tricks
121 \newif\ifalg@ \alg@false
122 \DeclareOption{alg}{\alg@true}
123 \DeclareOption{noalg}{\alg@false}
124
          Option-processing code:
125
126 \ensuremath{\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{$\mbox{$\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{
128 \ExecuteOptions{aux,txtgen,mthgen,text,math,com,gam,log,aut}%
130 \ProcessOptions\relax%
132 \ \texttt{\formula} \ \texttt{\formu
137 \ifaux@
138
139 \ifamsdef@
140 % AMS Packages
                    \RequirePackage{amsmath}
                    \RequirePackage{amssymb}
                    \RequirePackage{stmaryrd}
                    \interdisplaylinepenalty=2500
144
145\,\backslash\mathrm{fi}
146
147 \ifamsthm@
148 % AMS Theorem Tools
                \RequirePackage{amsthm}
150 \fi
151
152 \left| \text{ifthmtls@} \right|
153 % Extended Theorem Tools
154
                    \RequirePackage{thmtools, thm-restate}
155 \fi
156
157 \ifenmtls@
                    % Enumeration Tools
                    \RequirePackage{paralist}
160 \fi
161
```

```
163
                                                % Hyper References
                                 164
                                                 \RequirePackage{hyperref}
                                 165
                                                \hypersetup
                                 166
                                 167
                                                      pdfsubject
                                                                                                  = {},
                                 168
                                                      pdfkeywords
                                                                                                  = {},
                                 169
                                                      pdfproducer
                                                                                                 = {},
                                 170
                                                      pdfcreator
                                                                                                  = {},
                                 171
                                                      pdfpagemode = {UseNone},
                                 172
                                 173
                                                      pdfstartview = {FitH},
                                                                                                 = {blue},
                                 174
                                                      urlcolor
                                                      colorlinks
                                 175
                                 176
                                 177 \fi
                                 178
                                 179 \iffnttls@
                                                % Font Tools
                                                 \RequirePackage[final]{microtype}
                                 181
                                 182 \fi
                                 183
                                 184 \ifcrv@
                                               % Camera-Ready Version
                                 185
                                 186
                                                %%...
                                 187
                                 188
                                 189 \else
                                               % Draft Version
                                 190
                                 191
                                               %%...
                                 192
                                                \ifchgbar@
                                 194
                                 195
                                                      % Change Bars
                                                      \RequirePackage{changebar}
                                 196
                                                \fi
                                 197
                                 198
                                                \iflinnum@
                                 199
                                                      % Line Numbers
                                 200
                                 201
                                                       \if@twocolumn
                                 202
                                                             \RequirePackage[switch, columnwise, mathlines]{lineno}\linenumbers
                                 203
                                                             \RequirePackage[columnwise, mathlines]{lineno}\linenumbers
                                 204
                                 205
                                                \fi
                                 206
                                 207
                                 208
                                                %%...
                                209
                                210 \fi
                                211
                                 \mathbbo Bbo Math Font: ... to do!
                                 217 \left( \mathbf{Mathbbo}_{l} \right) \\  217 \left( \mathbf{Mathbbo}_{l} \right) \\ 
\matheus Eus Math Font: ... to do!
                                 218 \left\{ \mathbb{T}_{matheus} \right. \\
\mathpzc Pzc Math Font: ... to do!
                                  219 \left\{ \mathbf{T1}_{pzc}_{m}(it) \right\} \\
```

162 \ifhypref@

```
\mathscr Scr Math Font: ... to do!
                                220 \left\{ \mathbf{Wathscr} \right\} \left\{ \mathbf{Mathscr} \right\} 
                                \omicron Auxiliary Greek lowercase letter: ... to do!
                                225 \csdef{omicron}{o}
\Alpha, ... Auxiliary Greek uppercase letters: ... to do!
                                226 \csdef{Alpha}{A} \csdef{Beta}{B} \csdef{Epsilon}{E} \csdef{varEpsilon}{E}
                                227 \texttt{Zeta}{Z} \texttt{Eta}{H} \texttt{Iota}{I} \texttt{Kappa}{K}
                                228 \csdef{varKappa}{K} \csdef{Mu}{M} \csdef{Nu}{N} \csdef{Omicron}{O}
                                229 \csdef{Rho}{P} \csdef{varRho}{P} \csdef{Tau}{T} \csdef{Chi}{X}
                                Emptiness check: \{A\}\{\langle B\}\}\ evaluates to the empty string, if Argument \langle A\rangle is empty,
                              and to Argument \langle B \rangle, otherwise.
                                      • \empchk{}{B} = ""
                                      • \empchk{A}{B} = "B"
                                234 \newcommand{\empchk}[2]
                                          {\left\{ if & 1 \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"
                                236 \newcommand{\defval}[2]
                                           {\left\{ if & 1 & 2 \le 1 \le 1 \right\}}
                                \alpha Left extension: \alpha \alpha 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"
                                239 \newcommand{\arglef}[2]
                                           {\empchk{#2}{#1\allowbreak#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"
                                241 \newcommand{\argrig}[2]
                                          {\empchk{#1}{#1\allowbreak#2}}
         \ Middle extension: \ 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"
                                243 \newcommand{\argmid}[3]
                                         {\empchk{#2}{#1\allowbreak#2\allowbreak#3}}
```

```
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"
                245 \newcommand{\argsep}[3]
                    \label{limits} $$ {\left  \  \  \right } = 1\allowbreak\arglef{#2}{\#3}\fi}
                Variadic commands: \operatorname{Varcmd}\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\}\{\langle D \rangle\}\{\langle E \rangle\}\{\langle F \rangle\} \dots to do!
     \varcmd
                248 \newcommand{\varcmd}[6]
                     {\expandafter\newcommand\csname gobble#1arg\endcsname[2]
                249
                        {\csname check#1arg\endcsname{\argsep{##1}{#4}{##2}}}%
                250
                251
                     \expandafter\newcommand\csname check#larg\endcsname[1]
                252
                       {\csname @ifnextchar\endcsname%
                          \bgroup{\csname gobble#1arg\endcsname{##1}}{#2{##1#5}#6}}%
                253
                     \expandafter\newcommand\csname#1\endcsname[1]
                254
                       {\csname check#1arg\endcsname{#3##1}}}
                \seqoftag Sequence of tags: \seqoftag\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} ... to do!
                257 \newcommand{\seqoftag}[3]
                258
                     {\@for\itr:={#1}\do%
                259
                       {\expandafter\csedef{\itr#2}%
                          {\noexpand\csname #3\endcsname{\itr}}}
                260
               Sequence of commands: \sqoign{A}{\langle A \rangle} {\langle A \rangle} {\langle C \rangle} \dots \text{ to do!}
   \seqofcmd
                261 \newcommand{\seqofcmd}[3]
                262
                     {\@for\itr:={#1}\do%
                263
                       {\expandafter\csedef{\itr#2}%
                264
                          {\noexpand\csname #3\endcsname{\csname \itr\endcsname}}}}
                \seqoflatlow Sequence of Latin lowercase letters: \seqoflatlow{\langle A \rangle}{\langle B \rangle} ... to do!
                266 \newcommand{\seqoflatlow}
                     {\left(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\right)}
\seqoflatupp Sequence of Latin uppercase letters: \seqoflatupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                268 \newcommand{\seqoflatupp}
                     {\left(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\right)}
\seqoflatlet Sequence of Latin letters: \seqoflatlet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                270 \newcommand{\seqoflatlet}[2]
                     {\seqoflatlow{#1}{\#2}\seqoflatupp{#1}{\#2}}
                Sequence of Greek lowercase letters: \seqofgrklow{\langle A \rangle}{\langle B \rangle} ... to do!
\seqofgrklow
                273 \newcommand{\seqofgrklow}
                     {\seqofcmd{alpha,beta,gamma,delta,epsilon,varepsilon,zeta,eta,theta,vartheta,%
                275
                     iota, kappa, varkappa, lambda, mu, nu, xi, omicron, pi, varpi, rho, varrho, sigma, %
                276
                     varsigma,tau,upsilon,phi,varphi,chi,psi,omega}}
              Sequence of Greek uppercase letters: \seqofgrkupp\{\langle A \rangle\}\{\langle B \rangle\}\ ... to do!
\seqofgrkupp
                277 \newcommand{\seqofgrkupp}
                278
                     {\seqofcmd{Alpha,Beta,Gamma,Delta,Epsilon,varEpsilon,Zeta,Eta,Theta,varTheta,%
                279
                     Iota, Kappa, varKappa, Lambda, Mu, Nu, Xi, Omicron, Pi, varPi, Rho, varRho, Sigma, %
                280
                     varSigma,Tau,Upsilon,Phi,varPhi,Chi,Psi,Omega}}
```

```
\seqofgrklet Sequence of Greek letters: \seqofgrklet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   281 \newcommand{\seqofgrklet}[2]
                                             {\seqofgrklow{#1}{#2}\seqofgrkupp{#1}{#2}}
                                   \seqoflow Sequence of lowercase letters: \seqoflow{\langle A \rangle}{\langle B \rangle} ... to do!
                                   284 \newcommand{\seqoflow}[2]
                                            {\seqoflatlow{#1}{#2}\seqofgrklow{#1}{#2}}
        \seqofupp Sequence of uppercase letters: \seqofupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   286 \newcommand{\seqofupp}[2]
                                             {\seqoflatupp{#1}{#2}\seqofgrkupp{#1}{#2}}
        \seqoflet Sequence of all letters: \seqoflet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   288 \newcommand{\seqoflet}[2]
                                             {\seqoflow{#1}{#2}\seqofupp{#1}{#2}}
                                   \newtxt ... to do!
                                        • \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"
                                   294 \newcommandx{\newtxt}[5][1=, 3=, 4=, 5=]
                                              {\text{#1#2\txtsubsup[#1]{#3}{#4}#5}\xspace}
      \newtxtsty ... to do!
                                        • \newtxtsty{\rmfamily}{Name}[sub][sup][Ext] = "Name_sup_Ext"
                                        • \newtxtsty{\rmfamily}[\sffamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                         • \newtxtsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                                   296 \newcommandx{\newtxtsty}[2][2=]
                                             {\newtxt[\defval{#2}{#1}]}
      \newtxtarg ... to do!
                                        • \newtxtarg[\rmfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{\text{sup}}^{\text{sup}}Ext1(Arg)Ext2"
                                        • \newtxtarg[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sup_Ext1(Arg)Ext2"
                                         • \newtxtarg[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sub_Ext1(Arg)Ext2"
                                   298 \newcommandx{\newtxtarg}[7][1=, 3=, 4=, 5=, 7=]
                                              {\newtxt[#1]{#2}[#3][#4][#5\argmid{(}{#6}{)}#7]}
\newtxtargsty ... to do!
                                         \bullet \mathtt{Name}^{\sup}_{\sup} [\mathtt{Ext1}] \{\mathtt{Arg}\} [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ext1}] \{\mathtt{Arg}\} [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ext1}] (\mathtt{Arg}) [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ex
                                        • \newtxtargsty{\rmfamily}[\sffamily][\sup][\sup][\sup][\sup][\st1]{\Arg}[\st2] = "Name_sup_\sup \st1(\Arg)\st2"
                                         • \newtxtargsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Namesup Ext1(Arg)Ext2"
                                   300 \newcommandx{\newtxtargsty}[2][2=]
                                            {\newtxtarg[\defval{#2}{#1}]}
    \newtxtoarg ... to do!
                                        • \newtxtoarg[\rmfamily]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                         • \newtxtoarg[\sffamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                         • \newtxtoarg[\ttfamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                   302 \newcommandx{\newtxtoarg}[5][1=, 3=, 4=, 5=]
                                            {\newtxtarg[#1]{#2}[#3][#4][]{#5}[]}
```

```
\newtxtoargsty ... to do!
                                     • \mbox{\normalize} \{\mbox{\normalize}, \mbox{\normalize} \} \ [sub] [sup] [Arg] = "Name_{
m sub}^{
m sup} (\mbox{\normalize}, \mbox{\normalize})"
                                      \bullet \verb| \newtxtoargsty{\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}] [\mbox{\newtxt
                                304 \newcommandx{\newtxtoargsty}[2][2=]
                                305 {\newtxtoarg[\defval{#2}{#1}]}
       \newtxtpar ... to do!
                                     • \newtxtpar[\rmfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sup_Ext1[Par]Ext2"
                                     • \newtxtpar[\sffamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sup}Ext1[Par]Ext2"
                                     • \newtxtpar[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sub_Ext1[Par]Ext2"
                                306 \newcommandx{\newtxtpar}[7][1=, 3=, 4=, 5=, 7=]
                                        {\newtxt[#1]{#2}[#3][#4][#5\argmid{[}{#6}{]}#7]}
 \newtxtparsty ... to do!
                                     • \newtxtparsty{\rmfamily}{Name}[sub] [sup] [Ext1] {Par} [Ext2] = "Name_{sub}^{sup}Ext1[Par]Ext2"
                                     • \newtxtparsty{\rmfamily}[\sffamily]{\Name}[sub][sup][Ext1]{\Par}[Ext2] = "Name_sub_Ext1[\Par]Ext2"
                                     • \newtxtparsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "NamesubExt1[Par]Ext2"
                                308 \newcommandx{\newtxtparsty}[2][2=]
                                309 {\newtxtpar[\defval{#2}{#1}]}
     \newtxtopar ... to do!
                                     • \newtxtopar[\rmfamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                     • \newtxtopar[\sffamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                     • \newtxtopar[\ttfamily]{Name}[sub][sup][Par] = "Name_sub_Par]"
                                310 \newcommandx{\newtxtopar}[5][1=, 3=, 4=, 5=]
                                       {\newtxtpar[#1]{#2}[#3][#4][]{#5}[]}
\newtxtoparsty ... to do!
                                     • \mbox{\ensuremath{\mbox{Name}} (Sub) [Sup] [Par] = "Name}_{sub} [Par]"}
                                     \newtxtoparsty{\rmfamily}[\sffamily] {\Name} [sub] [sup] [Par] = "Name_sup[Par]"
                                     • \newtxtoparsty{\rmfamily}[\ttfamily]{\Name}[sub][sup][Par] = "Name_sup_[Par]"
                                312 \newcommandx{\newtxtoparsty}[2][2=]
                                        {\newtxtopar[\defval{#2}{#1}]}
       \txtsubsup ... to do!
                                     • \txtsubsup{sub}{} = "sub"; \txtsubsup{}{sup} = "sup"; \txtsubsup{sub}{sup} = "sub"
                                     • \txtsubsup[\sffamily]{Aa}{Bb} = "Bb" Aa
                                     • \txtsubsup[\ttfamily]{Aa}{Bb} = ^{\text{"Bb"}}_{Aa}
                                314 \newcommand{\txtsubsup}[3][]
                                         {\ensuremath{\empchk{#2}{_{\text{#1#2}}}\empchk{#3}{^{\text{#1#3}}}}}
                                \txt ... to do!
                                     • \text{txt{Name}}[\text{sub}][\text{sup}][\text{Ext}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext"}
                                     • \txt[\schape]{Name}[sub][sup][Ext] = "NAME_{SUB}^{SUP}EXT"
                                     • \text{txt}[\text{bfseries}]{\text{Name}}[\text{sub}][\text{sup}][\text{Ext}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext}"
                                317 \newcommand{\txt}
                                        {\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}"
                                     • \txtarg[\scshape]{Name}[sub] [sup] [Ext1] {Arg}[Ext2] = "NAME_SUB_EXT1(ARG)EXT2"
```

```
• \txtarg[\bfseries]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2"
               319 \newcommand{\txtarg}
               320 {\newtxtargsty{\txtsty}}
   \txtoarg ... to do!
                  • \txtoarg{Name}[sub][sup][Arg] = "Name<sup>sup</sup><sub>sub</sub>(Arg)"
                  • \txtoarg[\scshape]{Name}[sub][sup][Arg] = "NAME_SUB(ARG)"
                  • \t \ [sub] [sup] [Arg] = "Name \ [sub]" [Arg] = "Name \ [sub]"
               321 \newcommand{\txtoarg}
               322 {\newtxtoargsty{\txtsty}}
    \txtpar ... to do!
                  • \text{txtpar{Name}[sub][sup][Ext1]{Par}[Ext2]} = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[Par]\text{Ext2"}
                  • \txtpar[\scshape]{Name}[sub][sup][Ext1]{Par}[Ext2] = "NAME_{SUB}^{SUP}EXT1[PAR]EXT2"
                  • \txtpar[\bfseries] {Name} [sub] [sub] [Ext1] {Par} [Ext2] = "Name sub Ext1[Par] Ext2"
               323 \newcommand{\txtpar}
               324 {\newtxtparsty{\txtsty}}
   \txtopar ... to do!
                  • \text{txtopar{Name}[sub][sup][Par]} = \text{"Name}_{\text{sub}}^{\text{sup}}[Par]"
                  • \txtopar[\schape]{Name}[sub][sup][Par] = "NAME_{SUB}^{SUP}[PAR]"
                  • \t \ [Sub] [Sup] [Par] = "Name \ [Par]"
               325 \newcommand{\txtopar}
                    {\newtxtoparsty{\txtsty}}
    \txtsty ... to do!
               327 \newcommand{\txtsty}
                    {\mdseries\upshape\rmfamily}
               \cmdtxt ... to do!
                  • \cmdtxt{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \mathsf{Name}[\mathsf{sub}][\mathsf{sup}][\mathsf{Ext}] = \mathsf{Name}^{\mathsf{SUP}}_{\mathsf{SUB}}[\mathsf{Ext}]
               330 \newcommand{\cmdtxt}[1]
                    {\csdef{txt#1}{\newtxtsty{\csname txtsty#1\endcsname}}}
 \cmdtxtarg ... to do!
                  • \cmdtxtarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \texttt{\txtargNewCmd}\{\texttt{Name}\}[\texttt{sub}][\texttt{sup}][\texttt{Ext1}]\{\texttt{Arg}\}[\texttt{Ext2}] = \texttt{Name}^{\texttt{SUP}}_{\texttt{SUB}}\texttt{Ext1}(\texttt{Arg})\texttt{Ext2}
               332 \newcommand{\cmdtxtarg}[1]
               333 {\csdef{txtarg#1}{\newtxtargsty{\csname txtsty#1\endcsname}}}
\cmdtxtoarg ... to do!
                  • \cmdtxtoarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \t Name [sub] [sup] [Arg] = Name_{SUB} (Arg)
               334 \newcommand{\cmdtxtoarg}[1]
                    {\csdef{txtoarg#1}{\newtxtoargsty{\csname txtsty#1\endcsname}}}
 \cmdtxtpar ... to do!
                  • \cmdtxtpar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \txtparNewCmd{Name}[sub][sup][Ext1]{Par}[Ext2] = NAME_SUB_EXT1[PAR]EXT2
               336 \newcommand{\cmdtxtpar}[1]
                    {\csdef{txtpar#1}{\newtxtparsty{\csname txtsty#1\endcsname}}}
\cmdtxtopar ... to do!
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\cmdtxtopar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                                  \verb|\txtoparNewCmd{Name}[sub][sup][Par] = \verb|\txtoparNewCmd{Name}[Par]|
                                        338 \newcommand{\cmdtxtopar}[1]
                                                  {\csdef{txtopar#1}{\newtxtoparsty{\csname txtsty#1\endcsname}}}
       \cmdtxtall ... to do!
                                              • \cmdtxtall{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                                  \verb|\txtNewCmd{Name}[sub][sup][Ext] = \verb|\NAME|_{SUB}^{SUP}Ext|
                                                   \txtargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAME_SUB_EXT1(ARG)EXT2
                                                  \verb|\txtoargNewCmd{Name}[sub][sup][Arg] = \verb|\Name|^{SUP}(Arg)
                                                   \texttt{\txtparNewCmd}\{\texttt{Name}\}[\texttt{sub}][\texttt{sup}][\texttt{Ext1}]\{\texttt{Par}\}[\texttt{Ext2}] = \texttt{Name}^{\texttt{SUP}}_{\texttt{SUB}}\texttt{Ext1}[\texttt{Par}]\texttt{Ext2}
                                                  \t \ [sub] [sup] [Par] = NAME_{SUB}^{SUP} [PAR]
                                        340 \newcommand{\cmdtxtall}[1]
                                        341 {\cmdtxt{#1}\cmdtxtarg{#1}\cmdtxtoarg{#1}\cmdtxtpar{#1}\cmdtxtopar{#1}}
               \usrtxt ... to do!
                                              • \usrtxt{cmdName}{Suf}{}; \cmdNameSuf = cmdName
                                                   \t CmdName {Suf}{arg}; \c MameSuf{Arg} = cmdName(Arg)
                                                   \t \operatorname{CmdName} \{Suf\} \{par\}; \operatorname{CmdNameSuf} \{Par\} = \operatorname{cmdName} [Par] 
                                              • \usrtxt{cmdName}{Suf}{}[newName]; \cmdNameSuf = newName
                                                   \usrtxt{cmdName}{Suf}{arg}[newName]; \cmdNameSuf{Arg} = newName(Arg)
                                                   \t {cmdName} {Suf} {par} [newName]; \t {Par} = newName [Par]
                                        343 \newcommandx{\usrtxt}[4][4=]
                                                  {\csdef{#1#2}{\csname txt#3\endcsname{\defval{#4}{#1}}}}
                                        \newmth ... to do!
                                              • \newmth[mathrm]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                              • \newmth[mathsf]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                              • \newmth[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                                        349 \newcommandx{\newmth}[5][1=, 3=, 4=, 5=]
                                                  {\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"
                                        351 \newcommandx{\newmthsty}[2][2=]
                                        352 \{ \left( \frac{\#2}{\#1} \right) \}
       \newmtharg ... to do!
                                              • \newmtharg[mathrm] {Name} [sub] [sup] [Ext1] {Arg} [Ext2] = "Name_{sub}^{sup} Ext1(Arg)Ext2"
                                              • \newmtharg[mathsf]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2"
                                               \bullet \verb| \newmtharg[mathtt] {Name}[sub][sup][Ext1] {Arg}[Ext2] = "Name|_{sub}^{sup} Ext1(Arg) Ext2" \\
                                        353 \newcommandx{\newmtharg}[7][1=, 3=, 4=, 5=, 7=]
                                                  {\newmth[#1]{#2}[#3][#4][#5\argmid{\!\left(}{#6}{\right)\arglef{\!}{#7}}]}
\newmthargsty ... to do!
                                              • \newmthargsty{mathrm}{Name} [sub] [sup] [Ext1] {Arg} [Ext2] = "Name_{sub}^{sup} Ext1(Arg) Ext2"
                                               \bullet \verb| \newmthargsty{mathrm}[mathsf]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2" | \normalised for the subset of the s
                                               \bullet \verb| \newmthargsty{mathrm}[mathtt]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name $^{sup}_{sub}Ext1(Arg)Ext2" | The substitution of the substitution
```

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355 \newcommandx{\newmthargsty}[2][2=]
                                                                                   {\newmtharg[\defval{#2}{#1}]}
            \newmthoarg ... to do!
                                                                            • \newmthoarg[mathrm] {Name} [sub] [sup] [Arg] = "Name _{sub}^{sup}(Arg)"
                                                                             • \newmthoarg[mathsf]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                             • \newmthoarg[mathtt]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                   357 \newcommandx{\newmthoarg}[5][1=, 3=, 4=, 5=]
                                                                                       {\newmtharg[#1]{#2}[#3][#4][]{#5}[]}
\newmthoargsty ... to do!
                                                                            • \newmthoargsty{mathrm}{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                            • \newmthoargsty{mathrm} [mathsf] {Name} [sub] [sup] [Arg] = "Name_{sub}^{sup}(Arg)"
                                                                              \qquad \qquad \texttt{(Name) [sub] [sup] [Arg]} = \texttt{(Name)}^{sup} (Arg) \texttt{(Arg)} \texttt{(Arg)} \texttt{(Arg)} \texttt{(Name)}^{sup} (Arg) \texttt{(Arg)} \texttt{(
                                                                   359 \newcommandx{\newmthoargsty}[2][2=]
                                                                                       {\newmthoarg[\defval{#2}{#1}]}
               \newmthpar ... to do!
                                                                            • \newmthpar[mathrm] {Name} [sub] [sup] [Ext1] {Par} [Ext2] = "Name _{sub}^{sup} Ext1[Par]Ext2"
                                                                            \bullet \ \texttt{\ \ } [\texttt{Ext1}] \ \texttt{\ \ } [\texttt{Ext2}] = "\texttt{Name}^{sup}_{sub} Ext1[Par] Ext2"
                                                                              \bullet \ \texttt{\  Name} \ \texttt{\  Ext1} \ \texttt{\  (Par)} \ \texttt{\  Ext2} \ = \ \texttt{\  \  } \ \texttt{\  Ext1} \ \texttt{\  } \ \texttt{\ 
                                                                   361 \newcommandx{\newmthpar}[7][1=, 3=, 4=, 5=, 7=]
                                                                                      {\newmth[#1]{#2}[#3][#4][#5\argmid{\!\left[}{#6}{\right]\arglef{\!}{#7}}]}
   \newmthparsty ... to do!
                                                                             \bullet \verb| \newmthparsty{mathrm}{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_{sub}^{sup}Ext1[Par]Ext2" 
                                                                             • \newmthparsty{mathrm} [mathsf] {Name} [sub] [sup] [Ext1] {Par} [Ext2] = "Name _{sub}^{sup} Ext1[Par] Ext2"
                                                                              \bullet \texttt{ \  \  } \texttt{ [Ext1] \{Par\}[Ext2]} = \texttt{``Name} \texttt{ \  } \texttt{ Ext1[Par]Ext2''} 
                                                                   363 \newcommandx{\newmthparsty}[2][2=]
                                                                                    {\newmthpar[\defval{#2}{#1}]}
            \newmthopar ... to do!
                                                                             \bullet \verb| \newmthopar[mathrm]{Name}[sub][sup][Par] = "Name_{sub}^{sup}[Par]" 
                                                                              \qquad \qquad \texttt{`Name}^{sup}_{sub} \texttt{[Sub] [Sup] [Par]} = \texttt{``Name}^{sup}_{sub} [Par]" \\
                                                                             • \newmthopar[mathtt] {Name} [sub] [sup] [Par] = "Name_{sub}^{sup}[Par]"
                                                                  365 \newcommandx{\newmthopar}[5][1=, 3=, 4=, 5=]
                                                                                      {\newmthpar[#1]{#2}[#3][#4][]{#5}[]}
\newmthoparsty ... to do!
                                                                             \bullet \texttt{\ \ } [sub] [sup] [Par] = "Name_{sub}^{sup} [Par]" 
                                                                            • \newmthoparsty{mathrm} [mathsf] {Name} [sub] [sup] [Par] = "Name_{sub}^{sup}[Par]"
                                                                             • \newmthoparsty{mathrm} [mathtt] {Name} [sub] [sup] [Par] = "Name _{sub}^{sup} [Par]"
                                                                  367 \newcommandx{\newmthoparsty}[2][2=]
                                                                                   {\mathbb{L}}{\mathbb{L}}
               \mthsubsup ... to do!
                                                                  369 \newcommand{\mthsubsup}[2]
                                                                  370 {\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
```

```
372 \newcommand{\mth}
                                                                                                                          {\newmthsty{\mthsty}}
                          \mtharg ... to do!
                                                                                                               \bullet \  \  \, \texttt{\bar{Name}} \  \, \texttt{\bar{Ext1}} \  \, \texttt{\bar{Ext2}} \  \, = \  \, "Name_{sub}^{sup} Ext1 (Arg) Ext2"
                                                                                                               • \mbox{\mbox{\tt mtharg[mathbf]} {\tt Name} [sub] [sup] [Ext1] {\tt Arg} [Ext2] = "Name_{sub}^{sup} Ext1(Arg) Ext2"}
                                                                                                                • \mtharg[mathtt]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name _{sub}^{sup}Ext1(Arg)Ext2"
                                                                                              374 \newcommand{\mtharg}
                                                                                                                           {\newmthargsty{\mthsty}}
                    \mthoarg ... to do!
                                                                                                               • \mthoarg{Name}[sub][sup] [Arg] = "Name_{sub}^{sup}(Arg)"
                                                                                                               • \mthoarg[mathbf] {Name} [sub] [sup] [Arg] = "Name_{sub}^{sup}(Arg)"
                                                                                                                \bullet \ \texttt{\t Name} \ \texttt{\t [sub] [sup] [Arg]} = \texttt{\t "Name} \ \texttt{\t sub} \ \texttt{\t [sup] [Arg]} = \texttt{\t "Name} \ \texttt{\t sub} \ \texttt{\t [sup] [Arg]} 
                                                                                              376 \newcommand{\mthoarg}
                                                                                                                                  {\newmthoargsty{\mthsty}}
                          \mthpar ... to do!
                                                                                                               \bullet \  \  \, \texttt{\bare}[\mathtt{Sub}] \  \, \texttt{\bare}[\mathtt{Ext1}] \  \, \texttt{\bare}[\mathtt{Ext2}] \  \, = \  \, "Name^{sup}_{sub} Ext1[Par] Ext2"
                                                                                                               \bullet \  \, \texttt{\bare}[mathbf] \  \, \texttt{\bare}[sub] \  \, \texttt{\bare}[Ext1] \  \, \texttt{\bare}[Ext2] \  \, = \  \, \texttt{\bare}[sub] \  \, \texttt{\bare}[Ext1] \  \, \texttt{\bare}[Ext2] \  \, = \  \, \texttt{\bare}[sub] \  \, \texttt{
                                                                                                               \bullet \  \, \texttt{\bare}[\texttt{mathtt}] \, \{\texttt{Name}\} \, [\texttt{sub}] \, [\texttt{sup}] \, [\texttt{Ext1}] \, \{\texttt{Par}\} \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 [Par] Ext2 \, \text{'`Par} \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext1 \, [Par] \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} \, \frac{\sup}{\sup} Ext2 \, [\texttt{Ext2}] \, = \, \text{``Name} 
                                                                                               378 \newcommand{\mthpar}
                                                                                                                           {\newmthparsty{\mthsty}}
                    \mthopar ... to do!
                                                                                                               • \mthopar[mathbf]{Name}[sub][sup][Par] = "Name_{sub}^{sup}[Par]"
                                                                                                                • \mthopar[mathtt] {Name} [sub] [sup] [Par] = "Name _{sub}^{sup}[Par]"
                                                                                              380 \newcommand{\mthopar}
                                                                                                                            {\newmthoparsty{\mthsty}}
                           \mthsty ... to do!
                                                                                             382 \newcommand{\mthsty}
                                                                                             383 {}
                                                                                              \cmdmth ... to do!
                                                                                                               \bullet \ \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{$\mbox{$\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{$\mb
                                                                                                                           \verb|\mthNewCmd{Name}[sub][sup][Ext] = \verb|\mame| sub| Ext|
                                                                                               385 \newcommand{\cmdmth}[1]
                                                                                                                         {\csdef{mth#1}{\newmthsty{mthsty#1}}}
      \cmdmtharg ... to do!
                                                                                                                • \cmdmtharg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                            \verb|\mathresize | \texttt{Sub} [\texttt{sub}] [\texttt{sup}] [\texttt{Ext1}] \{\texttt{Arg}\} [\texttt{Ext2}] = \texttt{Name}_{sub}^{sup} Ext1(Arg) Ext2
                                                                                               387 \newcommand{\cmdmtharg}[1]
                                                                                                                       {\csdef{mtharg#1}{\newmthargsty{mthsty#1}}}
                                                                                             388
\cmdmthoarg ... to do!
                                                                                                                • \cmdmthoarg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                           \verb|\mbox| \verb| [sub] [sup] [Arg] = \verb|\mbox| \verb| [sup] [Arg] = \verb|\mbox| \verb| [sup] [Arg] = \verb|\mbox| \verb| [sub] [sub] [sup] [arg] = \verb|\mbox| \verb| [sub] [sub] [sub] [sub] [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] [sub] [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] [sub] [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] [sub] [sub] = \verb|\mbox| \verb| [sub] = \verb|\mbox| = \verb|\m
                                                                                              389 \newcommand{\cmdmthoarg}[1]
                                                                                                                         {\csdef{mthoarg#1}{\newmthoargsty{mthsty#1}}}
      \cmdmthpar ... to do!
```

```
\cmdmthpar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                 \mathbb{E}[\operatorname{Ext2}] = \operatorname{Name}_{sub}^{sup} Ext1 
                          391 \newcommand{\cmdmthpar}[1]
                                  {\csdef{mthpar#1}{\newmthparsty{mthsty#1}}}
   \cmdmthopar
                        ... to do!
                               • \cmdmthopar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                 \mbox{\continuous} [sub] [sup] [Par] = \mbox{\continuous} [Par]
                          393 \newcommand{\cmdmthopar}[1]
                                 {\csdef{mthopar#1}{\newmthoparsty{mthsty#1}}}
     \cmdmthall ... to do!
                               • \cmdmthall{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                  \verb|\mathNewCmd{Name}[sub][sup][Ext]| = \verb|\mathNewCmd{Name}| Ext|
                                  \verb|\mbox| \verb| Sub| [sup] [Arg] = \verb|\mbox| mame|_{sub}^{sup} (Arg)
                                  \verb|\mbox| | [sub] [sup] [Par] = \verb|\mbox| | [Par] = \verb|\mbox| | [Par] |
                          395 \newcommand{\cmdmthall}[1]
                                 {\cmdmth{#1}\cmdmtharg{#1}\cmdmthoarg{#1}\cmdmthpar{#1}\cmdmthopar{#1}}
                          \usrmth ... to do!
                               • \sl = cmdName 
                                 \verb|\usrmth{cmdName}{Suf}{par}[newName]; \verb|\cmdNameSuf}{Par} = newName[Par]
                          398 \newcommandx{\usrmth}[4][4=]
                                  {\csdef{#1#2}{\csname mth#3\endcsname{\defval{#4}{#1}}}}
                          \usrmthlatlow ... to do!
                          401 \newcommandx{\usrmthlatlow}[4][4=]
                                 {\usrmth{#1}{#2}{#3}[#4]\seqoflatlow{#1#2}{mth#3}}
\usrmthlatupp ... to do!
                          403 \verb|\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcomman
                                 {\usrmth{#1}{#2}{#3}[#4]\seqoflatupp{#1#2}{mth#3}}
\usrmthlatlet ... to do!
                          405 \newcommandx{\usrmthlatlet}[4][4=]
                                 {\usrmth{#1}{#2}{#3}[#4]\seqoflatlet{#1#2}{mth#3}}
\usrmthgrklow ... to do!
                          407 \newcommandx{\usrmthgrklow}[4][4=]
                                  {\usrmth{#1}{#2}{#3}[#4]\seqofgrklow{#1#2}{mth#3}}
\usrmthgrkupp ... to do!
                          409 \newcommandx{\usrmthgrkupp}[4][4=]
                                  {\usrmth{#1}{#2}{#3}[#4]\seqofgrkupp{#1#2}{mth#3}}
\usrmthgrklet ... to do!
                          411 \newcommandx{\usrmthgrklet}[4][4=]
                                  {\usrmth{#1}{#2}{#3}[#4]\seqofgrklet{#1#2}{mth#3}}
     \usrmthlow ... to do!
                          413 \newcommandx{\usrmthlow}[4][4=]
                                 {\usrmth{#1}{#2}{#3}[#4]\seqoflow{#1#2}{mth#3}}
```

```
\usrmthupp ... to do!
                               415 \newcommandx{\usrmthupp}[4][4=]
                               416 {\usrmth{#1}{#2}{#3}[#4]\seqofupp{#1#2}{mth#3}}
       \usrmthlet ... to do!
                               417 \newcommandx{\usrmthlet}[4][4=]
                               418 {\usrmth{#1}{#2}{#3}[#4]\seqoflet{#1#2}{mth#3}}
                                423 \iftxtgen@
   \txtdef, ... to do!
                                    ullet \txtdef{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                     \qquad \qquad \bullet \  \  \, \texttt{`txtargdef\{Name\}[sub][sup][Ext1]\{Arg\}[Ext2]} = Name_{sub}^{sup}Ext1(Arg)Ext2 
                                     ullet \txtpardef{Name}[sub][sup][Ext1]{Par}[Ext2] = Name_{ext}^{sup}Ext1/Par]Ext2
                                424 %% Style for Definitions
                               425 \verb|\def|\newcommand{\txtstydef}{\normalfont\bfseries\em}|
       \cmdtxtdef ... to do!
                                    • \cmdtxtdef{cmdName};
                                        \verb|\cmdName[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                                     • \cmdtxtdef{cmdName}[newName];
                                        \colon = newName[sub][sub][ext] = newName^{sub}_{sub}ext
                                426 \newcommandx{\cmdtxtdef}[2][2=]
                                       {\usrtxt{#1}{}{def}[#2]}
 \cmdtxtargdef ... 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
                                428 \newcommandx{\cmdtxtargdef}[2][2=]
                               429 {\usrtxt{#1}{}{argdef}[#2]}
\cmdtxtoargdef ... to do!
                                    \cmdtxtoargdef{cmdName};
                                        \colon colon col
                                    • \cmdtxtoargdef{cmdName}[newName];
                                        \colon = newName[sub][sub][arg] = newName^{sub}_{sub}(arg)
                                430 \newcommandx{\cmdtxtoargdef}[2][2=]
                                431 {\usrtxt{#1}{}{oargdef}[#2]}
 \cmdtxtpardef ... to do!
                                    • \cmdtxtpardef{cmdName};
                                        \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
                                432 \newcommandx{\cmdtxtpardef}[2][2=]
                               433 {\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|
```

```
434 \newcommandx{\cmdtxtopardef}[2][2=]
                    435 {\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_{\text{sub}}^{\text{sup}} Ext1(Arg) Ext2
                        • \txtparabr{Name} [sub] [sup] [Ext1] {Par} [Ext2] = Name_{\mathrm{sub}}^{\mathrm{sup}} Ext1[Par]Ext2
                    436 %% Style for Abbreviations
                    437 \cmdtxtall{abr}\newcommand{\txtstyabr}{\em}
    \cmdtxtabr ... to do!
                       \cmdtxtabr{cmdName};
                          \verb|\cmdName[sub][sub][ext]| = cmdName_{\rm sub}^{\rm sub}ext
                        • \cmdtxtabr{cmdName}[newName];
                          \colon dName[sub][sub][ext] = newName_{sub}^{sub}ext
                    438 \verb|\newcommandx{\cmdtxtabr}[2][2=]
                         {\usrtxt{#1}{}{abr}[#2]}
 \cmdtxtargabr ... to do!
                       • \cmdtxtargabr{cmdName};
                          \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = cmdName^{\text{sub}}_{\text{sub}}ext1(arg)ext2
                        • \cmdtxtargabr{cmdName}[newName];
                          \cmdName[sub][sub][ext1]{arg}[ext2] = newName_{sub}^{sub}ext1(arg)ext2
                    440 \newcommandx{\cmdtxtargabr}[2][2=]
                    441 {\usrtxt{#1}{}{argabr}[#2]}
\cmdtxtoargabr ... to do!
                       • \cmdtxtoargabr{cmdName};
                          \cmdName[sub][sub][arg] = cmdName_{sub}^{sub}(arq)
                        • \cmdtxtoargabr{cmdName}[newName];
                          \colon = newName[sub][sub][arg] = newName[sub](arg)
                    442 \newcommandx{\cmdtxtoargabr}[2][2=]
                    443 {\usrtxt{#1}{}{oargabr}[#2]}
 \cmdtxtparabr ... to do!
                       • \cmdtxtparabr{cmdName};
                          \cmdName[sub][sub][ext1][par][ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                        • \cmdtxtparabr{cmdName} [newName];
                          \verb|\cmdName[sub][sub][ext1]{par}[ext2] = newName_{sub}^{sub}ext1[par]ext2|
                    444 \newcommandx{\cmdtxtparabr}[2][2=]
                         {\usrtxt{#1}{}{parabr}[#2]}
\cmdtxtoparabr ... to do!
                       • \cmdtxtoparabr{cmdName};
                          \cmdName[sub] [sub] [par] = cmdName_{\text{sub}}^{\text{sub}}/par
                        • \cmdtxtoparabr{cmdName}[newName];
                          \cmdName[sub][sub][par] = newName_{sub}^{sub}/par]
                    446 \newcommandx{\cmdtxtoparabr}[2][2=]
                         {\usrtxt{#1}{}{oparabr}[#2]}
                    \txtname, ... to do!
                       • \text{txtname}\{\text{Name}\}[\text{sub}][\text{Sup}][\text{Ext}] = \text{Name}_{\text{Sup}}^{\text{SUP}}\text{Ext}
                        • \text{txtargname}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]\{\text{Arg}\}[\text{Ext2}] = \text{Name}_{\text{SUB}}^{\text{SUP}}\text{Ext1}(\text{Arg})\text{Ext2}
                        • \text{txtparname}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{SUB}}^{\text{SUP}}\text{Ext1}[\text{Par}]\text{Ext2}
```

```
449 %% Style for Names
                                                            450 \cmdtxtall{name}\newcommand{\txtstyname}{\normalfont\mdseries\scshape\sffamily}
              \cmdtxtname ... to do!
                                                                     \cmdtxtname{cmdName};
                                                                          \cmdName[sub][sub][ext] = CMDNAME_{SUB}^{SUB}EXT
                                                                     • \cmdtxtname{cmdName}[newName];
                                                                          \c Mame[sub][sub][ext] = NEWNAME_{SUB}^{SUB}EXT
                                                            451 \newcommandx{\cmdtxtname}[2][2=]
                                                            452 {\usrtxt{#1}{}{name}[#2]}
   \cmdtxtargname ... to do!
                                                                    • \cmdtxtargname{cmdName};
                                                                          \label{lem:cmdName} $$ \operatorname{[sub][sub][ext1]}_{arg}[ext2] = \operatorname{CMDNAME}_{SUB}^{SUB} \operatorname{EXT1}(\operatorname{ARG}) \operatorname{EXT2} $$
                                                                    • \cmdtxtargname{cmdName}[newName];
                                                                           \cmdName[sub][sub][ext1]{arg}[ext2] = NEWNAME_{SUB}^{SUB}EXT1(ARG)EXT2
                                                             453 \newcommandx{\cmdtxtargname}[2][2=]
                                                            454 {\usrtxt{#1}{}{argname}[#2]}
\cmdtxtoargname ... to do!
                                                                     \cmdtxtoargname{cmdName};
                                                                           \cmbox{\cmbox{cmdName}[sub][sub][arg]} = \ccmbox{\cmbox{\cmbox{CMDNAME}}}_{SUB}(\ccmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cmbox{\cm
                                                                    • \cmdtxtoargname{cmdName}[newName];
                                                                          \colon = NEWNAME_{SUB}^{SUB}(ARG)
                                                            455 \newcommandx{\cmdtxtoargname}[2][2=]
                                                                          {\usrtxt{#1}{}{oargname}[#2]}
   \cmdtxtparname ... to do!
                                                                     \cmdtxtparname{cmdName};
                                                                          \verb|\cmdName[sub][sub][ext1]{par}[ext2] = \verb|\cmdName[sub]| = \verb|\cmdNam
                                                                    • \cmdtxtparname{cmdName}[newName];
                                                                           457 \newcommandx{\cmdtxtparname}[2][2=]
                                                                          {\usrtxt{#1}{}{parname}[#2]}
\cmdtxtoparname ... to do!
                                                                     \cmdtxtoparname{cmdName};
                                                                          \verb|\cmdName[sub][par]| = CMDNAME_{SUB}^{SUB}[PAR]|
                                                                     \cmdtxtoparname{cmdName}[newName];
                                                                          \verb|\cmdName[sub][sub][par]| = NEWNAME_{SUB}^{SUB}[PAR]|
                                                            459 \newcommandx{\cmdtxtoparname}[2][2=]
                                                            460 {\usrtxt{#1}{}{oparname}[#2]}
          \txtcom, ... to do!
                                                                    • \text{txtcom{Name}[sub][sup][Ext]} = \text{Name}_{\text{SUB}}^{\text{SUP}} \text{Ext}
                                                                    • \t xtargcom{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAME_{SUB}^{SUP}EXT1(ARG)EXT2
                                                                     \bullet \ \texttt{\txtparcom{Name}[sub][sup][Ext1]{Par}[Ext2]} = NAME^{SUP}_{SUB}EXT1[PAR]EXT2
                                                            461 %% Style for Complexities
                                                            462 \cmdtxtall{com}\newcommand{\txtstycom}{\normalfont\mdseries\scshape\rmfamily}
                 \cmdtxtcom ... to do!
                                                                    • \cmdtxtcom{cmdName};
                                                                          \verb|\cmdName[sub][sub][ext]| = \texttt{CMDNAME}^{\texttt{SUB}}_{\texttt{SUB}} \texttt{EXT}
                                                                     • \cmdtxtcom{cmdName} [newName];
                                                                          463 \newcommandx{\cmdtxtcom}[2][2=]
                                                             464 {\usrtxt{#1}{}{com}[#2]}
```

```
\cmdtxtargcom ... to do!
                       • \cmdtxtargcom{cmdName};
                         \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = CMDNAME_{SUB}^{SUB}EXT1(ARG)EXT2
                       • \cmdtxtargcom{cmdName}[newName];
                         465 \newcommandx{\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)
                    467 \newcommandx{\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];
                         \label{lem:lemma:equation:lemma:equation:ext1} $$ \operatorname{cmdName}[\operatorname{sub}][\operatorname{sub}][\operatorname{ext1}][\operatorname{par}][\operatorname{ext2}] = \operatorname{NEWNAME}_{\operatorname{SUB}}^{\operatorname{SUB}} \operatorname{EXT1}[\operatorname{PAR}] \operatorname{EXT2} $$
                    469 \verb|\newcommandx{\cmdtxtparcom}[2][2=]
                        {\usrtxt{#1}{}{parcom}[#2]}
\cmdtxtoparcom ... to do!
                       • \cmdtxtoparcom{cmdName};
                         \label{eq:cmdName} $$ \operatorname{CMDNAME}_{SUB}^{SUB}[PAR] = \operatorname{CMDNAME}_{SUB}^{SUB}[PAR] $$
                       \cmdtxtoparcom{cmdName}[newName];
                         \verb|\cmdName[sub][sub][par]| = NEWNAME_{SUB}^{SUB}[PAR]|
                    471 \newcommandx{\cmdtxtoparcom}[2][2=]
                        {\usrtxt{#1}{}{oparcom}[#2]}
                    473 \fi
                   478 \ifmthgen@
 \mthname, ... to do!
                       ullet \mthname{NAME}[sub] [sup] [Ext] = \mathcal{NAME}^{sup}_{sub}Ext
                       \bullet \  \, \texttt{\bar{NAME}[sub][sup][Ext1]\{Arg\}[Ext2]} = \mathcal{NAME}^{sup}_{sub}Ext1(Arg)Ext2
                       • \mthparname{NAME}[sub][sup][Ext1]{Par}[Ext2] = \mathcal{NAME}_{sub}^{sup}Ext1[Par]Ext2
                   479 %% Style for Names
                   480 \mbox{ } \mbox{mthall{name}\newcommand{\mbox{mthstyname}{\mbox{mathcal}}}
   \AName, ... to do!
                   \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}
                   481 \seqoflatupp{Name}{mthname}
   \cmdmthname ... to do!
                       • \cmdmthname{CMDNAME};
                         \CMDNAMEName[sub][sub][ext] = \mathcal{CMDNAME}_{sub}^{sub}ext
                       • \cmdmthname{cmdName}[NEWNAME];
                         \colon {\tt CmdNameName[sub][sub][ext]} = \mathcal{NEWNAME}^{sub}_{sub} ext
                    482 \newcommandx{\cmdmthname}[2][2=]
                    483 {\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
                      484 \newcommandx{\cmdmthargname}[2][2=]
                            {\usrmth{#1}{Name}{argname}[#2]}
\cmdmthoargname ... to do!
                         • \cmdmthoargname{CMDNAME};
                            \verb|\CMDNAMEName[sub][sub][arg]| = \mathcal{CMDNAME}_{sub}^{sub}(arg)
                         • \cmdmthoargname{cmdName}[NEWNAME];
                            \colon {\tt CmdNameName[sub][sub][arg]} = \mathcal{NEWNAME}^{sub}_{sub}(arg)
                      486 \newcommandx{\cmdmthoargname}[2][2=]
                            {\usrmth{#1}{Name}{oargname}[#2]}
 \cmdmthparname ... to do!
                         • \cmdmthparname{CMDNAME};
                            \CMDNAMEName[sub][sub][ext1]{par}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1[par]ext2
                         • \cmdmthparname{cmdName}[NEWNAME];
                            \cmdNameName[sub][sub][ext1]{par}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2
                      488 \newcommandx{\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];
                            \verb|\cmdNameName[sub][sub][par]| = \mathcal{NEWNAME}^{sub}_{sub}[par]
                      490 \newcommandx{\cmdmthoparname}[2][2=]
                            {\usrmth{#1}{Name}{oparname}[#2]}
   \mthfam, ... to do!
                         \bullet \  \, \texttt{\bar{NAME}[sub][sup][Ext1]{Arg}[Ext2]} = \mathcal{NAME}^{sup}_{sub}Ext1(Arg)Ext2
                         \bullet \  \, \texttt{\baselinestable MAME} \  \, \texttt{\baseline Sub} \  \, \texttt{\baseline Ext1} \  \, \texttt{\baseline Par} \  \, \texttt{\baseline Ext2} \  \, = \  \, \mathcal{NAME} \  \, \mathcal{E}^{sup}_{sub} Ext1 [Par] Ext2
                      492 %% Style for Families
                      493 \cmdmthall{fam}\newcommand{\mthstyfam}{\mathscr}
      \AFam, ... to do!
                     \mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{I}, \mathcal{H}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{F}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Y}
                      494 \seqoflatupp{Fam}{mthfam}
      \cmdmthfam ... to do!
                         \cmdmthfam{CMDNAME};
                            \CMDNAMEFam[sub][sub][ext] = \mathscr{CMDNAMEFam}[sub][sub][ext]
                         • \cmdmthfam{cmdName}[NEWNAME];
                            \cmdNameFam[sub][sub][ext] = \mathcal{NEWNAME}_{sub}^{sub}ext
                      495 \newcommandx{\cmdmthfam}[2][2=]
                           {\usrmth{#1}{Fam}{fam}[#2]}
  \cmdmthargfam ... to do!
                         • \cmdmthargfam{CMDNAME};
                            • \cmdmthargfam{cmdName}[NEWNAME];
                            \verb|\cmdNameFam[sub][sub][ext1]{arg}[ext2] = \mathscr{NEWNAME}^{sub}_{sub}ext1(arg)ext2
```

```
497 \newcommandx{\cmdmthargfam}[2][2=]
                          {\usrmth{#1}{Fam}{argfam}[#2]}
\cmdmthoargfam ... to do!
                        \cmdmthoargfam{CMDNAME};
                           \CMDNAMEFam[sub][sub][arg] = \mathscr{CMDNAMEFam}[sub](arg)
                        \cmdmthoargfam{cmdFam}[NEWNAME];
                           \verb|\cmdFamFam[sub][sub][arg]| = \mathcal{NEWNAME}_{sub}^{sub}(arg)
                     499 \newcommandx{\cmdmthoargfam}[2][2=]
                          {\usrmth{#1}{Fam}{oargfam}[#2]}
 \cmdmthparfam ... to do!
                        • \cmdmthparfam{CMDNAME};
                           \verb|\CMDNAMEFam[sub][sub][ext1]{par}[ext2] = \mathscr{CMDNAMEFam}[sub][sub][ext1][par][ext2]
                        • \cmdmthparfam{cmdName}[NEWNAME];
                           501 \newcommandx{\cmdmthparfam}[2][2=]
                          {\usrmth{#1}{Fam}{parfam}[#2]}
\cmdmthoparfam ... to do!
                        • \cmdmthoparfam{CMDNAME};
                           \CMDNAMEFam[sub][sub][par] = \mathscr{CMDNAMEFam}[sub][par]
                        \cmdmthoparfam{cmdFam}[NEWNAME];
                           \label{eq:cmdFamFam} $$ \operatorname{[sub]}[\operatorname{par}] = \mathcal{NEWNAME}^{sub}_{sub}[\operatorname{par}] $$
                     503 \newcommandx{\cmdmthoparfam}[2][2=]
                          {\usrmth{#1}{Fam}{oparfam}[#2]}
  \mthcls, ... to do!
                        • \mthcls{NAME}[sub][sup][Ext] = \mathcal{NAME}_{sub}^{sup}Ext
                        • \mthargcls{NAME}[sub][sup][Ext1]{Arg}[Ext2] = \mathcal{NAME}_{sub}^{sup}Ext1(Arg)Ext2
                        \bullet \ \texttt{\ \ } \texttt{[Sub] [Sup] [Ext1] \{Par\} [Ext2]} = \mathcal{NAME} sub_{sub}^{sup} Ext1[Par] Ext2
                     505 %% Style for Classes
                     506 \cmdmthall{cls}\newcommand{\mthstycls}{\matheus}
     \ACls, ... to do!
                    \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}
                     507 \seqoflatupp{Cls}{mthcls}
     \cmdmthcls ... to do!
                        • \cmdmthcls{CMDNAME};
                           \CMDNAMEC1s[sub][sub][ext] = \mathcal{CMDNAME}_{sub}^{sub}ext
                        • \cmdmthcls{cmdName}[NEWNAME];
                           \cmdNameCls[sub][sub][ext] = NEWNAME_{sub}^{sub}ext
                     508 \newcommandx{\cmdmthcls}[2][2=]
                          {\usrmth{#1}{Cls}{cls}[#2]}
 \cmdmthargcls ... to do!
                        • \cmdmthargcls{CMDNAME};
                           \CMDNAMECls[sub][sub][ext1]{arg}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1(arg)ext2
                        • \cmdmthargcls{cmdName}[NEWNAME];
                           \label{lem:lemma:energy:ext2} $$ \operatorname{CmdNameCls[sub][sub][ext1]} = \mathcal{NEWNAME}_{sub}^{sub} ext1(arg)ext2$
                     510 \newcommandx{\cmdmthargcls}[2][2=]
                          {\usrmth{#1}{Cls}{argcls}[#2]}
\cmdmthoargcls ... to do!
                        • \cmdmthoargcls{CMDNAME};
```

\CMDNAMECls[sub][sub] [arg] = $\mathcal{CMDNAME}_{sub}^{sub}(arg)$

```
\cmdmthoargcls{cmdCls}[NEWNAME];
                                                   \verb|\cmdClsCls[sub][sub][arg]| = NEWNAME_{sub}^{sub}(arg)
                                        512 \newcommandx{\cmdmthoargcls}[2][2=]
                                                  {\usrmth{#1}{Cls}{oargcls}[#2]}
  \cmdmthparcls ... to do!
                                              \cmdmthparcls{CMDNAME};
                                                   \verb|\CMDNAMECls[sub][sub][ext1]{par}[ext2] = \verb|\CMDNAME| sub| ext1| par| ext2|
                                              • \cmdmthparcls{cmdName}[NEWNAME];
                                                   \verb|\cmdNameCls[sub][sub][ext1]{par}[ext2] = NEWNAME_{sub}^{sub}ext1[par]ext2|
                                        514 \newcommandx{\cmdmthparcls}[2][2=]
                                                  {\usrmth{#1}{Cls}{parcls}[#2]}
\cmdmthoparcls ... to do!
                                              • \cmdmthoparcls{CMDNAME};
                                                  \verb|\CMDNAMECls[sub][sub][par]| = \verb|\CMDNAME|_{sub}^{sub}[par]|
                                              • \cmdmthoparcls{cmdCls}[NEWNAME];
                                                  \cmdClsCls[sub][sub][par] = \mathcal{NEWNAME}_{sub}^{sub}[par]
                                         516 \newcommandx{\cmdmthoparcls}[2][2=]
                                        517 {\usrmth{#1}{Cls}{oparcls}[#2]}
    \mthsig, ... to do!
                                              • \mthsig{Name} [sub] [sup] [Ext] = \mathcal{N}_{sub}Ext
                                              \bullet \ \texttt{\ \ } \texttt{[Sub] [Sup] [Ext1] \{Arg\} [Ext2]} = \mathcal{N}\!\mathit{ame}^{sup}_{sub} Ext1(Arg) Ext2
                                              \bullet \ \texttt{\t Name} \ \texttt{[Sub]} \ \texttt{[Sup]} \ \texttt{\t [Ext1]} \ \texttt{\t Par} \ \texttt{\t [Ext2]} \ = \ \textit{\textbf{\textit{Name}}} \ sub \ \texttt{\t Ext1} \ \texttt{\t [Par]} \ \texttt{\t Ext2}
                                        518 %% Style for Signatures
                                        519 \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},~Q,~\mathcal{R},~\mathcal{S},~\mathcal{T},~\mathcal{U},~\mathcal{V},~\mathcal{W},~X,~\mathcal{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
                                        520 \seqoflatlet{Sig}{mthsig}\seqofgrklow{Sig}{mthsig}
         \cmdmthsig ... to do!
                                              • \cmdmthsig{cmdName};
                                                  \colon d \cmdNameSig[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                              • \cmdmthsig{cmdName}[NewName];
                                                  \verb|\cmdNameSig[sub][sub][ext]| = \textit{NewName}_{sub}^{sub} ext|
                                         521 \newcommandx{\cmdmthsig}[2][2=]
                                        522 {\usrmth{#1}{Sig}{sig}[#2]}
  \cmdmthargsig ... to do!
                                              • \cmdmthargsig{cmdName};
                                                  \verb|\cmdNameSig[sub][sub][ext1]{arg}[ext2] = cmd Name_{sub}^{sub} ext1(arg) ext2
                                              • \cmdmthargsig{cmdName}[NewName];
                                                  \cmdNameSig[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                        523 \newcommandx{\cmdmthargsig}[2][2=]
                                        524 {\usrmth{#1}{Sig}{argsig}[#2]}
\cmdmthoargsig ... to do!
                                              • \cmdmthoargsig{cmdName};
                                                  \colon 
                                              • \cmdmthoargsig{cmdSig}[NewName];
                                                  \c ModSigSig[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                                         525 \newcommandx{\cmdmthoargsig}[2][2=]
                                        526 {\usrmth{#1}{Sig}{oargsig}[#2]}
```

```
\cmdmthparsig ... to do!
                                               • \cmdmthparsig{cmdName};
                                                   \verb|\cmdNameSig[sub][sub][ext1]{par}[ext2] = \textit{cmdName}_{sub}^{sub}ext1[par]ext2
                                               • \cmdmthparsig{cmdName}[NewName];
                                                   \verb|\cmdNameSig[sub][sub][ext1]{par}[ext2] = \textit{NewName}_{sub}^{sub}ext1[par]ext2
                                         527 \newcommandx{\cmdmthparsig}[2][2=]
                                                   {\usrmth{#1}{Sig}{parsig}[#2]}
\cmdmthoparsig ... to do!
                                               • \cmdmthoparsig{cmdName};
                                                   \verb|\cmdNameSig[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                                               • \cmdmthoparsig{cmdSig}[NewName];
                                                   \color{location} \col
                                         529 \newcommandx{\cmdmthoparsig}[2][2=]
                                                   {\usrmth{#1}{Sig}{oparsig}[#2]}
    \mthstr, ... to do!
                                               • \mthstr{Name} [sub] [sup] [Ext] = \mathfrak{Name}_{sub}^{sup} Ext
                                               • \mthargstr{Name}[sub][sup][Ext1]{Arg}[Ext2] = \mathfrak{Name}_{sub}^{sup}Ext1(Arg)Ext2
                                               \bullet \ \texttt{\ \ } \texttt{[Sub] [Sup] [Ext1] \{Par\} [Ext2]} = \mathfrak{Name}^{sup}_{sub} Ext1[Par]Ext2
                                         531 %% Style for Structures
                                         532 \mbox{ \cmdmthall{str}\newcommand{\mbox{\mbox{\cmthstystr}}{\mbox{\cmdmthfrak}}}
         \aStr, ... to do!
                                       a, b, c, d, e, f, g, h, i, j, f, l, m, n, o, p, q, r, s, f, u, v, w, r, h, z
                                       \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{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}
                                       \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
                                        533 \seqoflatlet{Str}{mthstr}\seqofgrklow{Str}{mthstr}
         \cmdmthstr ... to do!
                                               \cmdmthstr{cmdName};
                                                   \verb|\cmdNameStr[sub][sub][ext]| = \mathfrak{cmdName}_{sub}^{sub} ext
                                               • \cmdmthstr{cmdName} [NewName];
                                                   \c MameStr[sub][sub][ext] = \mathfrak{NewName}_{sub}^{sub}ext
                                         534 \newcommandx{\cmdmthstr}[2][2=]
                                        535 {\usrmth{#1}{Str}{str}[#2]}
  \cmdmthargstr ... to do!
                                               \cmdmthargstr{cmdName};
                                                   \cmdNameStr[sub][sub][ext1]{arg}[ext2] = cmdMame_{sub}^{sub}ext1(arg)ext2
                                               • \cmdmthargstr{cmdName}[NewName];
                                                   \cmdNameStr[sub][sub][ext1]{arg}[ext2] = \mathfrak{NewName}_{sub}^{sub}ext1(arg)ext2
                                         536 \mbox{ } \mbox{cmdmthargstr}[2][2=]
                                                  {\usrmth{#1}{Str}{argstr}[#2]}
\cmdmthoargstr ... to do!
                                               • \cmdmthoargstr{cmdName};
                                                   \cmdNameStr[sub] [sub] [arg] = cmdMame_{sub}^{sub}(arg)
                                               • \cmdmthoargstr{cmdStr}[NewName];
                                                   \colon dStrStr[sub][sub][arg] = \mathfrak{NewName}^{sub}_{sub}(arg)
                                         538 \newcommandx{\cmdmthoargstr}[2][2=]
                                                   {\usrmth{#1}{Str}{oargstr}[#2]}
  \cmdmthparstr ... to do!
                                               • \cmdmthparstr{cmdName};
                                                   \verb|\cmdNameStr[sub][sub][ext1]{par}[ext2] = \verb|\cmdName$| subert1[par] ext2|
```

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• \cmdmthparstr{cmdName} [NewName];
                                                \verb|\cmdNameStr[sub][sub][ext1]{par}[ext2] = \mathfrak{NewName}_{sub}^{sub}ext1[par]ext2
                                      540 \newcommandx{\cmdmthparstr}[2][2=]
                                                {\usrmth{#1}{Str}{parstr}[#2]}
\cmdmthoparstr ... to do!
                                            • \cmdmthoparstr{cmdName};
                                                \verb|\cmdNameStr[sub][sub][par]| = \mathfrak{cmdMame}_{sub}^{sub}[par]|
                                            • \cmdmthoparstr{cmdStr}[NewName];
                                                \color{local} 
                                      542 \newcommandx{\cmdmthoparstr}[2][2=]
                                               {\usrmth{#1}{Str}{oparstr}[#2]}
    \mthset, ... to do!
                                            • \mathbb{N} [sub] [sup] [Ext] = \mathbb{N} ame \mathbb{N} \mathbb{N}
                                            • \mthargset{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2
                                            \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1][Par][Ext2]} = \mathrm{Name}_{sub}^{sup} Ext1[Par]Ext2
                                      544 %% Style for Sets
                                      545 \mbox{ \mbox{\mbox{mthall{set}}\newcommand{\mbox{\mbox{\mbox{mthstyset}}{\mbox{\mbox{\mbox{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,\,\varTheta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\varPi,\,P,\,P,\,\Sigma,\,\varSigma,\,T,\,\Upsilon,\,\Phi,\,\varPhi,\,X,\,\Psi,\,\Omega
                                      546 \seqoflet{Set}{mthset}
         \cmdmthset ... to do!
                                            • \cmdmthset{cmdName};
                                                \colon = cmdNameSet[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                            • \cmdmthset{cmdName}[NewName];
                                                \colon = NewName_{sub}^{sub} = NewName_{sub}^{sub} = xt
                                      547 \newcommandx{\cmdmthset}[2][2=]
                                      548 {\usrmth{#1}{Set}{set}[#2]}
  \cmdmthargset ... to do!
                                            • \cmdmthargset{cmdName};
                                                \cmdNameSet[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                            • \cmdmthargset{cmdName}[NewName];
                                                \colon = NewName (sub) [sub] [ext1] {arg} [ext2] = NewName (sub) ext1 (arg) ext2
                                      549 \newcommandx{\cmdmthargset}[2][2=]
                                                {\usrmth{#1}{Set}{argset}[#2]}
\cmdmthoargset ... to do!
                                            • \cmdmthoargset{cmdName};
                                                \colon = cmdNameSet[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                            • \cmdmthoargset{cmdSet}[NewName];
                                                \verb|\cmdSetSet[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
                                      551 \newcommandx{\cmdmthoargset}[2][2=]
                                      552 {\usrmth{#1}{Set}{oargset}[#2]}
  \cmdmthparset ... to do!
                                            • \cmdmthparset{cmdName};
                                                \verb|\cmdNameSet[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                                            • \cmdmthparset{cmdName}[NewName];
                                                \cmdNameSet[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                                      553 \newcommandx{\cmdmthparset}[2][2=]
                                      554 {\usrmth{#1}{Set}{parset}[#2]}
```

```
\cmdmthoparset ... to do!
                       \cmdmthoparset{cmdName};
                          \colon dNameSet[sub][sub][par] = cmdName_{sub}^{sub}[par]
                       • \cmdmthoparset{cmdSet}[NewName];
                          \colon dSetSet[sub][sub][par] = NewName_{sub}^{sub}[par]
                    555 \newcommandx{\cmdmthoparset}[2][2=]
                          {\usrmth{#1}{Set}{oparset}[#2]}
 \cmdmthsetext ... to do!
                    557 \newcommandx{\cmdmthsetext}[3][2=, 3=]
                    558 {\cmdmthset{#1}[#2]\caselower[q]{#1}%
                          \usrmthlet{\thestring}{Sym}{sym}
                            [\defval{#3}{\defval{\empchk{#2}{\lowercase{#2}}}}{\thestring}}]%
                         \usrmthlet{\thestring}{Elm}{elm}
                    562
                             [\defval{#3}{\defval{\mpchk{#2}}}] 
  \mthrel, ... to do!
                       • \mthrel{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                       \bullet \  \, \texttt{\bar{Name}[Sub][Sub][Ext1][Arg][Ext2]} = Name_{sub}^{sup}Ext1(Arg)Ext2
                       • \mthparrel{Name}[sub][sup][Ext1]{Par}[Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                    563 %% Style for Relations
                    564 \mbox{ \label{rel}\newcommand{\mbstyrel}{\mathbb{}}}
    \aRel, ... 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, 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,\,\varSigma,\,\Sigma,\,T,\,\Upsilon,\,\varPhi,\,\varPhi,\,X,\,\Psi,\,\Omega
                    565 \seqoflet{Rel}{mthrel}
    \cmdmthrel ... to do!
                       \cmdmthrel{cmdName};
                         \verb|\cmdNameRel[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                       • \cmdmthrel{cmdName}[NewName];
                         \verb|\cmdNameRel[sub][sub][ext]| = NewName_{sub}^{sub}ext
                    566 \newcommandx{\cmdmthrel}[2][2=]
                    567 {\usrmth{#1}{Rel}{rel}[#2]}
 \verb|\cmdmthargrel| ... to do!
                       \cmdmthargrel{cmdName};
                         \verb|\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
                    568 \newcommandx{\cmdmthargrel}[2][2=]
                    569 {\usrmth{#1}{Rel}{argrel}[#2]}
\cmdmthoargrel ... to do!
                       \cmdmthoargrel{cmdName};
                         \cmdNameRel[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                       • \cmdmthoargrel{cmdRel}[NewName];
                          \colon dRelRel[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                    570 \newcommandx{\cmdmthoargrel}[2][2=]
                    571 {\usrmth{#1}{Rel}{oargrel}[#2]}
 \cmdmthparrel ... to do!
                       \cmdmthparrel{cmdName};
                         \verb|\cmdNameRel[sub][sub][ext1][par][ext2]| = cmdName_{sub}^{sub}ext1[par]ext2|
```

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• \cmdmthparrel{cmdName}[NewName];
                                                                       \verb|\cmdNameRel[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2]|
                                                        572 \newcommandx{\cmdmthparrel}[2][2=]
                                                                      {\usrmth{#1}{Rel}{parrel}[#2]}
\cmdmthoparrel ... to do!
                                                                • \cmdmthoparrel{cmdName};
                                                                      \verb|\cmdNameRel[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                                                                • \cmdmthoparrel{cmdRel}[NewName];
                                                                      \colone{local} \col
                                                         574 \newcommandx{\cmdmthoparrel}[2][2=]
                                                                      {\usrmth{#1}{Rel}{oparrel}[#2]}
      \mthfun, ... to do!
                                                                • \mathbb{N} [sub] [sup] [Ext] = \mathbb{N} = \mathbb{N}
                                                                \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1][Arg][Ext2]} = \mathsf{\bar{Name}}_{sub}^{sup} Ext1(Arg) Ext2
                                                                 \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1]{Par}[Ext2]} = \mathsf{Name}^{sup}_{sub}Ext1[Par]Ext2
                                                         576 %% Style for Functions
                                                        577 \mbox{ \mbox{maths1}{fun}\newcommand{\mbox{mthstyfun}{\mbox{mathsf}}}
             \arraycolor{1}{a}Fun, ... 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,\,\mathsf{o},\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                                      \mathsf{A},\,\mathsf{B},\,\mathsf{\Gamma},\,\mathsf{\Delta},\,\mathsf{E},\,\mathsf{E},\,\mathsf{Z},\,\mathsf{H},\,\Theta,\,\varTheta,\,\mathsf{I},\,\mathsf{K},\,\mathsf{K},\,\mathsf{K},\,\mathsf{\Lambda},\,\mathsf{M},\,\mathsf{N},\,\Xi,\,\mathsf{O},\,\mathsf{\Pi},\,\varPi,\,\mathsf{P},\,\mathsf{P},\,\mathsf{\Sigma},\,\varSigma,\,\mathsf{T},\,\Upsilon,\,\Phi,\,\varPhi,\,\mathsf{X},\,\Psi,\,\Omega
                                                        578 \seqoflet{Fun}{mthfun}
             \cmdmthfun ... to do!
                                                                • \cmdmthfun{cmdName};
                                                                      \cmdNameFun[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                 • \cmdmthfun{cmdName}[NewName];
                                                                      \colon = NewName_{sub}^{sub} = NewName_{sub}^{sub} = xt
                                                         579 \newcommandx{\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
                                                         581 \newcommandx{\cmdmthargfun}[2][2=]
                                                                      {\usrmth{#1}{Fun}{argfun}[#2]}
\cmdmthoargfun ... to do!
                                                                • \cmdmthoargfun{cmdName};
                                                                      \colon = \
                                                                 • \cmdmthoargfun{cmdFun} [NewName];
                                                                      \verb|\cmdFunFun[sub][sub][arg]| = \verb|\NewName|_{sub}^{sub}(arg)
                                                         583 \newcommandx{\cmdmthoargfun}[2][2=]
                                                        584 {\usrmth{#1}{Fun}{oargfun}[#2]}
   \cmdmthparfun ... to do!
                                                                • \cmdmthparfun{cmdName};
                                                                      \verb|\cmdNameFun[sub][sub][ext1]{par}[ext2] = \verb|\cmdName$| sub| ext1[par]ext2|
                                                                 • \cmdmthparfun{cmdName}[NewName];
                                                                      \cmdNameFun[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                                                         585 \newcommandx{\cmdmthparfun}[2][2=]
                                                                    {\usrmth{#1}{Fun}{parfun}[#2]}
```

```
\cmdmthoparfun ... to do!
                                                                 • \cmdmthoparfun{cmdName};
                                                                        \cmdNameFun[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                                                  • \cmdmthoparfun{cmdFun} [NewName];
                                                                        \verb|\cmdFunFun[sub][sub][par]| = \verb|\NewName|_{sub}^{sub}[par]|
                                                          587 \newcommandx{\cmdmthoparfun}[2][2=]
                                                                        {\usrmth{#1}{Fun}{oparfun}[#2]}
      \mthsym, ... to do!
                                                                 • \mthsym{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                                 \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1]\{Arg\}[Ext2]} = \mathtt{Name}^{sup}_{sub}Ext1(Arg)Ext2
                                                                  • \mathbb{E}_{sub}[Sub][Sup][Ext1][Par][Ext2] = \mathbb{E}_{sub}[Ext1][Par][Ext2]
                                                         589 %% Style for Symbols
                                                         590 \mbox{\mbox{\mbox{$\sim$}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{$\sim$}}}{\mathbf{\mbox{$\sim$}}}
             \aggreen \
                                                      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, T, \Phi, \Phi, X, \Psi, \Omega
                                                         591 \seqoflet{Sym}{mthsym}
             \cmdmthsym ... to do!
                                                                 \cmdmthsym{cmdName};
                                                                        \verb|\cmdNameSym[sub][sub][ext]| = \verb|\cmdName|_{sub}^{sub} ext|
                                                                  • \cmdmthsym{cmdName}[NewName];
                                                                        \verb|\cmdNameSym[sub][sub][ext]| = \verb|\NewName|_{sub}^{sub} ext|
                                                          592 \newcommandx{\cmdmthsym}[2][2=]
                                                         593 {\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];
                                                                        \cmdNameSym[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                         594 \newcommandx{\cmdmthargsym}[2][2=]
                                                                     {\usrmth{#1}{Sym}{argsym}[#2]}
\cmdmthoargsym ... to do!
                                                                  \cmdmthoargsym{cmdName};
                                                                        \colon cond name Sym [sub] [sub] [arg] = cmd Name <math>_{sub}^{sub} (arg)
                                                                  • \cmdmthoargsym{cmdSym}[NewName];
                                                                        \colon 
                                                          596 \newcommandx{\cmdmthoargsym}[2][2=]
                                                                     {\usrmth{#1}{Sym}{oargsym}[#2]}
   \cmdmthparsym ... to do!
                                                                 \cmdmthparsym{cmdName};
                                                                         \c MameSym[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                                                                  • \cmdmthparsym{cmdName}[NewName];
                                                                        \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\NewName|^{sub}_{sub}ext1[par]ext2|
                                                          598 \newcommandx{\cmdmthparsym}[2][2=]
                                                                           {\usrmth{#1}{Sym}{parsym}[#2]}
\cmdmthoparsym ... to do!
                                                                  \cmdmthoparsym{cmdName};
                                                                        \cmdNameSym[sub][sub][par] = cmdName_{sub}^{sub}[par]
```

```
\cmdmthoparsym{cmdSym}[NewName];
                           \verb|\cmdSymSym[sub][sub][par]| = \verb|\NewName|_{sub}^{sub}[par]|
                      600 \newcommandx{\cmdmthoparsym}[2][2=]
                           {\usrmth{#1}{Sym}{oparsym}[#2]}
  \mbox{\em mthelm}, ... to do!
                         • \mthelm{Name} [sub] [sup] [Ext] = Name_{sub}^{sup}Ext
                         • \mthargelm{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2
                         • \mathbb{E}[Sub][Sub][Sub][Ext1][Par][Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                      602 %% Style for Elements
                      603 \mbox{ \cmdmthall{elm}\newcommand{\mbox{\mbox{mthstyelm}}{\mbox{\mbox{\cmdmthall}}}}
     \all lm, ... 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
                      604 \seqoflet{Elm}{mthelm}
     \cmdmthelm ... to do!
                         \cmdmthelm{cmdName};
                           \verb|\cmdNameElm[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                         • \cmdmthelm{cmdName}[NewName];
                           \verb|\cmdNameElm[sub][sub][ext]| = NewName_{sub}^{sub}ext
                      605 \newcommandx{\cmdmthelm}[2][2=]
                      606 {\usrmth{#1}{Elm}{elm}[#2]}
 \cmdmthargelm ... to do!
                         • \cmdmthargelm{cmdName};
                           \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
                      607 \newcommandx{\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)
                      609 \newcommandx{\cmdmthoargelm}[2][2=]
                           {\usrmth{#1}{Elm}{oargelm}[#2]}
 \cmdmthparelm ... to do!
                         • \cmdmthparelm{cmdName};
                           \label{local_cond_norm_sub} $$ \operatorname{Lim}[\operatorname{sub}][\operatorname{sub}][\operatorname{ext1}][\operatorname{par}] = cmdName_{\operatorname{sub}}^{\operatorname{sub}} ext1[par]ext2 $$
                         • \cmdmthparelm{cmdName}[NewName];
                           \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2|
                      611 \newcommandx{\cmdmthparelm}[2][2=]
                      612 {\usrmth{#1}{Elm}{parelm}[#2]}
\cmdmthoparelm ... to do!
                         • \cmdmthoparelm{cmdName};
                           \verb|\cmdNameElm[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                         • \cmdmthoparelm{cmdElm}[NewName];
                           \colonerge{cmdElmElm[sub][sub][par]} = NewName_{sub}^{sub}[par]
                      613 \newcommandx{\cmdmthoparelm}[2][2=]
                      614 {\usrmth{#1}{Elm}{oparelm}[#2]}
```

```
\cmdmthsymelm ... to do!
                                              \cmdmthsymelm{cmdName};
                                                  \colone{cmdNameSym[sub][sub][ext] = cmdName}_{sub}^{sub}ext}
                                                  {\tt \cmdNameElm[sub][sub][ext]} = cmdName^{sub}_{sub}ext
                                              • \cmdmthsymelm{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][ext]| = \verb|\NewName|_{sub}^{sub} ext|
                                                 \colon dNameElm[sub][sub][ext] = NewName^{sub}_{sub}ext
                                        616 \newcommandx{\cmdmthsymelm}[2][2=]
                                                   {\cmdmthsym{#1}[#2]%
                                        618
                                                   \cmdmthelm{#1}[#2]}
 \cmdmthargsymelm ... to do!
                                             • \cmdmthargsymelm{cmdName};
                                                  \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|^{sub}_{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
                                         619 \newcommandx{\cmdmthargsymelm}[2][2=]
                                                   {\cmdmthargsym{#1}[#2]%
                                                   \cmdmthargelm{#1}[#2]}
                                        621
\cmdmthoargsymelm ... to do!
                                              \cmdmthoargsymelm{cmdName};
                                                  \colon dNameElm[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                              • \cmdmthoargsymelm{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][arg]| = \verb|\NewNames|^{sub}(arg)
                                                  \verb|\cmdNameElm[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
                                        622 \mbox{ } [2] [2=]
                                                  {\cmdmthoargsym{#1}[#2]%
                                                   \cmdmthoargelm{#1}[#2]}
                                        624
 \cmdmthparsymelm ... to do!
                                              \cmdmthparsymelm{cmdName};
                                                  \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1[par]ext2|
                                                  \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                                              • \cmdmthparsymelm{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdNames|^{sub}_{sub}ext1[par]ext2|
                                                  \colone{lm} [sub] [sub] [ext1] [par] [ext2] = NewName_{sub}^{sub} ext1[par] ext2
                                         625 \newcommandx{\cmdmthparsymelm}[2][2=]
                                                   {\cmdmthparsym{#1}[#2]%
                                        627
                                                   \cmdmthparelm{#1}[#2]}
                                     ... to do!
\cmdmthoparsymelm
                                              \cmdmthoparsymelm{cmdName};
                                                  \verb|\cmdNameSym[sub][sub][par]| = \verb|\cmdName|^{sub}_{sub}[par]|
                                                  \colone{locality} \colone{lo
                                              • \cmdmthoparsymelm{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][par]| = \verb|\NewName|_{sub}^{sub}[par]|
                                                  628 \newcommandx{\cmdmthoparsymelm}[2][2=]
                                                   {\cmdmthoparsym{#1}[#2]%
                                                   \cmdmthoparelm{#1}[#2]}
                                        \mthluop, ... to do!
```

```
• \mthluop{\oplus}[sub][sup][Ext] = \bigoplus_{sub}^{sup} Ext
                                                  • \mthlbop{\oplus}[sub][sup][Ext] = \bigoplus_{sub}^{sup} Ext
                                             632 %% Style for \LaTex Operators
                                             633 \t {luop}\newcommand{\mthstyluop}[1]{\textstyle\mathop{#1}}
                                            634 \cmdmth{lbop}\newcommand{\mthstylbop}[1]{\textstyle\mathbin{#1}}
\cmdmthluop, ... to do!
                                                  • \cmdmthluop{cmdName};
                                                      \verb|\cmdNameUOp[sub][sub][ext]| = cmdName_{sub}^{sub} ext|
                                                  • \cmdmthluop{cmdName}[\oplus];
                                                      \verb|\cmdNameUOp[sub][sub][ext]| = \oplus_{sub}^{sub} ext
                                                  \cmdmthlbop{cmdName};
                                                       \cmdNameBOp[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                  • \cmdmthlbop{cmdName}[\oplus];
                                                      \colon = 0 [sub] [sub] [ext] = \oplus_{sub}^{sub} ext
                                             635 \newcommandx{\cmdmthluop}[2][2=]
                                                     {\usrmth{#1}{UOp}{luop}[#2]}
                                             637 \newcommandx{\cmdmthlbop}[2][2=]
                                                     {\usrmth{#1}{BOp}{lbop}[#2]}
                   \mthlrel ... to do!
                                                  • \mthlrel{\preceq}[sub][sup][Ext] = \leq_{sub}^{sup} Ext
                                            639 %% Style for \LaTex Relations
                                            640 \cmdmth{lrel}\newcommand{\mthstylrel}{\mathrel}
            \cmdmthlrel \dots to \operatorname{do}!
                                                  • \cmdmthlrel{cmdName};
                                                       \cmdNameRel[sub][sub][ext] = cmdName_{sub}^{sub} ext
                                                  • \cmdmthlrel{cmdName}[\preceq];
                                                       \verb|\cmdNameRel[sub][sub][ext]| = \preceq_{sub}^{sub} ext
                                             641 \newcommandx{\cmdmthlrel}[2][2=]
                                            642 {\usrmth{#1}{Rel}{lrel}[#2]}
                                            \mthsnt, ... to do!
                                                  • \mathbb{N} [sub] [sup] [Ext] = \mathbb{N} = \mathbb{N}
                                                  \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1]\{Arg\}[Ext2]} = \mathsf{Name}^{sup}_{sub}Ext1(Arg)Ext2
                                                  • \mathbb{E}_{sub}[Sub][Sub][Ext1][Par][Ext2] = \mathbb{E}_{sub}[Ext1][Par][Ext2]
                                            644 %% Style for Sentences
                                            645 \mbox{ \mbox{$\sim$}} \mbox{\mbox{$\sim$}} \mbox
              \aSnt, ... 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
                                            646 \seqoflet{Snt}{mthsnt}
              \cmdmthsnt ... to do!
                                                  • \cmdmthsnt{cmdName};
                                                      • \cmdmthsnt{cmdName}[NewName];
                                                      \colon = NewName_{sub}^{sub}[sub][ext] = NewName_{sub}^{sub}ext
                                            647 \newcommandx{\cmdmthsnt}[2][2=]
                                            648 {\usrmth{#1}{Snt}{snt}[#2]}
       \c cmdmthargsnt ... to do!
```

```
\cmdmthargsnt{cmdName};
                          \verb|\cmdNameSnt[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1(arg)ext2|
                        \cmdmthargsnt{cmdName}[NewName];
                          \verb|\cmdNameSnt[sub][sub][ext1]{arg}[ext2] = \verb|\NewName|^{sub}_{sub}ext1(arg)ext2|
                     649 \newcommandx{\cmdmthargsnt}[2][2=]
                          {\usrmth{#1}{Snt}{argsnt}[#2]}
\cmdmthoargsnt ... to do!
                        \cmdmthoargsnt{cmdName};
                          \verb|\cmdNameSnt[sub][sub][arg]| = \verb|\cmdNames|^{sub}(arg)
                        • \cmdmthoargsnt{cmdName}[NewName];
                          \colon = NewNameSnt[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                     651 \newcommandx{\cmdmthoargsnt}[2][2=]
                          {\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|\cmdNames|^{sub}ext1[par]ext2|
                     653 \newcommandx{\cmdmthparsnt}[2][2=]
                         {\usrmth{#1}{Snt}{parsnt}[#2]}
\cmdmthoparsnt ... to do!
                        \cmdmthoparsnt{cmdName};
                          \verb|\cmdNameSnt[sub][sub][par]| = \verb|\cmdName|^{sub}_{sub}[par]|
                        • \cmdmthoparsnt{cmdName}[NewName];
                          \colon = NewNameSub[sub][sub][par] = NewNameSub[par]
                     655 \newcommandx{\cmdmthoparsnt}[2][2=]
                         {\usrmth{#1}{Snt}{oparsnt}[#2]}
  \mthfrm, ... to do!
                        • \mthfrm{Name} [sub] [sup] [Ext] = Name_{sub}^{sup}Ext
                        \bullet \  \, \texttt{\bar{Name}[Sub][Sup][Ext1]\{Arg\}[Ext2]} = Name_{sub}^{sup}Ext1(Arg)Ext2
                        • \mthparfrm{Name} [sub] [sup] [Ext1] {Par} [Ext2] = Name_{sub}^{sup} Ext1[Par]Ext2
                     657 %% Style for Formulae
                     658 \mbox{\cmmand{\bf https:/mathit}} \
     \aFrm, ... 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,\ \varUpsilon,\ \varPhi,\ \varPhi,\ X,\ \Psi,\ \Omega
                     659 \seqoflet{Frm}{mthfrm}
     \cmdmthfrm ... to do!
                        \cmdmthfrm{cmdName};
                          \cmdNameFrm[sub][sub][ext] = cmdName_{sub}^{sub}ext
                        • \cmdmthfrm{cmdName} [NewName];
                          \cmdNameFrm[sub][sub][ext] = NewName_{sub}^{sub}ext
                     660 \newcommandx{\cmdmthfrm}[2][2=]
                         {\usrmth{#1}{Frm}{frm}[#2]}
 \cmdmthargfrm ... to do!
                        • \cmdmthargfrm{cmdName};
                          \verb|\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
```

```
662 \newcommandx{\cmdmthargfrm}[2][2=]
                        {\usrmth{#1}{Frm}{argfrm}[#2]}
\cmdmthoargfrm ... to do!
                       • \cmdmthoargfrm{cmdName};
                         \colon dNameFrm[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                       • \cmdmthoargfrm{cmdName}[NewName];
                         \c MameFrm[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                    664 \newcommandx{\cmdmthoargfrm}[2][2=]
                    665 {\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];
                         \cmdNameFrm[sub][sub][ext1]\{par\}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                    666 \newcommandx{\cmdmthparfrm}[2][2=]
                    667 {\usrmth{#1}{Frm}{parfrm}[#2]}
\cmdmthoparfrm ... to do!
                       • \cmdmthoparfrm{cmdName};
                         \colon dNameFrm[sub][sub][par] = cmdName_{sub}^{sub}[par]
                       • \cmdmthoparfrm{cmdName}[NewName];
                         \cmdNameFrm[sub][sub][par] = NewName_{sub}^{sub}[par]
                    668 \newcommandx{\cmdmthoparfrm}[2][2=]
                         {\usrmth{#1}{Frm}{oparfrm}[#2]}
                    \mthmat, ... to do!
                       • \mathbb{E}_{sub}[sub][sup][Ext] = \mathbf{Name}_{sub}^{sup}Ext
                       \bullet \  \, \texttt{\bar{Name}[sub][sub][Ext1][Arg][Ext2]} = \mathbf{Name}^{sup}_{sub}Ext1(Arg)Ext2
                       • \mathbb{E}_{sub}[Sub][Sup][Ext1][Par][Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                    671 %% Style for Matrices
                    672 \cmdmthall{mat}\newcommand{\mthstymat}[1]{\boldsymbol{\mathsf{#1}}}
    \aMat, ... 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,\,\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, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                    673 \seqoflet{Mat}{mthmat}
    \cmdmthmat ... to do!
                       • \cmdmthmat{cmdName};
                         \c Mame Mat[sub][sub][ext] = cmd Name _{sub}^{sub} ext
                       • \cmdmthmat{cmdName} [NewName];
                         \verb|\cmdNameMat[sub][sub][ext]| = \verb|NewName|^{sub}_{sub} ext|
                    674 \newcommandx{\cmdmthmat}[2][2=]
                    675 {\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
                    676 \newcommandx{\cmdmthargmat}[2][2=]
                    677 {\usrmth{#1}{Mat}{argmat}[#2]}
```

```
\cmdmthoargmat ... to do!
                                                              • \cmdmthoargmat{cmdName};
                                                                    \cmdNameMat[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                                              • \cmdmthoargmat{cmdName}[NewName];
                                                                   \verb|\cmdNameMat[sub][sub][arg]| = \verb|NewName||_{sub}^{sub}(arg)
                                                      678 \newcommandx{\cmdmthoargmat}[2][2=]
                                                                   {\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];
                                                                   \verb|\cmdNameMat[sub][sub][ext1]{par}[ext2] = \verb|NewName|^{sub}_{sub}ext1[par]ext2|
                                                      680 \newcommandx{\cmdmthparmat}[2][2=]
                                                                   {\usrmth{#1}{Mat}{parmat}[#2]}
\cmdmthoparmat ... to do!
                                                              • \cmdmthoparmat{cmdName};
                                                                   \verb|\cmdNameMat[sub][sub][par]| = \mathbf{cmdName}_{sub}^{sub}[par]|
                                                              • \cmdmthoparmat{cmdName}[NewName];
                                                                    \colone{line} 
                                                      682 \newcommandx{\cmdmthoparmat}[2][2=]
                                                                 {\usrmth{#1}{Mat}{oparmat}[#2]}
      \mthvec, ... to do!
                                                              ullet \mthvec{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                                              \bullet \  \, \texttt{\bar{Name}[Sub][Sup][Ext1]\{Arg\}[Ext2]} = Name_{sub}^{sup}Ext1(Arg)Ext2
                                                              \bullet \  \, \texttt{\bar{Name}[Sub][Sup][Ext1]{Par}[Ext2]} = Name_{sub}^{sup}Ext1[Par]Ext2
                                                      684 %% Style for Vectors
                                                     685 \label{lem:command} $$685 \cmdmthall{vec}\newcommand{\mathbf \{\mthstyvec}[1]{\cdsymbol{\mathbf {\#1}}}}
            \aVec, ... 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
                                                     686 \seqoflet{Vec}{mthvec}
            \cmdmthvec ... to do!
                                                              \cmdmthvec{cmdName};
                                                                   \verb|\cmdNameVec[sub][sub][ext]| = cmdName^{sub}_{sub}ext|
                                                              • \cmdmthvec{cmdName} [NewName];
                                                                    \colon = NewName^{sub}_{sub} = NewName^{sub}_{sub} = t
                                                      687 \newcommandx{\cmdmthvec}[2][2=]
                                                      688 {\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
                                                      689 \newcommandx{\cmdmthargvec}[2][2=]
                                                                    {\usrmth{#1}{Vec}{argvec}[#2]}
\cmdmthoargvec ... to do!
                                                              • \cmdmthoargvec{cmdName};
                                                                    \colon = cmdName \col
```

```
\verb|\cmdNameVec[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
               691 \newcommandx{\cmdmthoargvec}[2][2=]
                  {\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
               693 \newcommandx{\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];
                  \cmdNameVec[sub][sub][par] = NewName_{sub}^{sub}[par]
               695 \newcommandx{\cmdmthoparvec}[2][2=]
                  {\usrmth{#1}{Vec}{oparvec}[#2]}
               702 \iftext@
               \adhoc
                 • \adhoc = ad\ hoc
               704 \cmdtxtabr{adhoc}[ad hoc]
    \afortiori
                 • \arrange a fortiori
               705 \cmdtxtabr{afortiori}[a fortiori]
     \apriori
                 • \apriori = a priori
               706 \cmdtxtabr{apriori}[a priori]
                 • \arrowvertaposteriori = a\ posteriori
  \aposteriori
               707 \cmdtxtabr{aposteriori}[a posteriori]
          \cf
                 • \backslash cf = cf.
               708 \cmdtxtabr{cf}[cf.]
      \dedicto
                 • \del{dedicto} = de \ dicto
               709 \cmdtxtabr{dedicto}[de dicto]
      \defacto
                 • \del{defacto} = de \ facto
               710 \cmdtxtabr{defacto}[de facto]
        \dere
                 • \forall dere = de re
               711 \cmdtxtabr{dere}[de re]
\divideetimpera
                 • \divideetimpera = divide et impera
               712 \cmdtxtabr{divideetimpera}[divide et impera]
          \eg
                 • \backslash eg = e.g.
               713 \cmdtxtabr{eg}[e.g.]
```

\cmdmthoargvec{cmdName} [NewName];

```
\ergo
                       ◆ \ergo = ergo
                    714 \cmdtxtabr{ergo}
                       • \errata = errata
         \errata
                    715 \cmdtxtabr{errata}
                       • \erratum = erratum
        \erratum
                    716 \cmdtxtabr{erratum}
           \etal
                      • \ensuremath{\backslash} \mathtt{etal} = et \ al.
                    717 \cmdtxtabr{etal}[et al.]
            \etc
                      • \backslashetc = etc.
                    718 \cmdtxtabr{etc}[etc.]
                      • \forallie = i.e.
              \ie
                    719 \cmdtxtabr{ie}[i.e.]
                       \bullet \mutatismutandis = mutatis\ mutandis
\mutatismutandis
                    720 \cmdtxtabr{mutatismutandis}[mutatis mutandis]
      \percontra
                      • \percontra = per contra
                    721 \cmdtxtabr{percontra}[per contra]
     \primafacie
                       ullet \primafacie = prima\ facie
                    722 \cmdtxtabr{primafacie}[prima facie]
      \viceversa
                       • \viceversa = vice versa
                    723 \cmdtxtabr{viceversa}[vice versa]
                      • \vert vs = vs.
              \vs
                    724 \cmdtxtabr{vs}[vs.]
            \viz
                      • \viz = viz.
                    725 \cmdtxtabr{viz}[viz.]
                    \Afortiori
                      • \Afortiori = A fortiori
                    727 \cmdtxtabr{Afortiori}[A fortiori]
        \Apriori
                       • \Apriori = A \ priori
                    728 \cmdtxtabr{Apriori}[A priori]
    \Aposteriori
                       • \Aposteriori = A posteriori
                    729 \cmdtxtabr{Aposteriori}[A posteriori]
                       • \Dedicto = De \ dicto
        \Dedicto
                    730 \cmdtxtabr{Dedicto}[De dicto]
        \Defacto
                      \bullet \ \ \texttt{\ } \texttt{Defacto} = \textit{De facto}
                    731 \cmdtxtabr{Defacto} [De facto]
           \Dere
                       • \Dere = De re
                    732 \cmdtxtabr{Dere}[De re]
\Divideetimpera
                       • \Divideetimpera = Divide \ et \ impera
```

733 \cmdtxtabr{Divideetimpera}[Divide et impera]

```
\Eg
                • \Eg = E.g.
              734 \cmdtxtabr{Eg}[E.g.]
                • \Errata = Errata
      \Errata
              735 \cmdtxtabr{Errata}
      \Erratum
                • \Erratum = Erratum
              736 \cmdtxtabr{Erratum}
                • \Mutatismutandis = Mutatis mutandis
\Mutatismutandis
              737 \cmdtxtabr{Mutatismutandis}[Mutatis mutandis]
    \Percontra
                • \ensuremath{\backslash} \mathtt{Percontra} = Per\ contra
              738 \cmdtxtabr{Percontra}[Per contra]
   \Primafacie
                \bullet \ \ \verb|\Primafacie| = Prima\ facie
              739 \cmdtxtabr{Primafacie}[Prima facie]
    \Viceversa
                • \forall Viceversa = Vice versa
              740 \cmdtxtabr{Viceversa}[Vice versa]
              • \n naif = naif
        \n
              744 \mbox{cmdtxtabr{naif}[na\"{i}f]}
       \naive
                • \naive = naive
              745 \cmdtxtabr{naive}[na\"{i}ve]
        \role
                • \role = r\hat{o}le
              746 \cmdtxtabr{role}[r\^{o}le]
              \Role
                • \label{eq:Role} \operatorname{Role} = R \hat{o} l e
              748 \cmdtxtabr{Role}[R\^{o}le]
              \aka
                750 \cmdtxtabr{aka}[a.k.a.]
       \contd
                • \contd = contd.
              751 \cmdtxtabr{contd}[contd.]
         \iff
                • \iff = iff
              752 \cmdtxtabr{iff}
                • \ \ \ \ stx = s.t.
         \stx
              753 \cmdtxtabr{stx}[s.t.]
        \resp
                • \resp = resp.
              754 \cmdtxtabr{resp}[resp.]
```

```
\wrt
            755 \cmdtxtabr{wrt}[w.r.t.]
     \wlogx
            • \wdots w.l.o.g.
           756 \cmdtxtabr{wlogx}[w.l.o.g.]
           \Contd
            • \c Contd = Contd.
           758 \cmdtxtabr{Contd}[Contd.]
            • \Wlogx = W.l.o.q.
     \Wlogx
           759 \cmdtxtabr{Wlogx}[W.l.o.g.]
           765 \ifmath@
           \defeq, \seteq ...
           767 \DeclareRobustCommand{\defeq}
           768 {\mthlbop{\triangleq}}
           769 \DeclareRobustCommand{\seteq}
           770 {\mthlbop{:=}}
           \implies, ...
           772 \DeclareRobustCommand{\implies}
           773 {\mthlrel{\Rightarrow}}
           774 \DeclareRobustCommand{\notimplies}
           775 {\mthlrel{\not\Rightarrow}}
 \implied, ... ...
           776 \DeclareRobustCommand{\implied}
           777 {\mthlrel{\Leftarrow}}
           778 \DeclareRobustCommand{\notimplied}
           779 {\mthlrel{\not\Leftarrow}}
\coimplies, ... ...
           780 \DeclareRobustCommand{\coimplies}
           781 {\mthlrel{\Leftrightarrow}}
           782 \verb|\DeclareRobustCommand{\notcoimplies}|
           783 {\mthlrel{\not\!\Leftrightarrow}}
           \cmodels, ... ...
           785 \DeclareRobustCommand{\cmodels}
           786 {\mthlrel{\models}}
           787 \DeclareRobustCommand{\notcmodels}
           788 {\mthlrel{\not\models}}
 \landcequiv, ... ...
           789 \DeclareRobustCommand{\cequiv}
           790 {\mthlrel{\equiv}}
           791 \DeclareRobustCommand{\notcequiv}
           792 {\mthlrel{\not\equiv}}
```

```
\dual, \adj, ... ...
                                       794 \DeclareRobustCommand{\dual}[1]
                                                {\mth{\overline{#1}}}
                                       796 \DeclareRobustCommand{\adj}[1]
                                                {\mth{\mathring{#1}}}
                                        798 \DeclareRobustCommand{\der}[1]
                                                 {\mth{\widehat{#1}}}
                                       800 \DeclareRobustCommand{\trn}[1]
                                       801 \quad \{\mathbf{mth}\{\mathbf{41}\}\}
                         \vec ...
                                       802 \DeclareRobustCommand{\vec}[1]
                                        803 {\mth{\mathaccent"017E{#1}}}
                                       \enumeration, ... ...
                                       805 \\ \end{enumeration}_{\hf}_{\hf}_{\hf}
                                       806 \operatorname{denumerationx}{\mathbf{}}{;}{}{}
     \sequence, ... ...
                                       807 \varcmd{sequence}{\mth}{\left[}{,}{\right]}{}
                                       808 \\ \varcmd{sequencel}{\mth}{\left[}{,}{\right.}{}
                                       809 \varcmd{sequencer}{\mth}{\left.}{,}{\right]}{}
                                       810 \varcmd{sequencex}{\mth}{\left[}{;}{\right]}{}
                                       811 \varcmd{sequencexl}{\mth}{\left[}{;}{\right.}{}
                                       812 \end{sequencexr} {\bf \{} \end{sequencexr}
           \tuple, ... ...
                                       813 \varcmd{tuple}{\mth}{\left\langle}{,}{\right\rangle}{}
                                       814 \varcmd{tuplel}{\mth}{\left\langle}{,}{\right.}{}
                                       815 \varcmd{tupler}{\mth}{\left.}{,}{\right\rangle}{}
                                       816 \varcmd{tuplex}{\mth}{\left\langle}{;}{\right\rangle}{}
                                       817 \varcmd{tuplexl}{\mth}{\left\langle}{;}{\right.}{}
                                       818 \varcmd{tuplexr}{\mth}{\left.}{;}{\right\rangle}{}
                                       \set, ... ...
                                       820 \DeclareRobustCommand{\set}[2]
                                                {\argmid{\left\lbrace}{\argsep{#1}{\,\middle\vert\,}{#2}}{\right\rbrace}}
                                       822 \DeclareRobustCommand{\set1}[1]
                                       823 \quad {\argmid{\left\{ \left( \frac{\#1}{\,\right\} }\right\} }}
                                       824 \DeclareRobustCommand{\setr}[1]
                                                {\argmid{\left.}{#1}{\right\rbrace}}
                        \card ...
                                       826 \DeclareRobustCommand{\card}[1]
                                               {\mth{\argmid{\lvert}{#1}{\rvert}}}
                         ... woa/
                                       828 \DeclareRobustCommand{\pow}[1]
                                                {\bf 2^{\hat 1}}{\cdot}}
                      \denot ...
                                       830 \DeclareRobustCommand{\denot}[1]
                                                {\mth{\argmid{\llbracket}{#1}{\rrbracket}}}
```

```
\emptyrel ...
             833 \DeclareRobustCommand{\emptyrel}
             834 {\mth{\varnothing}}
             \dom, \cod, ... ...
             836 \DeclareRobustCommand{\dom}
             837 {\mthargfun{dom}}
             838 \DeclareRobustCommand{\cod}
             839 {\mthargfun{cod}}
             840 \DeclareRobustCommand{\rng}
             841 {\mthargfun{rng}}
             842 \DeclareRobustCommand{\img}
             843 \quad \{\mathbf{mthargfun\{img\}}\}\
             \prj ...
             845 \DeclareRobustCommand{\prj}
             846 {\mthargfun{prj}}
        \rst ...
             847 \DeclareRobustCommand{\rst}
             848 {\mthlbop{\upharpoonright}}
        \cmp ...
             849 \DeclareRobustCommand{\cmp}
             850 {\mthlbop{\circ}}
             \emptyfun ...
             852 \verb|\DeclareRobustCommand{\emptyfun}|
             853 {\mth{\varnothing}}
             \pto, \pmapsto
             855 \DeclareMathOperator{\pto}
             856 {\ensuremath{\rightharpoonup}}
             857 \DeclareMathOperator{\pmapsto}
             858 \qquad {\tt \{\notemath{\nathrel{\naisebox\{0.5ex\}{\notemathsize$\{\llcorner\}$\}\%}}}
                  \kern-1.5ex\rightharpoonup}}}
             \fix, \ifp, ... ...
             861 \DeclareRobustCommand{\fix}
             862 {\mthfun{fix}}
             863 \DeclareRobustCommand{\ifp}
             864 {\mthfun{ifp}}
             865 \DeclareRobustCommand{\lfp}
             866 {\mthfun{lfp}}
             867 \DeclareRobustCommand{\gfp}
                {\mthfun{gfp}}
             \Aomega, \AOmega
             870 \DeclareRobustCommand{\Aomega}
                {\mthargset{\omega}}
             872 \DeclareRobustCommand{\AOmega}
             873 {\mthargset{\Omega}}
```

```
\Atheta, \ATheta ...
                  874 \DeclareRobustCommand{\Atheta}
                  875 {\mthargset{\theta}}
                  876 \DeclareRobustCommand{\ATheta}
                  877 {\mthargset{\Theta}}
 \Aomicron, ... ...
                  878 \DeclareRobustCommand{\Aomicron}
                  879 {\mthargset{\omicron}}
                  880 \label{lem:bustCommand} $$80 \label{lem:bustCommand} \AOmicron $$
                  881 {\mthargset{\Omicron}}
                  \SetB ...
                  883 \DeclareRobustCommand{\SetB}
                  884 {\mthset[mathbb]{B}}
          \SetF ...
                  885 \DeclareRobustCommand{\SetF}
                  886 {\mthset[mathbb]{F}}
     \SetN, ... ...
                  887 \DeclareRobustCommand{\SetN}
                  888 {\mthset[mathbb]{N}}
                  889 \DeclareRobustCommand{\SetNI}[1][]
                  890 {\SetN[\infty #1]}
     \SetZ, ... ...
                  891 \DeclareRobustCommand{\SetZ}
                  892 {\mthset[mathbb]{Z}}
                  893 \DeclareRobustCommand{\SetZI}[1][]
                  894 {\SetZ[\pm\infty #1]}
                  895 \DeclareRobustCommand{\SetZPI}[1][]
                  896 {\SetZ[+\infty #1]}
                  897 \DeclareRobustCommand{\SetZNI}[1][]
                  898 {\SetZ[-\infty #1]}
     \SetQ, ... ...
                  899 \DeclareRobustCommand{\SetQ}
                  900 {\mthset[mathbb]{Q}}
                  901 \DeclareRobustCommand{\SetQI}[1][]
                  902 {\SetQ[\pm\infty #1]}
                  903 \DeclareRobustCommand{\SetQPI}[1][]
                  904 {\SetQ[+\infty #1]}
                  905 \DeclareRobustCommand{\SetQNI}[1][]
                  906 {\SetQ[-\infty #1]}
     \SetR, ... ...
                  907 \DeclareRobustCommand{\SetR}
                  908 {\mthset[mathbb]{R}}
                  909 \DeclareRobustCommand{\SetRI}[1][]
                  910 {\SetR[\pm\infty #1]}
                  911 \DeclareRobustCommand{\SetRPI}[1][]
                  912 {\SetR[+\infty #1]}
                  913 \DeclareRobustCommand{\SetRNI}[1][]
                  914 {\SetR[-\infty #1]}
     \SetC, ... ...
                  915 \DeclareRobustCommand{\SetC}
                  916 {\mthset[mathbb]{C}}
                  917 \DeclareRobustCommand{\SetCI}[1][]
                  918 {\SetC[\infty #1]}
```

```
\num, ... ...
              920 \DeclareRobustCommand{\num}[1]
              921
                 {\mth{[#1]}}
              922 \DeclareRobustCommand{\numcc}[2]
              923 {\mth{[\argsep{#1}{,}{#2}]}}
              924 \DeclareRobustCommand{\numco}[2]
                 {\mth{[\argsep{#1}{,}{#2})}}
              926 \DeclareRobustCommand{\numoc}[2]
              927 {\mth{(\argsep{#1}{,}{#2}]}}
              928 \DeclareRobustCommand{\numoo}[2]
                  {\mth{(\argsep{#1}{,}{#2}))}}
              \floor, \ceil
              931 \DeclareRobustCommand{\floor}[1]
              932 {\mth{\argmid{\left\lfloor}{#1}{\right\rfloor}}}
              933 \DeclareRobustCommand{\ceil}[1]
                 {\mth{\argmid{\left\lceil}{#1}{\right\rceil}}}
              \arg ...
              936 \DeclareRobustCommand{\arg}
              937 {\mthfun{arg}}
    \evn, \odd ...
              938 \DeclareRobustCommand{\evn}
              939 {\mthfun{evn}}
              940 \DeclareRobustCommand{\odd}
              941 {\mthfun{odd}}
    \bst, ... ...
              942 \DeclareRobustCommand{\bst}
              943 {\mthfun{bst}}
              944 \DeclareRobustCommand{\argbst}
              945 {\mthfun{arg bst}}
\min, \max, ... ...
              946 \DeclareRobustCommand{\min}
              947 {\bf min}
              948 \DeclareRobustCommand{\max}
              949 {\bf mthfun\{max\}}
              950 \DeclareRobustCommand{\argmin}
                 {\mthfun{arg min}}
              952 \DeclareRobustCommand{\argmax}
                 {\mthfun{arg max}}
    \inf, \sup
              954 \DeclareRobustCommand{\inf}
              955 {\bf \{mthfun\{inf\}}
              956 \DeclareRobustCommand{\sup}
              957 {\bf \{mthfun\{sup\}}\}
              \emptyseq ...
              959 \DeclareRobustCommand{\emptyseq}
              960 {\bf \{nth\{varepsilon\}}\}
```

```
\fst, \lst ...
              961 \verb|\DeclareRobustCommand{\fst}|
              962 {\mthargfun{fst}}
              963 \DeclareRobustCommand{\lst}
              964 {\mathbf{t}}
              965 \fi
              970 \ifcom@
\defcomcls ... to do!
                • \defcomcls{CompClass};
                   \CompClass[sub][sup][ext] = COMPCLASS_{SUB}^{SUP}EXT
                   \CoCompClass[sub][sup][ext] = CoCompClass_{SUB}^{SUP}EXT
                   \CompClassE[sub][sup][ext] = COMPCLASS-EASY_{SUB}^{SUP}EXT
                   \verb|\CoCompClassE[sub][sup][ext]| = CoCompClass-Easy_{SUB}^{SUP}EXT|
                   \CompClassH[sub][sup][ext] = COMPCLASS-HARD_{SUB}^{SUP}EXT
                   \verb|\CoCompClassH[sub][sup][ext]| = CoCompClass-Hard_{Sup}^{SUP}EXT
                   \verb|\CompClassC[sub][sup][ext]| = CompClass-complete_{SUB}^{SUP}EXT
                   \CoCompClassC[sub][sup][ext] = CoCompClass-CompLete_{SUB}^{SUP}EXT
                  \verb|\NCompClass[sub][sup][ext]| = NCOMPCLASS^{SUP}_{SUB}EXT
                  \verb|\ConCompClass[sub][sup][ext]| = ConCompClass_{SUB}^{SUP}EXT
                  \verb|\NCompClassE[sub][sup][ext]| = NCompClass-Easy_{SUB}^{SUP}EXT|
                  \verb|\ConCompClassE[sub][sup][ext]| = ConCompClass-Easy_{SUB}^{SUP}EXT
                  \verb|\NCompClassH[sub][sup][ext]| = NCompClass-Hard_{SUB}^{SUP}EXT
                   \ConCompClassH[sub][sup][ext] = ConCompClass-Hard_{SUB}^{SUP}EXT
                   \label{eq:ncompClassC} $$\N{\compClassC[sub][sup][ext]} = N{\ccompClass-compLete}_{SUB}^{SUP}{\ccompClassC[sub][sup][ext]} = N{\ccompClassC[sub][sup][ext]} 
                   \verb|\ConCompClassC[sub][sup][ext]| = ConCompClass-complete_{sur}^{SUP}EXT
                  \UCompClass[sub][sup][ext] = UCompClass_{SUB}^{SUP}EXT
                  \texttt{CoUCompClass[sub][sup][ext]} = \texttt{CoUCompClass}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{EXT}
                  \UCompClassE[sub][sup][ext] = UCompClass-Easy_{SUB}^{SUP}EXT
                  \Coulomb Class E[sub][sup][ext] = Coulomb Class-Easy_{SUB}^{SUP}EXT
                  \verb|VCompClassH[sub][sup][ext]| = UCOMPCLASS-HARD_{SUB}^{SUP}EXT
                  \verb|\CoUCompClassH[sub][sup][ext]| = CoUCompClass-Hard_{SUB}^{SUP}EXT
                   \label{eq:UCompClassC} $$\UCompClassC[sub][sup][ext] = UCompClass-Complete_{SUB}^{SUP}EXT$
                  \verb|\CoUCompClassC[sub][sup][ext]| = CoUCOMPCLASS-COMPLETE_{SUB}^{SUP}EXT
                  \triangle CompClass[sub][sup][ext] = ACOMPCLASS_{SUB}^{SUP}EXT
                   \verb|\CoACompClass[sub][sup][ext]| = CoACompClass_{SUB}^{SUP}EXT
                   \verb|\ACompClassE[sub][sup][ext]| = ACOMPCLASS-EASY_{SUB}^{SUP}EXT
                   \verb|\CoACompClassE[sub][sup][ext]| = CoACompClass-Easy_{SUB}^{SUP}EXT
                   \ACompClassH[sub][sup][ext] = ACOMPCLASS-HARD_{SUB}^{SUP}EXT
                   \CoACompClassH[sub][sup][ext] = CoACompClass-Hard_{SUB}^{SUP}EXT
                   \triangle CompClassC[sub][sup][ext] = ACOMPCLASS-COMPLETE_{SUB}^{SUP}EXT
                   \verb|\CoACompClassC[sub][sup][ext]| = CoACompClass-complete_{SUB}^{SUP}EXT
                 \defcomcls{CompClass}[NewClass];
                   \CompClass[sub][sup][ext] = NewClass_{Sub}^{SUP}EXT
                   \verb|\CoCompClass[sub][sup][ext]| = CoNewClass_{SUB}^{SUP}EXT
                   \CompClassE[sub][sup][ext] = NewClass-easy_{Sub}^{SUP}EXT
                   \CoCompClassE[sub][sup][ext] = CoNewClass-Easy_{SUB}^{SUP}EXT
                   \CompClassH[sub][sup][ext] = NewClass-Hard_{SUB}^{SUP}EXT
                   \verb|\CoCompClassH[sub][sup][ext]| = CoNewClass-Hard_{Sur}^{SUP}EXT
                   \verb|\CompClassC[sub][sup][ext]| = NewClass-complete_{SUB}^{SUP}EXT
                   \verb|\CoCompClassC[sub][sup][ext]| = CoNewClass-complete_{SUB}^{SUP}EXT
                   \N{\c CompClass[sub][sup][ext]} = NN{\c EWCLASS}_{SUB}^{SUP}{\c EXT}
                   \verb|\CoNCompClass[sub][sup][ext]| = CoNNewClass_{SUB}^{SUP}EXT
```

```
\verb|\CoNCompClassE[sub][sup][ext]| = CoNNewClass-Easy_{SUB}^{SUP}EXT|
                          \verb|\NCompClassH[sub][sup][ext]| = NNEWCLASS-HARD_{SUB}^{SUP}EXT
                          \verb|\ConCompClassH[sub][sup][ext]| = ConNewClass-Hard_{SUB}^{SUP}EXT
                          \verb|\NCompClassC[sub][sup][ext]| = NNEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \ConCompClassC[sub][sup][ext] = ConNewClass-CompLete_{Sub}^{SUP}Ext
                          \verb|\UCompClass[sub][sup][ext]| = UNEWCLASS^{SUP}_{SUB}EXT
                          \verb|\CoUCompClass[sub][sup][ext]| = CoUNEWCLASS_{SUB}^{SUP}EXT
                          \verb|\UCompClassE[sub][sup][ext]| = UNEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\CoUCompClassE[sub][sup][ext]| = CoUNEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\UCompClassH[sub][sup][ext]| = UNEWCLASS-HARD_{SUB}^{SUP}EXT
                          \Coulomb ClassH[sub][sup][ext] = CoUNEW CLASS-HARD_{SUR}^{SUP}EXT
                          \UCompClassC[sub][sup][ext] = UNEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \verb|\CoUCompClassC[sub][sup][ext]| = CoUNewClass-Complete_{SUB}^{SUP}EXT
                          \triangle CompClass[sub][sup][ext] = ANEWCLASS_{SUB}^{SUP}EXT
                          \CoACompClass[sub][sup][ext] = CoANEWCLASS_{SUB}^{SUP}EXT
                          \triangle CompClassE[sub][sup][ext] = ANEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\CoACompClassE[sub][sup][ext]| = CoANewClass-easy_{sup}^{SUP}EXT
                          \Lambda CompClassH[sub][sup][ext] = ANEWCLASS-HARD_{SUB}^{SUP}EXT
                          \verb|\CoACompClassH[sub][sup][ext]| = CoANewClass-Hard_{SUB}^{SUP}EXT
                          \verb|\ACompClassC[sub][sup][ext]| = ANEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \CoACompClassC[sub][sup][ext] = CoANewClass-CompLete_{Sup}^{SUP}EXT
                     971 \newcommandx{\defcomcls}[2][2=]
                          {\defcomclssem{#1}{\defval{#2}{#1}}%
                           \displaystyle \operatorname{defcomclssem}\{\#1\}\{\operatorname{defval}\{\#2\}\{\#1\}\}[Co]\}
                     973
                     974 \newcommandx{\defcomclssem}[3][3=]
                     975
                         {\defcomclsred{#3#1}{#2}[#3]%
                          \defcomclsred{#3N#1}{#2}[#3N]%
                          \defcomclsred{#3U#1}{#2}[#3U]%
                          \defcomclsred{#3A#1}{#2}[#3A]}
                     979 \newcommandx{\defcomclsred}[3][3=]
                          {\defcomclscmd{#1}{#2}[#3]%
                          \defcomclscmd{#1E}{#2}[#3][-easy]%
                     981
                          \defcomclscmd{#1H}{#2}[#3][-hard]%
                     982
                          \defcomclscmd{#1C}{#2}[#3][-complete]}%
                     984 \newcommandx{\defcomclscmd}[4][3=, 4=]
                          {\csdef{#1}{\txtcom{#3#2#4}}}
       \defcomhrc ... to do!
                        • \defcomhrc{CompHierarchy};
                          CompHierarchy[sub][sup][ext] = COMPHIERARCHY<sup>SUP</sup><sub>SUB</sub>EXT
                        • \defcomhrc{CompHierarchy} [NewHierarchy];
                          CompHierarchy[sub][sup][ext] = NEWHIERARCHY_{SUB}^{SUP}EXT
                     986 \newcommandx{\defcomhrc}[2][2=]
                          {\csdef{#1}{\txtcom{\defval{#2}{#1}}}}
                     \Easy, \Hard, ...
                     989 \cmdtxtcom{Easy}
                     990 \cmdtxtcom{Hard}
                     991 \cmdtxtcom{Complete}
                     • Time[sub][sup][ext] = TIME_{SUB}^{SUP}EXT
       \Time, ...
                          \verb|\TimeE[sub][sup][ext]| = TIME-EASY_{SUR}^{SUP}EXT
                          TimeH[sub][sup][ext] = TIME-HARD_{SUB}^{SUP}EXT
                          TimeC[sub][sup][ext] = TIME-COMPLETE_{SUB}^{SUP}EXT
```

 $\NCompClassE[sub][sup][ext] = NNEWCLASS-EASY_{SUB}^{SUP}EXT$

```
\verb| NTimeC[sub][sup][ext] = NTime-complete | Sup | Su
                                       \UTimeE[sub][sup][ext] = UTIME-EASY_{SUB}^{SUP}EXT
                                          \verb|\UTimeH[sub][sup][ext]| = UTime-Hard_{SUB}^{SUP}EXT
                                          \verb| UTimeC[sub][sup][ext] = UTime-complete_{sub}^{sup}Ext
                                       • ATime[sub][sup][ext] = ATIME_{SUB}^{SUP}EXT
                                           \verb| ATimeE[sub][sup][ext]| = ATime-EASY_{SUB}^{SUP}EXT|
                                           \Delta TimeH[sub][sup][ext] = ATIME-HARD_{SUB}^{SUP}EXT
                                          \verb| ATimeC[sub][sup][ext] = ATIME-COMPLETE_{SUB}^{SUP}EXT|
                                  993 \defcomcls{Time}
      \Space, ...
                                       \verb|\SpaceE[sub][sup][ext]| = SPACE-EASY_{SUB}^{SUP}EXT
                                           \SpaceH[sub][sup][ext] = SPACE-HARD_{SUB}^{SUP}EXT
                                           \SpaceC[sub][sup][ext] = SPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • \NSpace[sub][sup][ext] = NSPACE_{SUB}^{SUP}EXT
                                          \verb|\NSpaceE[sub][sup][ext]| = NSPACE-EASY_{SUB}^{SUP}EXT
                                           \NSpaceH[sub][sup][ext] = NSPACE-HARD_{SUB}^{SUP}EXT
                                           \NSpaceC[sub][sup][ext] = NSPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • USpace[sub][sup][ext] = USPACE_{SUB}^{SUP}EXT
                                           \USpaceE[sub][sup][ext] = USPACE-EASY_{SUB}^{SUP}EXT
                                           \verb|\USpaceH[sub][sup][ext]| = USpace-Hard_{Sub}^{SUP}EXT
                                           \USpaceC[sub][sup][ext] = USPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • ASpace[sub][sup][ext] = ASPACE_{SUB}^{SUP}EXT
                                           \verb|\ASpaceE[sub][sup][ext]| = ASPACE-EASY_{SUB}^{SUP}EXT
                                           \verb|\ASpaceH[sub][sup][ext]| = ASPACE-HARD_{SUB}^{SUP}EXT
                                          ASpaceC[sub][sup][ext] = ASPACE-COMPLETE_{SUB}^{SUP}EXT
                                  994 \defcomcls{Space}
 \LogTime, ...
                                       • \lfloor LogTime[sub][sup][ext] = LogTime_{Sub}^{Sup}EXT
                                          \lceil LogTimeE[sub][sup][ext] = LogTime-Easy_{Sub}^{SUP}EXT
                                          LogTimeH[sub][sup][ext] = LogTime-Hard_{Sub}^{Sup}EXT
                                          \verb|\LogTimeC[sub][sup][ext]| = LogTime-complete_{sup}^{SUP}EXT|
                                       • NLogTime[sub][sup][ext] = NLogTime_{SUP}^{SUP}EXT
                                           \NLogTimeE[sub][sup][ext] = NLogTime-EASY_{SUB}^{SUP}EXT
                                           \NLogTimeH[sub][sup][ext] = NLogTime-HARD_{SUB}^{SUP}EXT
                                          \label{eq:NLogTimeC} $$\NLogTimeC[sub][sup][ext] = NLogTime-COMPLETE_{SUB}^{SUP}EXT$
                                       • \ULogTime[sub][sup][ext] = ULogTime_{SUB}^{SUP}EXT
                                          \ULogTimeE[sub][sup][ext] = ULogTime-EASY_{SUB}^{SUP}EXT
                                           \ULogTimeH[sub][sup][ext] = ULogTime-Hard_{Sub}^{SUP}EXT
                                          \ULogTimeC[sub][sup][ext] = ULogTIME-COMPLETE_{SUB}^{SUP}EXT
                                       • ALogTime[sub][sup][ext] = ALogTime_{SUB}^{SUP}EXT
                                          \verb|\ALogTimeE[sub][sup][ext]| = ALogTime-Easy_{SUB}^{SUP}EXT
                                          \Lambda = ALogTimeH[sub][sup][ext] = ALogTime-Hard_{Sup}^{SUP}EXT
                                          ALogTimeC[sub][sup][ext] = ALogTime-Complete_{Sub}^{SUP}EXT
                                 995 \defcomcls{LogTime}
                                        \bullet \  \  \, \texttt{LogSpace[sub][sup][ext]} = \mathrm{LogSpace}^{SUP}_{SUB} EXT \\
\LogSpace, ...
                                          \verb|\LogSpaceE[sub][sup][ext]| = LogSpace-Easy_{SUB}^{SUP}EXT
                                          LogSpaceH[sub][sup][ext] = LogSpace-Hard_{Sub}^{SUP}EXT
                                          LogSpaceC[sub][sup][ext] = LogSpace-Complete_{Sub}^{SUP}EXT
                                       \NLogSpaceE[sub][sup][ext] = NLogSpace-Easy_{SUB}^{SUP}EXT
                                           \verb|\NLogSpaceH[sub][sup][ext]| = NLogSpace-hard_{SUB}^{SUP}EXT
                                          \NLogSpaceC[sub][sup][ext] = NLogSpace-Complete_{SUB}^{SUP}EXT
```

• $\NTime[sub][sup][ext] = NTIME_{SUB}^{SUP}EXT$

 $\label{eq:NTimeEsub} $$ [\sup] [ext] = NTIME-EASY_{SUB}^{SUP} EXT $$ NTIMEH[sub] [sup] [ext] = NTIME-HARD_{SUB}^{SUB} EXT $$ Extra $$ NT$

• \ALogSpace[sub][sup][ext] = ALogSpace_Sup_EXT $\verb|\ALogSpaceE[sub][sup][ext]| = ALogSpace-easy_{\text{\tiny SUP}}^{\text{SUP}} EXT$ $\verb|\ALogSpaceH[sub][sup][ext]| = ALogSpace-hard_{SUB}^{SUP}EXT$ $\verb|\ALogSpaceC[sub][sup][ext]| = ALogSpace-complete_{SUB}^{SUP}EXT$ 996 \defcomcls{LogSpace} \PTime, ... • \P [sub] [sup] [ext] = $PTIME_{SUB}^{SUP}EXT$ \PTimeE[sub][sup][ext] = PTIME-EASY_SUP_EXT \P \PTimeH[sub][sup][ext] = \PTIME-HARD_SUP_SUP_EXT \PTimeC[sub][sup][ext] = PTIME-COMPLETE_SUP_EXT $\verb|\NPTimeE[sub][sup][ext]| = NPTIME-EASY_{SUB}^{SUP}EXT$ $\verb|\NPTimeH[sub][sup][ext]| = NPTIME-HARD_{SUB}^{SUP}EXT$ $\NPTimeC[sub][sup][ext] = NPTIME-COMPLETE_{SUB}^{SUP}EXT$ • $\UPTime[sub][sup][ext] = UPTIME_{SUB}^{SUP}EXT$ $\UPTimeE[sub][sup][ext] = UPTIME-EASY_{SUP}^{SUP}EXT$ $\label{eq:uptimeH} $$ \UPTimeH[sub][sup][ext] = UPTIME-HARD_{SUB}^{SUP}EXT $$$ $\UPTimeC[sub][sup][ext] = UPTIME-COMPLETE_{SUB}^{SUP}EXT$ $\bullet \ \ \texttt{APTime[sub][sup][ext]} = APTIME^{SUP}_{SUB}EXT$ $\label{eq:aptimeEsub} $$ \Delta PTimeE[sub][sup][ext] = APTIME-EASY_{SUB}^{SUP}EXT $$$ $\verb| APTimeH[sub][sup][ext] = APTIME-HARD_{SUB}^{SUP}EXT$ $\APTimeC[sub][sup][ext] = APTIME-COMPLETE_{SUB}^{SUP}EXT$ 997 \defcomcls{PTime} • $\PSpace[sub][sup][ext] = PSPACE_{SUB}^{SUP}EXT$ \PSpace, ... $\verb|\PSpaceE[sub][sup][ext]| = PSPACE-EASY_{SUB}^{SUP}EXT$ $\label{eq:pspaceH} $$ \PSpaceH[sub][sup][ext] = PSpace-Hard_{Sub}^{SUP}EXT$ $\label{eq:pspaceC} $$ \PSpaceC[sub][sup][ext] = PSpace-Complete_{SUB}^{SUP}EXT $$ • $\NPSpace[sub][sup][ext] = NPSPACE_{SUB}^{SUP}EXT$ $\verb|NPSpaceE[sub][sup][ext]| = NPSPACE-EASY_{SUB}^{SUP}EXT|$ $\NPSpaceH[sub][sup][ext] = NPSPACE-HARD_{SUB}^{SUP}EXT$ $\verb|\NPSpaceC[sub][sup][ext]| = NPSPACE-COMPLETE_{SUB}^{SUP}EXT$ • \UPSpace[sub][sup][ext] = UPSPACE_SUP_EXT $\verb|VPSpaceE[sub][sup][ext]| = UPSPACE-EASY_{SUB}^{SUP}EXT|$ $\UPSpaceH[sub][sup][ext] = UPSpace-HARD_{SUB}^{SUP}EXT$ $\verb|VPSpaceC[sub][sup][ext]| = UPSPACE-COMPLETE^{SUP}_{SUB}EXT$ • $APSpace[sub][sup][ext] = APSPACE_{SUB}^{SUP}EXT$ $\verb|\APSpaceE[sub][sup][ext]| = APSPACE-EASY_{SUB}^{SUP}EXT$ $APSpaceH[sub][sup][ext] = APSPACE-HARD_{SUB}^{SUP}EXT$ $APSpaceC[sub][sup][ext] = APSPACE-COMPLETE_{SUB}^{SUP}EXT$ 998 \defcomcls{PSpace} • $\QPTime[sub][sup][ext] = QPTIME_{SUB}^{SUP}EXT$ \QPTime, ... $\label{eq:QPTimeEsub} $$ \PTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_$ $\verb|\QPTimeH[sub][sup][ext]| = \mathrm{QPTIME-HARD}^{SUP}_{SUB}\mathrm{EXT}|$ $\QPTimeC[sub][sup][ext] = QPTIME-COMPLETE_{SUB}^{SUP}EXT$ • $\NQPTime[sub][sup][ext] = NQPTIME_{SUB}^{SUP}EXT$ $\verb|\NQPTimeE[sub][sup][ext]| = NQPTIME-EASY_{SUB}^{SUP}EXT|$ $\verb|\NQPTimeH[sub][sup][ext]| = NQPTIME-HARD_{SUB}^{SUP}EXT$ $\verb|\NQPTimeC[sub][sup][ext]| = NQPTIME-COMPLETE_{SUB}^{SUP}EXT|$ • $\UQPTime[sub][sup][ext] = UQPTIME_{SUB}^{SUP}EXT$ $\verb|VQPTimeE[sub][sup][ext]| = UQPTIME-EASY_{SUB}^{SUP}EXT$ $\verb|VQPTimeH[sub][sup][ext]| = \mathrm{UQPTIME-HARD}^{SUP}_{SUB}\mathrm{EXT}$ $\label{eq:uqptimec} $$ \UQPTimeC[sub][sup][ext] = UQPTIME-COMPLETE_{SUB}^{SUP}EXT $$$

• \ULogSpace[sub][sup][ext] = ULogSpace_Sup_EXT

 $\label{eq:logspace} $$ \U\log PACE-EASY_{SUB}^{SUP} = ULOGSPACE-EASY_{SUB}^{SUP} = ULOGSPACE-HARD_{SUB}^{SUP} = ULOGSPACE-HARD_{SUB}^{SUP} = ULOGSPACE-COMPLETE_{SUB}^{SUP} = ULOGSPACE-COMPLETE_{SUB}^$

```
\verb|\AQPTimeE[sub][sup][ext]| = \mathrm{AQPTIME\text{-}EASY}^{SUP}_{SUB}\mathrm{EXT}|
                           \verb| AQPTimeH[sub][sup][ext] = AQPTIME-HARD_{SUB}^{SUP}EXT
                           \verb| AQPTimeC[sub][sup][ext] = AQPTIME-COMPLETE_{SUB}^{SUP}EXT
                      999 \defcomcls{QPTime}
 \QPSpace, ...
                         • \QPSpace[sub][sup][ext] = QPSPACE_{SUB}^{SUP}EXT
                           \verb|\QPSpaceE[sub][sup][ext]| = QPSpace-easy_{Sub}^{Sup}ext|
                           \verb|\QPSpaceH[sub][sup][ext]| = QPSPACE-HARD_{SUB}^{SUP}EXT|
                           \label{eq:QPSpaceCsub} $$ \QPSpaceC[sub][sup][ext] = QPSpace-COMPLETE_{SUB}^{SUP}EXT $$
                         • \NQPSpace[sub][sup][ext] = NQPSPACE_{SUB}^{SUP}EXT
                           \NQPSpaceE[sub][sup][ext] = NQPSPACE-EASY_{SUB}^{SUP}EXT
                           \NQPSpaceH[sub][sup][ext] = NQPSPACE-HARD_{SUP}^{SUP}EXT
                           \NQPSpaceC[sub][sup][ext] = NQPSPACE-COMPLETE_{SUB}^{SUP}EXT
                         \verb|VQPSpaceE[sub][sup][ext]| = UQPSPACE-EASY_{SUB}^{SUP}EXT|
                           \verb|VQPSpaceH[sub][sup][ext]| = UQPSPACE-HARD_{SUB}^{SUP}EXT
                           \UQPSpaceC[sub][sup][ext] = UQPSPACE-COMPLETE_{SUB}^{SUP}EXT
                         • AQPSpace[sub][sup][ext] = AQPSPACE_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceE[sub][sup][ext]| = AQPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceH[sub][sup][ext]| = AQPSPACE-HARD_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceC[sub][sup][ext]| = \mathrm{AQPSPACE\text{-}COMPLETE}^{SUP}_{SUB}\mathrm{EXT}|
                     1000 \defcomcls{QPSpace}
 \ExpTime, ...
                         • \text{ExpTime[sub][sup][ext]} = \text{EXPTIME}_{\text{SUB}}^{\text{SUP}} \text{EXT}
                           \verb|\ExpTimeE[sub][sup][ext]| = EXPTIME-EASY_{SUB}^{SUP}EXT
                           \texttt{ExpTimeH[sub][sup][ext]} = \texttt{ExpTime-HARD}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{Ext}
                           \texttt{ExpTimeC[sub][sup][ext]} = \texttt{ExpTime-complete}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{Ext}
                         • NExpTime[sub][sup][ext] = NEXPTIME_{SUB}^{SUP}EXT
                           \verb|\NExpTimeE[sub][sup][ext]| = NEXPTIME-EASY_{SUB}^{SUP}EXT
                           \NExpTimeH[sub][sup][ext] = NEXPTIME-HARD_{SUB}^{SUP}EXT
                           \NExpTimeC[sub][sup][ext] = NEXPTIME-COMPLETE_{SUB}^{SUP}EXT
                         • \UExpTime[sub][sup][ext] = UEXpTIME_{SUB}^{SUP}EXT
                           \UExpTimeE[sub][sup][ext] = UEXPTIME-EASY_{SUB}^{SUP}EXT
                           \UExpTimeH[sub][sup][ext] = UExpTIME-HARD_{SUB}^{SUP}EXT
                           \verb|\UExpTimeC[sub][sup][ext]| = UEXPTIME-COMPLETE^{SUP}_{SUR}EXT|
                         • \AExpTime[sub][sup][ext] = AExpTime_SUP_EXT
                           \texttt{AExpTimeE[sub][sup][ext]} = AEXPTIME-EASY_{SUB}^{SUP}EXT
                           \Delta ExpTimeH[sub][sup][ext] = AEXPTIME-HARD_{SUB}^{SUP}EXT
                           \verb|\AExpTimeC[sub][sup][ext]| = AEXPTIME-COMPLETE_{SUB}^{SUP}EXT
                     1001 \defcomcls{ExpTime}
                         • \ExpSpace[sub][sup][ext] = ExpSpace_{SUB}^{SUP}EXT
\ExpSpace, ...
                           \verb|\ExpSpaceE[sub][sup][ext]| = EXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\ExpSpaceH[sub][sup][ext]| = ExpSpace-Hard_{SUB}^{SUP}EXT
                           \ExpSpaceC[sub][sup][ext] = ExpSpace-CompleteSup_Ext
                         • \NExpSpace[sub][sup][ext] = NEXPSPACE_{SUB}^{SUP}EXT
                           \NExpSpaceE[sub][sup][ext] = NEXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\NExpSpaceH[sub][sup][ext]| = NEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \NExpSpaceC[sub][sup][ext] = NEXpSpace-COMPLETE_{SUB}^{SUP}EXT
                         • \UExpSpace[sub][sup][ext] = UExpSpace_{SUB}^{SUP}EXT
                           \verb|\UExpSpaceE[sub][sup][ext]| = UEXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\UExpSpaceH[sub][sup][ext]| = UEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \UExpSpaceC[sub][sup][ext] = UExpSpace-Complete_{SUB}^{SUP}EXT
                         \bullet \ \texttt{\AExpSpace[sub][sup][ext]} = AExpSpace[sub][sup][ext] = AExpSpace[sub][sup][ext]
                           \texttt{AExpSpaceE[sub][sup][ext]} = \text{AExpSpace-Easy}^{\text{SUP}}_{\text{SUB}} \text{EXT}
                           \verb|\AExpSpaceH[sub][sup][ext]| = AEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \texttt{AExpSpaceC[sub][sup][ext]} = \text{AExpSpace-complete}_{\text{SUB}}^{\text{SUP}} \text{Ext}
```

1002 \defcomcls{ExpSpace}

• $AQPTime[sub][sup][ext] = AQPTIME_{SUB}^{SUP}EXT$

```
\PH
                                       • \PH[sub][sup][ext] = PH_{SUB}^{SUP}EXT
                                 1004 \defcomhrc{PH}
                                 1005 \fi
                                 1010 \ifgam@
                                 \SATG, ...
                                 1012 %% Satisfiability Games
                                 1013 \cmdtxtoparname{SATG}[Sat]
                                 1014
                                 1015 %% Validity Games
                                 1016 \cmdtxtoparname{VALG}[Val]
                                 1017
                                 1018 % Evaluation Games
                                 1019 \cmdtxtoparname{EVLG}[Ev1]
                                 1020
                                 1021 %% Synthesis Games
                                 1022 \cmdtxtoparname{SYNG}[Syn]
                                 1023
                                 1024 %% Model-Checking Games
                                 1025 \cmdtxtoparname{MCG} [MC]
                                 1026
                                 1027 %% Ehrenfeucht-Fraisse Games
                                 1028 \cmdtxtoparname{EFG}[EF]
                                 \PlrSym, \OppSym
                                 1030 \newcommand{\plrsym}{E}
                                 1031 \cmdmthsym{Plr}[\plrsym]
                                 1032 \newcommand{\oppsym}{A}
                                 1033 \cmdmthsym{Opp}[\oppsym]
 \ArenaName, ... ...
                                 1034 \newcommand{\arenaname}{A}
                                 1035 \usrmthlatupp{Arena}{Name}{name} [\arenaname]
       \PosSet, ... ...
                                 1036 \newcommand{\possym}{v}
                                 1037 \newcommand{\posset}{Ps}
                                 1038 \cmdmthsetext{Pos}[\posset][\possym]
                                 1039 \cmdmthsymelm{ipos}[\possym_{I}]
                                 1040 \cmdmthsymelm{fpos}[\possym_{F}]
                                 1041 \cmdmthset{PPos}[\posset_{\PlrSym}]
                                 1042 \verb|\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_{\possym_{\
                                 1043 \verb|\cmdmthset{OPos}[\posset_{\norm{NPSym}}]|
                                 1044 \cmdmthsymelm{opos}[\possym_{\0ppSym}]
                \PlrFun ...
                                 1045 \newcommand{\plrfun}{pl}
                                 1046 \cmdmthfun{plr}[\plrfun]
                \MovRel
                                 1047 \newcommand{\movrel}{Mv}
                                 1048 \cmdmthrel{Mov}[\movrel]
```

```
\GameName, ... ...
                                               1049 \mbox{ \newcommand{\gamename}{\Game}}
                                               1050 \ \tt [Name] \{name] [name] \ \tt [Name] [name] [name] \ \tt 
                        \WinSet
                                               1051 \newcommand{\winset}{Wn}
                                               1052 \mbox{ \cmdmthset{Win}[\winset]}
  \ObsSet, \obsFun
                                               1053 \newcommand{\obsset}{Ob}
                                               1054 \cmdmthset{Obs}[\obsset]
                                               1055 \cmdmthfun{obs}
                                               \PthSet, \pthFun
                                               1057 \newcommand{\pthsym}{\pi}
                                               1058 \newcommand{\pthset}{Pth}
                                               1059 \cmdmthsetext{Pth}[\pthset][\pthsym]
                                               1060 \cmdmthfun{pth}
            \HstSet, ...
                                              1061 \newcommand{\hstsym}{\rho}
                                               1062 \mbox{ \newcommand{\hstset}{Hst}}
                                               1063 \cmdmthsetext{Hst}[\hstset][\hstsym]
                                               1064 \cmdmthset{PHst}[\hstset_{\PlrSym}]
                                               1065 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
                                               1066 \cmdmthset{OHst}[\hstset_{\OppSym}]
                                               1067 \verb|\cmdmthsymelm{ohst}[\hstsym_{\coloredge m}]
                                               1068 \cmdmthfun{hst}
\PlaySet,\playFun
                                               1069 \newcommand{\playsym}{\pi}
                                               1070 \newcommand{\playset}{Play}
                                               1071 \cmdmthsetext{Play}[\playset][\playsym]
                                               1072 \cmdmthfun{play}
            \StrSet, ...
                                              1073 \newcommand{\strsym}{\sigma}
                                              1074 \newcommand{\strset}{Str}
                                               1075 \verb|\cmdmthsetext{Str}| [\verb|\strset|] [\|\strsym|]
                                               1076 \cmdmthset{PStr}[\strset_{\PlrSym}]
                                               1077 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
                                               1078 \verb|\cmdmthset{OStr}[\strset_{\oppSym}]|
                                               1079 \verb|\cmdmthsymelm{ostr}[\strsym_{\colored{OppSym}}]
  \PrfSet, \prfFun
                                               1080 \newcommand{\prfsym}{\xi}
                                               1081 \newcommand{\prfset}{Prf}
                                               1082 \cmdmthsetext{Prf}[\prfset][\prfsym]
  \preFun, \sucFun
                                               1083 \newcommand{\prefun}{pre}
                                               1084 \cmdmthoargfun{pre}[\prefun]
                                               1085 \newcommand{\sucfun}{suc}
                                               1086 \cmdmthoargfun{suc}[\sucfun]
  \entFun, \escFun
                                               1087 \newcommand{\entfun}{ent}
                                               1088 \cmdmthoargfun{ent}[\entfun]
                                               1089 \mbox{ \newcommand{\escfun}{esc}}
                                               1090 \cmdmthoargfun{esc}[\escfun]
```

```
\intFun, \outFun ...
               1091 \newcommand{\left\{ \inf \right\}}
               1092 \cmdmthoargfun{int}[\intfun]
               1093 \mbox{ \newcommand{\outfun}{out}}
               1094 \verb|\cmdmthoargfun{out}| [\verb|\outfun|]|
\atrFun, \rchFun ...
               1095 \newcommand{\atrfun}{atr}
               1096 \cmdmthoargfun{atr}[\atrfun]
               1097 \newcommand{\rchfun}{rch}
               1098 \cmdmthoargfun{rch}[\rchfun]
      \liftFun ...
               1099 \newcommand{\liftfun}{lift}
               1100 \cmdmthoargfun{lift}[\liftfun]
       \solFun ...
              1101 \newcommand{\solfun}{sol}
               1102 \cmdmthoargfun{sol}[\solfun]
               \BG, ... ...
              1104 %% Buchi Games
              1105 \cmdtxtoparname{BG}
               1106
               1107 %% Co-Buchi Games
               1108 \cmdtxtoparname{CG}
               1110 %% Parity Games
               1111 \cmdtxtoparname{PG}
               1112
               1113 %% Rabin Games
               1114 \cmdtxtoparname{RG}
               1116 %% Streett Games
               1117 \cmdtxtoparname{SG}
               1118
               1119 %% Muller Games
               1120 \cmdtxtoparname{MG}
               \EvnSym, \OddSym
               1122 \mbox{ } \mbox{newcommand{\evnsym}{0}}
               1123 \cmdmthsym{Evn}[\evnsym]
               1124 \mbox{ } \mbox{newcommand{\oddsym}{1}}
               1125 \cmdmthsym{Odd}[\oddsym]
\PrtSet, \prtFun ...
               1126 \newcommand{\prtsym}{p}
               1127 \newcommand{\prtset}{Pr}
               1128 \cmdmthsetext{Prt}[\prtset][\prtsym]
               1129 \cmdmthfun{prt}[pr]
               \EG, ... ...
               1132 %% Energy Games
```

1133 \cmdtxtoparname{EG}

```
1134
                                 1135 %% Mean-Payoff Games
                                 1136 \cmdtxtoparname{MPG}
                                 1138 %% Discounted-Payoff Games
                                 1139 \cmdtxtoparname{DPG}
                                 \MaxSym, \MinSym
                                 1141 \newcommand{\maxsym}{\oplus}
                                 1142 \cmdmthsym{Max}[\maxsym]
                                 1143 \newcommand{\minsym}{\boxminus}
                                 1144 \cmdmthsym{Min}[\minsym]
\WghSet, \wghFun
                                1145 \mbox{ } \mbox{newcommand{\wghsym}{w}}
                                 1146 \newcommand{\wghset}{Wg}
                                 1147 \cmdmthsetext{Wgh} [\wghset] [\wghsym]
                                 1148 \cmdmthfun{wgh} [wg]
                                 1150 \fi
                                 1155 \iflog@
                                 \BF, \QBF, ... ...
                                1157 % Boolean Formulae
                                1158 \cmdtxtoparname{BF}
                                1160 % Quantified Boolean Formulae
                                1161 \DeclareRobustCommand{\QBF}
                                          {\{\text{txtname}\{Q\}\}\setminus BF\}}
                                 1163 \DeclareRobustCommand{\EBF}
                                          {\ensuremath{\exists}\BF}
                                 1165 \DeclareRobustCommand{\UBF}
                                          {\ensuremath{\forall}\BF}
                                 \LogSig, ... ...
                                 1168 \mbox{ \newcommand{\logsig}{L}}
                                1169 \usrmthlatupp{Log}{Sig}{sig}[\logsig]
              \Tt, \Ff ...
                                 1170 \mbox{ } \mbox
                                 1171 \usrmth{Tt}{}{sym}[\ttsym]
                                 1172 \mbox{newcommand{\ffsym}{\bot}}
                                1173 \usrmth{Ff}{}{sym}[\ffsym]
       \LNeg, \LNot ...
                                 1174 \newcommand{\lnegsym}{\neg}
                                 1175 \usrmth{LNeg}{}{luop}[\lnegsym]
                                 1176 \newcommand{\lnotsym}{\sim}
                                 1177 \usrmth{LNot}{}{luop}[\lnotsym]
```

```
\LCon, \LDis ...
                                            1178 \mbox{newcommand{\lconsym}{\land}}
                                            1179 \usrmth{LCon}{}{lbop}[\lconsym]
                                            1180 \mbox{ }\mbox{\command{\ldissym}{\lor}}
                                            1181 \usrmth{LDis}{}{lbop}[\ldissym]
         \LImp, \LCoi
                                            1182 \newcommand{\limpsym}{\leftrightarrow}
                                            1183 \usrmth{LImp}{}{lbop}[\limpsym]
                                            1184 \newcommand{\lcoisym}{\rightarrow}
                                            1185 \usrmth{LCoi}{}{lbop}[\lcoisym]
         \LExs, \LAll ...
                                           1186 \newcommand{\lexssym}{\exists}
                                            1187 \usrmth{LExs}{}{luop}[\lexssym]
                                            1188 \newcommand{\lallsym}{\forall}
                                            1189 \usrmth{LAll}{}{luop}[\lallsym]
            \APSet, ... ...
                                           1190 \newcommand{\apsym}{p}
                                            1191 \newcommand{\apset}{AP}
                                            1192 \cmdmthsetext{AP}[\apset][\apsym]
                                            1193 \cmdmthfun{ap}\usrmth{ap}{}{argfun}
                             \sub ...
                                            1194 \usrmth{sub}{}{argfun}
\Cnt, \Qnt, \Sym ...
                                            1195 \usrmth{Cnt}{}{sym}[C]
                                            1196 \usrmth{Qnt}{}{sym}[Q]
                                            1197 \space{2mm} 1197 \space{2mm} {\rm Sym} {\rm sym} [\odot]
               \QAE, \QEA ...
                                            1198 \usrmth{QAE}{}{sym}[\forall\exists]
                                            1199 \usrmth{QEA}{}{sym}[\exists\forall]
         \QntSet, ... ...
                                            1200 \mbox{ } \mbox{newcommand{\qntsym}{\wp}}
                                            1201 \newcommand{\qntset}{Qn}
                                            1202 \cmdmthsetext{Qnt} [\qntset] [\qntsym]
       \free, \bound ...
                                            1204 \mbox{ \normalfooth bound}{{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfo
               \dep, \alt ...
                                            1205 \usrmth{dep}{}{argfun}
                                            1206 \usrmth{alt}{}{argfun}
  \cnf, \dnf, ... ...
                                           1207 \cmdtxtabr{cnf}
                                            1208 \cmdtxtabr{dnf}
                                            1209 \cmdtxtabr{pnf}
                                            1210 \cmdtxtabr{nnf}
                                            \LogStr, ... ...
                                            1212 \neq \{L\}
                                            1213 \verb|\usrmth|| a tupp{Log}{Str}{str}[\logstr]
```

```
\ValSet, ... ...
            1214 \newcommand{\valsym}{\xi}
            1215 \newcommand{\valset}{Val}
            1216 \cmdmthsetext{Val}[\valset][\valsym]
\AsgSet, ... ...
            1217 \newcommand{\asgsym}{\chi}
            1218 \newcommand{\asgset}{Asg}
            1219 \cmdmthsetext{Asg}[\asgset][\asgsym]
            \FOL, ... ...
            1221 % First-Order Logic
            1222 \cmdtxtoparname{FOL}[Fol]
            1223 \cmdtxtoparname{F0}[F0]
            1224
            1225 % Monadic First-Order Logic
            1226 \DeclareRobustCommand{\MFOL}
            1227 \{\{\text{txtname}\{M\}\}\}\
            1228 \DeclareRobustCommand{\MFO}
            1229 {{\txtname{M}}\FO}
            \VarSig, ... ...
            1231 \newcommand{\varsig}{V}
            1232 \usrmthlatupp{Var}{Sig}{sig}[\varsig]
            1233 \newcommand{\varsym}{x}
            1234 \newcommand{\varset}{Vr}
            1235 \cmdmthsetext{Var}[\varset][\varsym]
            1236 \usrmth{var}{}{argfun}[vr]
            \ConSig, ... ...
            1238 \newcommand{\consig}{C}
            1239 \usrmthlatupp{Con}{Sig}{sig}[\consig]
            1240 \newcommand{\consym}{c}
            1241 \newcommand{\conset}{Cn}
            1242 \cmdmthsetext{Con}[\conset][\consym]
            1243 \usrmth{con}{}{argfun}[cn]
\FunSig, ... ...
            1244 \newcommand{\funsig}{F}
            1245 \usrmthlatupp{Fun}{Sig}{sig}[\funsig]
            1246 \newcommand{\funsym}{f}
            1247 \newcommand{\funset}{Fn}
            1248 \cmdmthsetext{Fun}[\funset][\funsym]
            1249 \usrmth{fun}{}{argfun}[fn]
            1250 \cmdmthfun{art}[ar]\usrmth{art}{}{argfun}[ar]
\TerSig, ... ...
            1251 \newcommand{\tersig}{T}
            1252 \usrmthlatupp{Ter}{Sig}{sig}[\tersig]
            1253 \newcommand{\tersym}{t}
            1254 \newcommand{\terset}{Tr}
            1255 \cmdmthsetext{Ter}[\terset][\tersym]
            1256 \usrmth{ter}{}{argfun}
\RelSig, ... ...
            1257 \mbox{ } \mbox{newcommand{\relsig}{R}}
            1258 \usrmthlatupp{Rel}{Sig}{sig}[\relsig]
            1259 \mbox{ } \mbox{relsym}{r}
```

```
1260 \newcommand{\relset}{Rl}
                                  1261 \cmdmthsetext{Rel}[\relset][\relsym]
                                  1262 \operatorname{lgr}[r1]
                     \skm ...
                                  1263 \usrmth{skm}{}{argfun}
                                  \ConStr, ... ...
                                  1265 \mbox{ } \mbox{constr}{C}
                                  1266 \usrmthlatupp{Con}{Str}{str}[\constr]
    \FunStr, ... ...
                                  1267 \mbox{ } \mbox
                                  1268 \usrmthlatupp{Fun}{Str}{str}[\funstr]
    \TerStr, ... ...
                                  1269 \newcommand{\terstr}{T}
                                  1270 \usrmthlatupp{Ter}{Str}{str}[\terstr]
    \RelStr, ... ...
                                  1271 \newcommand{\relstr}{R}
                                  1272 \usrmthlatupp{Rel}{Str}{str}[\relstr]
                                  \DF, \IF, ... ...
                                  1274 % Dependence-Friendly Logic
                                  1275 \cmdtxtoparname{DF}
                                  1276
                                  1277 % Independence-Friendly Logic
                                  1278 \cmdtxtoparname{IF}
                                  1280 % Dependence/Independence-Friendly Logic
                                  1281 \cmdtxtoparname{DIF}
                                  1282
                                  1283 % Dependence Logic
                                  1284 \cmdtxtoparname{DL}
                                  1286 % Team Logic
                                  1287 \cmdtxtoparname{TL}
                                  1289 % Alternating Dependence-Friendly Logic
                                  1290 \cmdtxtoparname{ADF}
                                  1292 % Alternating Independence-Friendly Logic
                                  1293 \cmdtxtoparname{AIF}
                                  1294
                                  1295 % Alternating Dependence/Independence-Friendly Logic
                                  1296 \cmdtxtoparname{ADIF}
                                  \LEExs, \LAA11 ...
                                  1298 \newcommand{\leexssym}{\Sigma}
                                  1299 \usrmth{LEExs}{}{luop}[\leexssym]
                                  1300 \newcommand{\laallsym}{\Pi}
                                  1301 \usrmth{LAAll}{}{luop}[\laallsym]
```

```
\SOL, ... ...
            1304 % Second-Order Logic
            1305 \cmdtxtoparname{SOL}[Sol]
            1306 \cmdtxtoparname{SO}
            1307
            1308 % Weak Second-Order Logic
            1309 \DeclareRobustCommand{\WSOL}
            1310 \{\{\text{txtname}\{W\}\}\SOL\}
            1311 \DeclareRobustCommand{\WSO}
            1312 {{\txtname{W}}\SO}
            1314 % coWeak Second-Order Logic
            1315 \DeclareRobustCommand{\coWSOL}
            1316 {{\txtname{coW}}\SOL}
            1317 \DeclareRobustCommand{\coWSO}
            1318 \{\{\text{txtname}\{\text{coW}\}\}\
            1319
            1320 % Monadic Second-Order Logic
            1321 \DeclareRobustCommand{\MSOL}
            1322 \quad \{\{\text{txtname}\{M\}\}\}\
            1323 \DeclareRobustCommand{\MSO}
            1324 {{\txtname{M}}\SO}
            1326 % Weak Monadic Second-Order Logic
            1327 \DeclareRobustCommand{\WMSOL}
            1328 \{\{\text{txtname}\{W\}\}\}\
            1329 \DeclareRobustCommand{\WMSO}
            1330 \{\{\text{txtname}\{W\}\}\}\
            1332 % coWeak Monadic Second-Order Logic
            1333 \DeclareRobustCommand{\coWMSOL}
            1334 {{\txtname{coW}}\MSOL}
            1335 \DeclareRobustCommand{\coWMSO}
                 {{\txtname{coW}}\MSO}
            \FVarSet, ... ...
            1338 \newcommand{\fvarsym}{x}
            1339 \newcommand{\fvarset}{FVr}
            1340 \cmdmthsetext{FVar}[\fvarset][\fvarsym]
\SVarSet, ... ...
            1341 \newcommand{\svarsym}{X}
            1342 \newcommand{\svarset}{SVr}
            1343 \cmdmthsetext{SVar}[\svarset][\svarsym]
            \TL, \PL, ... ...
            1346 % Tree Logic
            1347 \cmdtxtoparname{TL}
            1348
            1349 % Weak Tree Logic
            1350 \DeclareRobustCommand{\WTL}
                 {\{\text{txtname}\{W\}}\TL\}
            1351
            1352
```

```
1353 % coWeak Tree Logic
             1354 \verb|\DeclareRobustCommand{\coWTL}|
                 {\{\texttxtname\{coW\}}\TL\}
             1356
             1357 % Monadic Tree Logic
             1358 \DeclareRobustCommand{\MTL}
                 {\{\text{txtname}\{M\}}\}\
             1361 % Weak Monadic Tree Logic
             1362 \DeclareRobustCommand{\WMTL}
                  {{\txtname{W}}\MTL}
             1365\;\text{\%} coWeak Monadic Tree Logic
             1366 \DeclareRobustCommand{\coWMTL}
                  {{\txtname{coW}}\MTL}
             1367
             1368
             1369 % Path Logic
             1370 \cmdtxtoparname{PL}
             1371
             1372 % Weak Path Logic
             1373 \DeclareRobustCommand{\WPL}
                  {\{\text{txtname}\{W\}}\PL\}
             1375
             1376 % coWeak Path Logic
             1377 \DeclareRobustCommand{\coWPL}
                  {\{\text{coW}}\
             1378
             1379
             1380 % Monadic Path Logic
             1381 \DeclareRobustCommand{\MPL}
                  {{\txtname{M}}\PL}
             1383
             1384 % Weak Monadic Path Logic
             1385 \DeclareRobustCommand{\WMPL}
                  {\{\text{\txtname}\{W\}}\MPL\}
             1386
             1387
             1388 % coWeak Monadic Path Logic
             1389 \DeclareRobustCommand{\coWMPL}
                 {{\txtname{coW}}\MPL}
             \ML, \QML, ... ...
             1394 % Modal Logic
             1395 \cmdtxtoparname{ML}
             1396
             1397 % Quantified Modal Logic
             1398 \DeclareRobustCommand{\QML}
                  {\{\text{txtname}\{Q\}\}\setminus ML\}}
             1400 \DeclareRobustCommand{\EML}
                 {\ensuremath{\exists}\ML}
             1402 \DeclareRobustCommand{\UML}
                 {\ensuremath{\forall}\ML}
             \Opr ...
             1405 \usrmth{Opr}{}{sym}[Op]
```

```
\DMod, \BMod ...
              1406 \usrmth{DMod}{}{sym}[\Diamond]
              1407 \verb|\usrmth{BMod}{{}} sym} [\Box]
    \Exs, \All ...
              1408 \DeclareRobustCommand{\Exs}[1]
                  {\mth{\defval{\argmid{\langle}{#1}{\rangle}}}\DMod}}}
              1410 \DeclareRobustCommand{\All}[1]
              1411 \quad \{\mth{\defval{\argmid{\left[}{\#1}{\left[\right]}}}{\BMod}}\}
              \KrpStr, ... ...
              1413 \newcommand{\krpstr}{K}
              1414 \usrmthlatupp{Krp}{Str}{str}[\krpstr]
   \WrlSet, ... ...
             1415 \newcommand{\wrlsym}{w}
             1416 \newcommand{\wrlset}{W}
              1417 \cmdmthsetext{Wrl}[\wrlset][\wrlsym]
              1418 \cmdmthsymelm{iwrl}[\wrlsym_{I}]
\AccRel, \TrnRel
              1419 \mbox{ } \mbox{newcommand{\accsym}{R}}
              1420 \cmdmthrel{Acc} [\accsym]
              1421 \cmdmthrel{Trn}[\accsym]
       \labFun ...
             1422 \mbox{labsym}{\lambda}
              1423 \cmdmthfun{lab}[\labsym]
\PthSet, \pthFun
              1424 \providecommand{\phi}{\phi}
              1425 \providecommand{\phithset}{Pth}
              1426 \mbox{ \cmdmthsetext{Pth} [\pthset] [\pthsym]}
              1427 \cmdmthfun{pth}
              \MC, \QMC, ...
             1429 % Mu Calculus
             1430 \cmdtxtoparname{MC}[\ensuremath{\mu}-Calculus]
              1432 % Quantified Modal Logic
              1433 \DeclareRobustCommand{\QMC}
                  \{\{\text{txtname}\{Q\}\}\}\
              1435 \DeclareRobustCommand{\EMC}
              1436 {\ensuremath{\exists}\MC}
              1437 \DeclareRobustCommand{\UMC}
                  {\ensuremath{\forall}\MC}
```

```
\PTL, \LTL, ... ...
               1442 % Propositional Temporal Logic
               1443 \cmdtxtoparname{PTL}
               1445 % Quantified Propositional Temporal Logic
               1446 \verb|\DeclareRobustCommand{\QPTL}|
                    {\{\text{txtname}\{Q\}}\
               1448 \DeclareRobustCommand{\EPTL}
                    {\ensuremath{\exists}\PTL}
               1450 \DeclareRobustCommand{\UPTL}
                    {\ensuremath{\forall}\PTL}
               1453 \% Linear Temporal Logic
               1454 \verb|\cmdtxtoparname{LTL}|
               1456\ \% Quantified Linear Temporal Logic
               1457 \DeclareRobustCommand{\QLTL}
               1458 \{\{\text{txtname}\{Q\}\}\}\
               1459 \DeclareRobustCommand{\ELTL}
               1460 {\ensuremath{\exists}\LTL}
               1461 \DeclareRobustCommand{\ULTL}
               1462 {\ensuremath{\forall}\LTL}
               \X, ... ...
               1464 \operatorname{X}{{\sym}[X\,]}
               1465 \operatorname{f}{f}{sym}[F\,]
               1466 \usrmth{G}{}{sym}[G\,]
               1467 \operatorname{U}{sym}[\,U\,]
               1468 \operatorname{k}{R}{sym}[\,R\,]
       \Y, ... ...
               1469 \usrmth{Y}{}{sym}[G\,]
               1470 \usrmth{P}{}{sym}[P\,]\left(\usrmth{P}\)
               1471 \usrmth{H}{}{sym}[H\,]\let\SaveDoubleAcute\H
               1472 \space{1472 \operatorname{S}}{sym}[\,S\,]\left\c\\SaveSectionSymbol\S
               1473 \usrmth{B}{}{sym}[\,B\,]
               \PDL, \CTL, ... ...
               1477 % Propositional Dynamic Logic
               1478 \cmdtxtoparname{PDL}
               1480 % Computation Tree Logic
               1481 \cmdtxtoparname{CTL}
               1483 % Weak Computation Tree Logic
               1484 \DeclareRobustCommand{\WCTL}
                    {\{\text{txtname}\{W\}}\CTL\}
               1485
               1487 % Quantified Computation Tree Logic
               1488 \DeclareRobustCommand{\QCTL}
                    {{\txtname{Q}}\CTL}
               1490 \DeclareRobustCommand{\ECTL}
                    {\ensuremath{\exists}\CTL}
               1492 \DeclareRobustCommand{\UCTL}
               1493 {\ensuremath{\forall}\CTL}
```

```
1495 % Improved Computation Tree Logic
          1496 \cmdtxtoparname{CTLP}[CTL$^{+}$]
          1498 % Weak Improved Computation Tree Logic
          1499 \DeclareRobustCommand{\WCTLP}
              {\{\text{txtname}\{W\}}\CTLP\}
          1502 % Quantified Improved Computation Tree Logic
          1503 \DeclareRobustCommand{\QCTLP}
              {\{\text{txtname}\{Q\}\}\CTLP\}}
          1505 \DeclareRobustCommand{\ECTLP}
               {\ensuremath{\exists}\CTLP}
          1507 \DeclareRobustCommand{\UCTLP}
               {\ensuremath{\forall}\CTLP}
          1508
          1510 % Full Computation Tree Logic
          1511 \cmdtxtoparname{CTLS}[CTL*]
          1512
          1513 % Weak Full Computation Tree Logic
          1514 \DeclareRobustCommand{\WCTLS}
               {{\txtname{W}}\CTLS}
          1516
          1517 % Quantified Full Computation Tree Logic
          1518 \DeclareRobustCommand{\QCTLS}
              {\{\text{txtname}\{Q\}\}\}\
          1520 \DeclareRobustCommand{\ECTLS}
              {\ensuremath{\exists}\CTLS}
          1522 \DeclareRobustCommand{\UCTLS}
              {\ensuremath{\forall}\CTLS}
          \E, \A ...
          1525 \operatorname{Lsrmth}{E}{sym}
          1526 \usrmth{A}{}{sym}
          \ATL, ...
          1529 % Alternating Temporal Logic
          1530 \cmdtxtoparname{ATL}
          1531
          1532 % Weak Alternating Tree Logic
          1533 \DeclareRobustCommand{\WATL}
          1534
               {{\txtname{W}}\ATL}
          1535
          1536 % Quantified Alternating Temporal Logic
          1537 \DeclareRobustCommand{\QATL}
               {\{\text{txtname}\{Q\}\}\setminus ATL\}}
          1539 \DeclareRobustCommand{\EATL}
              {\ensuremath{\exists}\ATL}
          1541 \DeclareRobustCommand{\UATL}
               {\ensuremath{\forall}\ATL}
          1542
          1543
          1544 % Improved Alternating Temporal Logic
          1545 \cmdtxtoparname{ATLP}[ATL$^{+}$]
          1547 % Weak Improved Alternating Tree Logic
          1548 \DeclareRobustCommand{\WATLP}
              {\{\text{txtname}\{W\}}\ATLP\}
```

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```
1551 % Quantified Improved Alternating Temporal Logic
             1552 \DeclareRobustCommand{\QATLP}
             1553 \{\{\text{txtname}\{Q\}\}\} ATLP\}
             1554 \DeclareRobustCommand{\EATLP}
             1555 {\ensuremath{\exists}\ATLP}
             1556 \DeclareRobustCommand{\UATLP}
                  {\ensuremath{\forall}\ATLP}
             1558
             1559 % Full Alternating Temporal Logic
             1560 \cmdtxtoparname{ATLS}[ATL*]
             1562 % Weak Full Alternating Tree Logic
             1563 \DeclareRobustCommand{\WATLS}
             1564
                  {{\txtname{W}}\ATLS}
             1565
             1566 % Quantified Full Alternating Temporal Logic
             1567 \DeclareRobustCommand{\QATLS}
                  {{\txtname{Q}}\ATLS}
             1569 \DeclareRobustCommand{\EATLS}
             1570 {\ensuremath{\exists}\ATLS}
             1571 \DeclareRobustCommand{\UATLS}
             1572 {\ensuremath{\forall}\ATLS}
             \EExs, \AAll
             1574 \DeclareRobustCommand{\EExs}[1]
             1575 {\mth{\argmid{\langle\!\langle}{\defval{#1}{\emptyset}}{\rangle\!\rangle}}}
             1576 \DeclareRobustCommand{\AAll}[1]
                  {\mth{\argmid{\left[\left[}{\defval{#1}{\emptyset}}{\right]\right]}}}
             \CGS ...
             1579 \cmdtxtname{CGS}
\CGSStr, ...
             1580 \mbox{ \newcommand{\cgsstr}{G}}
             1581 \usrmthlatupp{CGS}{Str}{str}[\cgsstr]
\AgnSet, ... ...
             1582 \mbox{newcommand{\agnsym}{a}}
             1583 \newcommand{\agnset}{Ag}
             1584 \cmdmthsetext{Agn}[\agnset][\agnsym]
\PosSet, ... ...
             1585 \providecommand{\possym}{v}
             1586 \providecommand{\posset}{Ps}
             1587 \cmdmthsetext{Pos}[\posset][\possym]
             1588 \cmdmthsymelm{ipos}[\possym_{I}]
             1589 \cmdmthsymelm{fpos}[\possym_{F}]
             1590 \cmdmthset{PPos} [\posset_{\PlrSym}]
             1591 \cmdmthsymelm{ppos}[\possym_{\PlrSym}]
             1592 \cmdmthset{OPos} [\posset_{\OppSym}]
             1593 \cmdmthsymelm{opos}[\possym_{\OppSym}]
\SttSet, ...
             1594 \newcommand{\sttsym}{s}
             1595 \newcommand{\sttset}{St}
             1596 \cmdmthsetext{Stt}[\sttset][\sttsym]
             1597 \cmdmthset{IStt}[\sttset_{I}]
             1598 \cmdmthsymelm{istt}[\sttsym_{I}]
             1599 \cmdmthset{FStt}[\sttset_{F}]
             1600 \cmdmthsymelm{fstt}[\sttsym_{F}]
```

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```
\ActSet, ... ...
                   1601 \newcommand{\actsym}{c}
                   1602 \mbox{ \newcommand{\actset}{Ac}}
                   1603 \cmdmthsetext{Act}[\actset][\actsym]
    \DecSet, ...
                   1604 \mbox{ \newcommand{\decsym}{d}}
                   1605 \mbox{ \newcommand{\decset}{Dc}}
                   1606 \cmdmthsetext{Dec}[\decset][\decsym]
         \mbox{movFun}
                   1607 \newcommand{\movsym}{\tau}
                   1608 \cmdmthfun{mov}[\movsym]
    \HstSet, ...
                   1609 \providecommand{\hstsym}{\rho}
                   1610 \providecommand{\hstset}{Hst}
                   1611 \cmdmthsetext{Hst}[\hstset][\hstsym]
                   1612 \cmdmthset{PHst}[\hstset_{\PlrSym}]
                   1613 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
                   1614 \cmdmthset{OHst}[\hstset_{\OppSym}]
                   1615 \cmdmthsymelm{ohst}[\hstsym_{\OppSym}]
                   1616 \cmdmthfun{hst}
\PlaySet,\playFun
                   1617 \providecommand{\playsym}{\pi}
                   1618 \providecommand{\playset}{Play}
                   1619 \cmdmthsetext{Play}[\playset][\playsym]
                   1620 \cmdmthfun{play}
    \StrSet, ... ...
                   1621 \providecommand{\strsym}{\sigma}
                   1622 \verb|\providecommand{\strset}{Str}|
                   1623 \cmdmthsetext{Str}[\strset][\strsym]
                   1624 \cmdmthset{PStr}[\strset_{\PlrSym}]
                   1625 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
                   1626 \cmdmthset{OStr}[\strset_{\OppSym}]
                   1627 \mbox{ } [\mbox{strsym_{\normalfont}[}]
\PrfSet, \prfFun
                   1628 \providecommand{\prfsym}{\xi}
                   1629 \providecommand{\prfset}{Prf}
                   1630 \cmdmthsetext{Prf}[\prfset][\prfsym]
                   \SL, ... ...
                   1632 % Strategy Logic
                   1633 \cmdtxtoparname{SL}
                   1634
                   1635 \DeclareRobustCommand{\ESL}
                       {\ensuremath{\exists}\SL}
                   1637 \DeclareRobustCommand{\USL}
                   1638
                        {\ensuremath{\forall}\SL}
                   1639
                   1640 \DeclareRobustCommand{\FSL}
                        {\{\text{txtname}\{F\}\}\SL\}}
                   1641
                   1642
                   1643 \DeclareRobustCommand{\EFSL}
                        {\ensuremath{\exists}\FSL}
                   1645 \DeclareRobustCommand{\UFSL}
                   1646
                        {\ensuremath{\forall}\FSL}
                   1647
```

```
1648 % One-Goal Strategy Logic
1649 \DeclareRobustCommandx{\OGSL}[3][1=, 2=, 3=]
     {\SL[#1][#2][1g\arglef{,}{#3}]}
1651
1652 \DeclareRobustCommand{\EOGSL}
     {\ensuremath{\exists}\OGSL}
1653
1654 \DeclareRobustCommand{\UOGSL}
      {\ensuremath{\forall}\OGSL}
1655
1656
1657 \DeclareRobustCommand{\FOGSL}
      {{\txtname{F}}\OGSL}
1659
1660 \DeclareRobustCommand{\EFOGSL}
      {\ensuremath{\exists}\FOGSL}
1661
1662 \DeclareRobustCommand{\UFOGSL}
1663
      {\ensuremath{\forall}\FOGSL}
1664
1665 % Conjunctive-Goal Strategy Logic
1666 \DeclareRobustCommandx{\CGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][cg\arglef{,}{#3}]}
1668
1669 \DeclareRobustCommand{\ECGSL}
     {\ensuremath{\exists}\CGSL}
1671 \DeclareRobustCommand{\UCGSL}
      {\ensuremath{\forall}\CGSL}
1672
1673
1674 \DeclareRobustCommand{\FCGSL}
1675
      {\{ \text{xtname}\{F\} \} \times GSL \}}
1676
1677 \DeclareRobustCommand{\EFCGSL}
      {\ensuremath{\exists}\FCGSL}
1679 \DeclareRobustCommand{\UFCGSL}
1680
      {\ensuremath{\forall}\FCGSL}
1681
1682 % Disjunctive-Goal Strategy Logic
1683 \verb|\DGSL|[3][1=, 2=, 3=]|
      {\SL[#1][#2][dg\arglef{,}{#3}]}
1684
1685
1686 \DeclareRobustCommand{\EDGSL}
      {\ensuremath{\exists}\DGSL}
1688 \DeclareRobustCommand{\UDGSL}
      {\ensuremath{\forall}\DGSL}
1691 \DeclareRobustCommand{\FDGSL}
1692
     {\{\text{xtname}\{F\}\}\times GSL\}}
1693
1694 \DeclareRobustCommand{\EFDGSL}
     {\ensuremath{\exists}\FDGSL}
1696 \DeclareRobustCommand{\UFDGSL}
      {\ensuremath{\forall}\FDGSL}
1699 % Alternating-Goal Strategy Logic
1700 \DeclareRobustCommandx{\AGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][ag\arglef{,}{#3}]}
1702
1703 \DeclareRobustCommand{\EAGSL}
      {\ensuremath{\exists}\AGSL}
1705 \DeclareRobustCommand{\UAGSL}
      {\ensuremath{\forall}\AGSL}
1706
1707
1708 \DeclareRobustCommand{\FAGSL}
      {\{\text{xtname}\{F\}\}\times GSL\}}
1709
1710
```

```
1711 \DeclareRobustCommand{\EFAGSL}
     {\ensuremath{\exists}\FAGSL}
1713 \DeclareRobustCommand{\UFAGSL}
1714
     {\ensuremath{\forall}\FAGSL}
1715
1716 % Extended-Goal Strategy Logic
1717 \DeclareRobustCommandx{\EGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][eg\arglef{,}{#3}]}
1719
1720 \DeclareRobustCommand{\EEGSL}
      {\ensuremath{\exists}\EGSL}
1722 \DeclareRobustCommand{\UEGSL}
      {\ensuremath{\forall}\EGSL}
1724
1725 \DeclareRobustCommand{\FEGSL}
      {\{\text{xtname}\{F\}\}\}\}
1726
1727
1728 \DeclareRobustCommand{\EFEGSL}
      {\ensuremath{\exists}\FEGSL}
1730 \DeclareRobustCommand{\UFEGSL}
      {\ensuremath{\forall}\FEGSL}
1733 % Boolean-Goal Strategy Logic
1734 \DeclareRobustCommandx{\BGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][bg\arglef{,}{#3}]}
1735
1736
1737 \DeclareRobustCommand{\EBGSL}
     {\ensuremath{\exists}\BGSL}
1739 \DeclareRobustCommand{\UBGSL}
      {\ensuremath{\forall}\BGSL}
1741
1742 \DeclareRobustCommand{\FBGSL}
      {\{\text{txtname}\{F\}\}\setminus xGSL\}}
1743
1745 \DeclareRobustCommand{\EFBGSL}
     {\ensuremath{\exists}\FBGSL}
1747 \DeclareRobustCommand{\UFBGSL}
     {\ensuremath{\forall}\FBGSL}
1749
1750 % Nested-Goal Strategy Logic
1751 \DeclareRobustCommandx{\NGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][ng\arglef{,}{#3}]}
1754 \DeclareRobustCommand{\ENGSL}
     {\ensuremath{\exists}\NGSL}
1756 \verb|\DeclareRobustCommand{\UNGSL}|
1757
      {\ensuremath{\forall}\NGSL}
1758
1759 \DeclareRobustCommand{\FNGSL}
     {\{\text{txtname}\{F\}\}\setminus xGSL\}}
1760
1761
1762 \DeclareRobustCommand{\EFNGSL}
     {\ensuremath{\exists}\FNGSL}
1764 \DeclareRobustCommand{\UFNGSL}
1765
      {\ensuremath{\forall}\FNGSL}
1766
1767 % Undefined-Goal Strategy Logic
1768 \DeclareRobustCommandx{\XGSL}[3][1=, 2=, 3=]
1769
      {\SL[#1][#2][xg\arglef{,}{#3}]}
1770
1771 \DeclareRobustCommand{\EXGSL}
      {\ensuremath{\exists}\XGSL}
1773 \DeclareRobustCommand{\UXGSL}
```

```
{\ensuremath{\forall}\XGSL}
                                                                                    1775
                                                                                    1776 \DeclareRobustCommand{\FXGSL}
                                                                                    1777
                                                                                                                 {\{\text{txtname}\{F\}\}\setminus xGSL\}}
                                                                                    1778
                                                                                   1779 \DeclareRobustCommand{\EFXGSL}
                                                                                    1780 {\ensuremath{\exists}\FXGSL}
                                                                                    1781 \DeclareRobustCommand{\UFXGSL}
                                                                                                                {\ensuremath{\forall}\FXGSL}
                                                                                    \BndSet, ... ...
                                                                                   1784 \newcommand{\bndsym}{\flat}
                                                                                   1785 \newcommand{\bndset}{Bn}
                                                                                   1786 \cmdmthsetext{Bnd}[\bndset][\bndsym]
                                                                                   1787 \usrmth{bnd}{}{argfun}
                                                     \psn ...
                                                                                   1788 \usrmth{psn}{}{argfun}
                                                                                    \nxtFun
                                                                                    1790 \newcommand{\nxtfun}{nxt}
                                                                                    1791 \cmdmthfun{nxt} [\nxtfun]
                                                                                    1792 \fi
                                                                                    1797 \ifaut@
                                                                                    \DWA, ...
                                                                                  1799 \verb|\cmdtxtoparname{DWA}\cmdtxtoparname{WMA}\cmdtxtoparname{AWA}|
                                                                                    1801 \verb|\cmdtxtoparname{DFW}\cmdtxtoparname{AFW}| cmdtxtoparname{AFW}| 
                                                                                    1802 \verb|\cmdtxtoparname{DBW}\cmdtxtoparname{ABW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{ABW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{ABW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{BW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{BW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{BW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}| $$ 1802 \verb|\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtoparname{BW}\cmdtxtopar
                                                                                    1803 \verb|\cmdtxtoparname{DCW}\cmdtxtoparname{MCW}\cmdtxtoparname{ACW}|
                                                                                    1804 \verb|\cmdtxtoparname{DPW}\cmdtxtoparname{MPW}\cmdtxtoparname{APW}|
                                                                                    1805 \verb|\cmdtxtoparname{DRW}\cmdtxtoparname{ARW}| $$ \cmdtxtoparname{ARW}$ $$ $$ \cmdtxtoparname{ARW}$ $$ \cmdtxtoparnam
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                                                                                    1807 \verb|\cmdtxtoparname{DMW}\cmdtxtoparname{MW}| cmdtxtoparname{AMW}| c
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                                                                                    1810 \cmdtxtoparname{PD}
                                                                                    1811
                                                                                    1812 %% ...
                                                                                    \AutName, ... ...
                                                                                    1814 \newcommand{\autname}{A}
                                                                                    1815 \usrmthlatupp{Aut}{Name}{name}[\autname]
                                                                                    1816 \mbox{ \newcommand{\autset}{Aut}}
                                                                                    1817 \cmdmthset{Aut}[\autset]
                                \WAutSet ...
                                                                                     1818 \newcommand{\wautset}{WAut}
                                                                                    1819 \cmdmthset{WAut}[\wautset]
```

```
\SttSet, ... ...
                                        1820 \left( \frac{1}{2} \right)
                                         1821 \def\sttset{Q}
                                         1822 \cmdmthsetext{Stt}[\sttset][\sttsym]
                                         1823 \verb|\cmdmthset{IStt}[\sttset_{I}]|
                                         1824 \cmdmthsymelm{istt}[\sttsym_{I}]
                                         1825 \cmdmthset{FStt}[\sttset_{F}]
                                         1826 \cmdmthsymelm{fstt}[\sttsym_{F}]
  \SymSet, ...
                                         1827 \newcommand{\symsym}{\sigma}
                                         1828 \newcommand{\symset}{\Sigma}
                                         1829 \cmdmthsetext{Sym}[\symset][\symsym]
                \trnFun ...
                                         1830 \newcommand{\trnsym}{\delta}
                                         1831 \cmdmthfun{trn}[\trnsym]
                                         \LangFun
                                         1833 \mbox{langfun}{L}
                                         1834 \cmdmthfun{Lang}[\langfun]
  \WrdSet, ... ...
                                         1835 \newcommand{\wrdsym}{w}
                                         1836 \newcommand{\wrdset}{Wr}
                                         1837 \cmdmthsetext{Wrd}[\wrdset][\wrdsym]
                                         \DTA, ... ...
                                         1839 \verb|\cmdtxtoparname{DTA}\cmdtxtoparname{UTA}\cmdtxtoparname{ATA}|
                                         1840
                                         1841 \verb|\cmdtxtoparname{DFT}\cmdtxtoparname{AFT}| \\
                                         1842 \cmdtxtoparname{DBT}\cmdtxtoparname{MBT}\cmdtxtoparname{MBT}\cmdtxtoparname{ABT}
                                         1843 \cmdtxtoparname{DCT}\cmdtxtoparname{UCT}\cmdtxtoparname{UCT}\cmdtxtoparname{ACT}
                                         1844 \verb|\cmdtxtoparname{NPT}\cmdtxtoparname{UPT}\cmdtxtoparname{APT}|
                                         1845 \verb|\cmdtxtoparname{NRT}| cmdtxtoparname{URT}| cmdtxtoparname{ART}| cmdtxtoparname{ART}|
                                         1846 \verb|\cmdtxtoparname{NST}| cmdtxtoparname{UST}| cmdtxtoparname{AST}| cmdtxtoparname{AST}|
                                         1847 \verb|\cmdtxtoparname{NMT}\cmdtxtoparname{UMT}\cmdtxtoparname{AMT}| \\
                                         \TAutSet ...
                                         1849 \newcommand{\tautset}{TAut}
                                         1850 \cmdmthset{TAut}[\tautset]
  \DirSet, ... ...
                                         1851 \newcommand{\dirsym}{d}
                                         1852 \newcommand{\dirset}{\Lambda}
                                         1853 \cmdmthsetext{Dir}[\dirset][\dirsym]
                                         \TreeSet, ... ...
                                         1855 \newcommand{\treesym}{T}
                                         1856 \newcommand{\treeset}{Tr}
                                         1857 \verb|\cmdmthsetext{Tree}| [\verb|\treeset|] [\treesym]|
                \wotFun ...
                                          1858 \newcommand{\wotfun}{wot}
                                         1859 \cmdmthfun{wot}[\wotfun]
```

```
1860 \fi
     1865 \iffrm@
   1866 %%...
     1867 \fi
     1872 \iffig@
     1873 \RequirePackage{tikz}
     1874 \usetikzlibrary{arrows,graphs,matrix,patterns,shapes}
     1875 \tikzstyle{every node} =
       [draw = none, fill = none, black, thin]
     1877 \tikzstyle{every edge} +=
     1878 [black, thick]
     1879 \tikzstyle{noall} =
     1880 [draw = none, fill = none]
     1881 \tikzstyle{nodraw} =
     1882 [draw = none, fill = white]
     1883 \tikzstyle{nofill} =
     1884 [draw = black, fill = none]
     1885 \ifwrpfig@
     1886 % Wrapfig Package
     1887
       \RequirePackage{wrapfig}
     1888 \fi
     1889 \fi
     1894 \iftab@
     1895 %%...
     1896 \fi
     1901 \ifalg@
     1902 \RequirePackage[ruled,vlined]{algorithm2e}
     1903 \setlength{\algomargin}{1.25em}
     1904 \DontPrintSemicolon
     1905 \SetInd{0.25em}{0.5em}
\Signature ...
     1906 \SetKw{Signature}{signature}
\Macro, ... ...
     1907 \SetKwFor{Macro}{macro}{}}
     1908 \SetKwFor{Function}{function}{}}
     1909 \SetKwFor{Procedure}{procedure}{}{}
```

```
\Let ...
                                                         1910 \SetKwFor{Let}{let}{in}{}
\True, \False ...
                                                         1911 \SetKw{True}{true}
                                                         1912 \SetKw{False}{false}
           \From, \To ...
                                                         1913 \SetKw{From}{from}
                                                          1914 \SetKw{To}{to}
                                                         1915 \SetKw{DownTo}{downto}
           \GoTo, ... ...
                                                         1916 \SetKw{GoTo}{goto}
                                                         1917 \SetKw{Break}{break}
                                                         1918 \SetKw{Continue}{continue}
               \MIf, ... ...
                                                         1919 \texttt{\MElseIf}{\texttt{MElse}{\wif}{\welse \wif}{\welse}{\welse} \
                                   \nlr ...
                                                          1920 \label{localized} $$1920 \label{localiz
                                                                              {\addtocounter{AlgoLine}{1}%
                                                          1921
                                                                                1923 \fi
                                                          1925 \endinput
                                                          1926 (/package)
```

2 Change History

v0.0	extensions 1
General: First public release 1	v0.5
v0.1	General: Figure tricks
General: Algorithm tricks 1	v0.6
v0.10	
General: Small refinements 1	General: Small refinements 1
v0.11	v0.7
General: Few additions	General: Refinements, corrections, and
v0.2	extensions
General: Changes in auxiliary tricks $\ \ldots \ 1$	v0.8
v0.3	
General: Few problems solved 1	General: Few refinements and corrections 1
v0.4	v0.9
General: Refactoring, corrections, and	General: Small addition to 'Algorithm tricks' 1

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Noutfun 1093, 1094 Noverline 795 P 1470 PackageWarning 126 PDL, □\CTL, □ 1476 Percontra 738 Ppercontra 721 PH 1004 Pi 1300 pi 1057, 1069, 1424, 1617 playset 1070, 1071, 1618, 1619	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\seqoflet
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\text{Outfum} \tag{1093, 1094} \text{Overline} \tag{795} \tag{P} \tag{P} \tag{P} \tag{1470} \text{PackageWarning} \tag{126} \text{PDL, \(\cap{CTL, \(\cup \)}\)} \tag{1476} \text{Percontra} \tag{738} \text{Percontra} \tag{738} \text{Percontra} \tag{721} \text{PH} \tag{1004} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1057, 1069, 1424, 1617} \text{Playset 1070, 1071, 1618, 1619} \text{PlaySet, \(\cup \)playFun \tag{1069, 1617} \text{Playsym} \tag{1069, 1071, 1617, 1619} \text{1617}	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\seqoflet
\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \tag{P} \tag{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{21} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1300} \text{\coverline} \coverl	\QCTLP	\seqoflet
\text{Outfum} \tag{1093, 1094} \text{Overline} \tag{795} \tag{P} \tag{P} \tag{P} \tag{1470} \text{PackageWarning} \tag{126} \text{PDL, \(\cap{CTL, \(\cup \)}\)} \tag{1476} \text{Percontra} \tag{738} \text{Percontra} \tag{738} \text{Percontra} \tag{721} \text{PH} \tag{1004} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1300} \text{Pi} \tag{1057, 1069, 1424, 1617} \text{Playset 1070, 1071, 1618, 1619} \text{PlaySet, \(\cup \)playFun \tag{1069, 1617} \text{Playsym} \tag{1069, 1071, 1617, 1619} \text{1617}	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet,_\(\) 1200 \qntsym 1200, 1202 \QPSpace,_\(\) 1000 \QPTime,_\(\) 999 \QPTL 1446 R \raisebox 858 \rangle 813, 815, 816, 818, 1409, 1575 \rbrace 821, 825	\seqoflet
\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \tag{P} \tag{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{21} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1300} \text{\coverline} \coverl	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet,_\(\) 1200 \qntsym 1200, 1202 \QPSpace,_\(\) 1000 \QPTime,_\(\) 999 \QPTL 1446 R \raisebox 858 \rangle 813, 815, 816, 818, 1409, 1575 \rbrace 821, 825 \rceil 934	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
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\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1300} \text{\coverline} \tag{1057, 1069, 1424, 1617} \text{\coverline} \text{\coverlin} \text{\coverline} \text{\coverline} \text{\coverline} \c	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet,	\seqoflet
\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1069}, 1424, 1617 \text{\coverline} \co	\QCTLP 1503 \QCTLS 1518 \QLTL 1457 \qntset 1201, 1202 \QntSet,	\seqoflet
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\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1017} \text{\coverline} \text{\coverline} \tag{1069}, \text{\coverline} \tag{1617} \text{\coverline} \cove	\QCTLP	\seqoflet
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\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1000} \text{\coverline} \tag{1069, 1071, 1618, 1619} \text{\coverline} \text{\coverline} \tag{1069, 1071, 1617, 1619} \text{\coverline} \text{\coverline} \tag{1045} \text{\coverline} \text{\coverline} \tag{1045} \text{\coverline} \coverlin	\QCTLP	\seqoflet \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
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\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1017} \text{\coverline} \text{\coverline} \tag{1069}, \text{\coverline} \tag{1617} \text{\coverline} \	\QCTLP	\seqoflet \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
\text{Outfum} \tag{1093, 1094} \text{\coverline} \tag{795} \tag{P} \text{P} \tag{1470} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{126} \text{\coverline} \tag{1476} \text{\coverline} \tag{1476} \text{\coverline} \tag{738} \text{\coverline} \tag{738} \text{\coverline} \tag{721} \text{\coverline} \tag{1004} \text{\coverline} \tag{1004} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1009} \text{\coverline} \tag{1017} \text{\coverline} \text{\coverline} \tag{1069}, \text{\coverline} \tag{1617} \text{\coverline} \	\QCTLP	\seqoflet \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\

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T \tab@false	\txtopar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	$\begin{array}{c} 1206,\ 1236,\ 1237,\ 1243,\\ 1249,\ 1250,\ 1256,\ 1262,\\ 1263,\ 1299,\ 1301,\ 1405,\\ 1406,\ 1407,\ 1464,\ 1465,\\ 1466,\ 1467,\ 1468,\ 1469,\\ 1470,\ 1471,\ 1472,\ 1473,\\ 1525,\ 1526,\ 1787,\ 1788\\ \verb \usrmthgrklet $
T \tab@false	\txtopar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthgrkupp 405 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270,
T \tab@false	\txtopar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthgrkupp 405 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 323 \txtsty 437 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 \U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1671 \UCGSL 1671 \UCTL 1492	$\begin{array}{c} 1206,\ 1236,\ 1237,\ 1243,\\ 1249,\ 1250,\ 1256,\ 1262,\\ 1263,\ 1299,\ 1301,\ 1405,\\ 1406,\ 1407,\ 1464,\ 1465,\\ 1466,\ 1467,\ 1468,\ 1469,\\ 1470,\ 1471,\ 1472,\ 1473,\\ 1525,\ 1526,\ 1787,\ 1788\\ \\ \verb vsrmthgrklet $
T \tab@false	\txtopar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	$\begin{array}{c} 1206,\ 1236,\ 1237,\ 1243,\\ 1249,\ 1250,\ 1256,\ 1262,\\ 1263,\ 1299,\ 1301,\ 1405,\\ 1406,\ 1407,\ 1464,\ 1465,\\ 1466,\ 1467,\ 1468,\ 1469,\\ 1470,\ 1471,\ 1472,\ 1473,\\ 1525,\ 1526,\ 1787,\ 1788\\ \\ \verb usrmthgrklet $
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 323 \txtsty 437 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 \U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1671 \UCGSL 1671 \UCTL 1492	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthgrklow 405 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatupp 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow 417, 559, 561 \usrmthlow 413 \usrmthlow 415
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 323 \txtsty 437 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtstyname 295, 314 \U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1671 \UCTL 1492 \UCTLP 1507	$\begin{array}{c} 1206,\ 1236,\ 1237,\ 1243,\\ 1249,\ 1250,\ 1256,\ 1262,\\ 1263,\ 1299,\ 1301,\ 1405,\\ 1406,\ 1407,\ 1464,\ 1465,\\ 1466,\ 1467,\ 1468,\ 1469,\\ 1470,\ 1471,\ 1472,\ 1473,\\ 1525,\ 1526,\ 1787,\ 1788\\ \\ \verb usrmthgrklet $
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 318, 320, 322, 324, 326, 327 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1671 \UBGSL 1671 \UBGSL 1671 \UBGSL 1671 \UBGSL 1688	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 318, 320, 322, 324, 326, 327 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1739 \UCGSL 1671 \UCTL 1492 \UCTLP 1507 \UCTLS 1522 \UDGSL 1688 \UEGSL 1722	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow 413 \usrmthupp
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 318, 320, 322, 324, 326, 327 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1739 \UCGSL 1671 \UCTL 1492 \UCTLP 1507 \UCTLS 1522 \UDGSL 1688 \UEGSL 1722 \UDGSL 1688 \UEGSL 1733	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow 417, 559, 561 \usrmthlow 413 \usrmthup 415 \usrmthup
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 318, 320, 322, 324, 326, 327 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1739 \UCGSL 1671 \UCTL 1492 \UCTLP 1507 \UCTLS 1522 \UDGSL 1688 \UEGSL 1722 \UFAGSL 1733 \UFBGSL 1733 \UFBGSL 1733	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow 417, 559, 561 \usrmthlow 415 \usrmthlow 415 \usrmthlow
T \tab@false	\txtopar 325 \txtpar 323 \txtsty 318, 320, 322, 324, 326, 327 \txtstyabr 437 \txtstycom 462 \txtstydef 425 \txtstyname 450 \txtsubsup 295, 314 U \UAGSL 1705 \UATL 1541 \UATLP 1556 \UATLS 1571 \UBF 1165 \UBGSL 1739 \UCGSL 1739 \UCGSL 1671 \UCTL 1492 \UCTLP 1507 \UCTLS 1522 \UDGSL 1688 \UEGSL 1722 \UDGSL 1688 \UEGSL 1733	1206, 1236, 1237, 1243, 1249, 1250, 1256, 1262, 1263, 1299, 1301, 1405, 1406, 1407, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1525, 1526, 1787, 1788 \usrmthgrklet 411 \usrmthgrklow 407 \usrmthlatlet 405 \usrmthlatlow 401 \usrmthlatlow 401 \usrmthlatlop 403, 1035, 1050, 1169, 1213, 1232, 1239, 1245, 1252, 1258, 1266, 1268, 1270, 1272, 1414, 1581, 1815 \usrmthlow 417, 559, 561 \usrmthlow 413 \usrmthup 415 \usrmthup

\mathbf{V}	\WATLS 1563	\wrdset 1836, 1837
\valset 1215, 1216	\WAutSet <u>1818</u>	\WrdSet, <u>1835</u>
\ValSet, _□ <u>1214</u>	\wautset 1818, 1819	\wrdsym 1835, 1837
\valsym 1214, 1216	\WCTL 1484	\wrlset 1416, 1417
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	\WCTLP 1499	\WrlSet, _□ <u>1415</u>
808, 809, 810, 811, 812,	\WCTLS 1514	\wrlsym 1415, 1417, 1418
813, 814, 815, 816, 817, 818	\wghset 1146, 1147	\wrpfig@false 111
\varepsilon 960	\WghSet, $_{\sqcup}$ \wghFun $\underline{1145}$	\wrpfig@true 110
\varnothing 834, 853	\wghsym 1145, 1147	\wrt <u>755</u>
\varset 1234, 1235	\widehat 799	\WSO 1311
\varsig 1231, 1232	\widetilde 801	\WSOL 1309
\VarSig, _□ <u>1231</u>	\WinSet <u>1051</u>	\WTL 1350
\varsym 1233, 1235	\winset 1051, 1052	
\vec <u>802</u>	\Wlogx	\mathbf{X}
\vert 821, 823	\wlogx	\X, _{\(\omega\)} 1464
\Viceversa <u>740</u>	\WMPL 1385	\XGSL 1768, 1772, 1774
\viceversa <u>723</u>	\WMSO 1329	$\xspace{$\setminus$xGSL}$ 1675 , 1692 , 1709 ,
\viz	\WMSOL 1327	1726, 1743, 1760, 1777
\vs	\WMTL 1362	\xi 1080, 1214, 1628
	\wotFun <u>1858</u>	\xspace 295
\mathbf{W}	\wotfun 1858, 1859	
\WATL 1533	\wp 1200	\mathbf{Y}
\WATLP 1548	\WPL 1373	\Y, _□ <u>1469</u>