# The file tulm.fdd for use with $\LaTeX 2_{\varepsilon}$ .\*

## LaTeX3 Project

### 2017/01/26

This file is maintained by the LATEX Project team. Bug reports can be opened (category latex) at https://latex-project.org/bugs.html.

#### 1 TUlmr

```
1 (*TUImr)
2 \DeclareFontFamily{TU}{lmr}{}
3 \DeclareFontShape{TU}{lmr}{m}{n}%
               \UnicodeFontFile{lmroman5-regular}{\UnicodeFontTeXLigatures}
     <5.5-6.5> \UnicodeFontFile{lmroman6-regular}{\UnicodeFontTeXLigatures}
     <6.5-7.5> \UnicodeFontFile{lmroman7-regular}{\UnicodeFontTeXLigatures}
6
     \label{lem:condef} $$ \To -8.5> \UnicodeFontFile{lmroman8-regular}_{\UnicodeFontTeXLigatures} $$
     <8.5-9.5> \UnicodeFontFile{lmroman9-regular}{\UnicodeFontTeXLigatures}
     <9.5-11> \UnicodeFontFile{lmroman10-regular}{\UnicodeFontTeXLigatures}
9
               \UnicodeFontFile{lmroman12-regular}{\UnicodeFontTeXLigatures}
10
     <15-> \UnicodeFontFile{lmroman17-regular}{\UnicodeFontTeXLigatures}
11
12
13 \DeclareFontShape{TU}{lmr}{m}{sl}%
               \UnicodeFontFile{lmromanslant8-regular}{\UnicodeFontTeXLigatures}
15
     <8.5-9.5> \UnicodeFontFile{\lmromans\lant9-regular}{\UnicodeFontTeXLigatures}
     <9.5-11> \UnicodeFontFile{lmromanslant10-regular}{\UnicodeFontTeXLigatures}
16
               \UnicodeFontFile{lmromanslant12-regular}{\UnicodeFontTeXLigatures}
17
     <15-> \UnicodeFontFile{lmromanslant17-regular}{\UnicodeFontTeXLigatures}
18
     }{}
19
20 \DeclareFontShape{TU}{lmr}{m}{it}%
               \UnicodeFontFile{lmroman7-italic}{\UnicodeFontTeXLigatures}
21
     <7.5-8.5> \UnicodeFontFile{lmroman8-italic}{\UnicodeFontTeXLigatures}
22
     <8.5-9.5> \UnicodeFontFile{lmroman9-italic}{\UnicodeFontTeXLigatures}
     <9.5-11> \UnicodeFontFile{lmroman10-italic}{\UnicodeFontTeXLigatures}
24
25
     <11->
             \UnicodeFontFile{lmroman12-italic}{\UnicodeFontTeXLigatures}
26
     ት{}
27 \DeclareFontShape{TU}{lmr}{m}{sc}%
    {<-> \UnicodeFontFile{lmromancaps10-regular}{\UnicodeFontTeXLigatures}}{}
29 \DeclareFontShape{TU}{lmr}{m}{ui}%
    <-> ec-lmu10}{}
31 \DeclareFontShape{TU}{lmr}{m}{scsl}%
    {<-> \UnicodeFontFile{lmromancaps10-oblique}{\UnicodeFontTeXLigatures}}{}
```

<sup>\*</sup>This file has version number v1.8, dated 2017/01/26.

```
33 \DeclareFontShape{TU}{lmr}{b}{n}
    {<-> \UnicodeFontFile{lmromandemi10-regular}{\UnicodeFontTeXLigatures}}{}
35 \DeclareFontShape{TU}{lmr}{b}{sl}
    {<-> \UnicodeFontFile{lmromandemi10-oblique}{\UnicodeFontTeXLigatures}}{}
37 \DeclareFontShape{TU}{lmr}{bx}{n}
              \UnicodeFontFile{lmroman5-bold}{\UnicodeFontTeXLigatures}
38
     <5.5-6.5> \UnicodeFontFile{lmroman6-bold}{\UnicodeFontTeXLigatures}
39
     <6.5-7.5> \UnicodeFontFile{lmroman7-bold}{\UnicodeFontTeXLigatures}
40
     <7.5-8.5> \UnicodeFontFile{lmroman8-bold}{\UnicodeFontTeXLigatures}
41
     <8.5-9.5> \UnicodeFontFile{lmroman9-bold}{\UnicodeFontTeXLigatures}
42
     <9.5-11> \UnicodeFontFile{lmroman10-bold}{\UnicodeFontTeXLigatures}
43
     <11->
             \UnicodeFontFile{lmroman12-bold}{\UnicodeFontTeXLigatures}
44
     ጉናጉ
45
46 \DeclareFontShape{TU}{lmr}{bx}{it}
    {<-> \UnicodeFontFile{lmroman10-bolditalic}{\UnicodeFontTeXLigatures}}{}
47
48 \DeclareFontShape{TU}{lmr}{bx}{sl}
    {<-> \UnicodeFontFile{lmromanslant10-bold}{\UnicodeFontTeXLigatures}}{}
50 \DeclareFontShape{TU}{lmr}{b}{it}
    {<->sub * lmr/b/sl}{}
52 (/TUImr)
```

#### 2 TUlmss

```
53 (*TUImss)
54 \DeclareFontFamily{TU}{lmss}{}
55 \DeclareFontShape{TU}{lmss}{m}{n}
    {<-8.5> \UnicodeFontFile{lmsans8-regular}{\UnicodeFontTeXLigatures}
     <8.5-9.5> \UnicodeFontFile{lmsans9-regular}{\UnicodeFontTeXLigatures}
     <9.5-11> \UnicodeFontFile{lmsans10-regular}{\UnicodeFontTeXLigatures}
59
     <11-15.5> \UnicodeFontFile{lmsans12-regular}{\UnicodeFontTeXLigatures}
     <15.5-> \UnicodeFontFile{lmsans17-regular}{\UnicodeFontTeXLigatures}
60
61
     }{}
62 \DeclareFontShape{TU}{lmss}{m}{it}
     {<->ssub*lmss/m/sl}{}
63
64 \DeclareFontShape{TU}{lmss}{m}{sl}
    {<-8.5> \UnicodeFontFile{lmsans8-oblique}{\UnicodeFontTeXLigatures}
65
66
     <8.5-9.5> \UnicodeFontFile{lmsans9-oblique}{\UnicodeFontTeXLigatures}
67
     <9.5-11> \UnicodeFontFile{lmsans10-oblique}{\UnicodeFontTeXLigatures}
68
     <11-15.5> \UnicodeFontFile{lmsans12-oblique}{\UnicodeFontTeXLigatures}
69
     <15.5-> \UnicodeFontFile{lmsans17-oblique}{\UnicodeFontTeXLigatures}
70
     }{}
71 \DeclareFontShape{TU}{lmss}{m}{sc}
    {<->sub*lmr/m/sc}{}
73 \DeclareFontShape{TU}{lmss}{b}{n}
    <->ssub * lmss/bx/n}{}
75 \DeclareFontShape{TU}{lmss}{b}{sl}
    <->ssub * lmss/bx/sl}{}
77 \DeclareFontShape{TU}{lmss}{b}{it}
    {<->ssub * lmss/bx/it}{}
79 \DeclareFontShape{TU}{lmss}{sbc}{n}
    {<-> \UnicodeFontFile{lmsansdemicond10-regular}{\UnicodeFontTeXLigatures}}{}
81 \DeclareFontShape{TU}{lmss}{sbc}{sl}
    {<-> \UnicodeFontFile{lmsansdemicond10-oblique}{\UnicodeFontTeXLigatures}}{}
83 \DeclareFontShape{TU}{lmss}{sbc}{it}
```

```
84 {<->ssub*lmss/sbc/sl}{}
85 \DeclareFontShape{TU}{lmss}{bx}{n}
    {<-> \UnicodeFontFile{lmsans10-bold}{\UnicodeFontTeXLigatures}}{}
87 \DeclareFontShape{TU}{lmss}{bx}{sl}
     {<-> \UnicodeFontFile{lmsans10-boldoblique}{\UnicodeFontTeXLigatures}}{}
89 \DeclareFontShape{TU}{lmss}{bx}{it}
    {<->ssub*lmss/bx/sl}{}
91 (/TUImss)
3
     TUlmssq
92 (*TUImssq)
93 \DeclareFontFamily{TU}{lmssq}{}
94 \DeclareFontShape{TU}{lmssq}{m}{n}
     {<-> \UnicodeFontFile{lmsansquot8-regular}{\UnicodeFontTeXLigatures}}{}
96 \DeclareFontShape{TU}{lmssq}{m}{sl}
     {<-> \UnicodeFontFile{lmsansquot8-oblique}{\UnicodeFontTeXLigatures}}{}
98 \DeclareFontShape{TU}{lmssq}{bx}{n}
     {<-> \UnicodeFontFile{lmsansquot8-bold}{\UnicodeFontTeXLigatures}}{}
100 \DeclareFontShape{TU}{lmssq}{bx}{sl}
     {<-> \UnicodeFontFile{lmsansquot8-boldoblique}{\UnicodeFontTeXLigatures}}{}
102 \DeclareFontShape{TU}{lmssq}{m}{it}
     {<->ssub*lmssq/m/sl}{}
104 \DeclareFontShape{TU}{lmssq}{bx}{it}
    {<->ssub*lmssq/bx/sl}{}
106 \DeclareFontShape{TU}{lmssq}{b}{n}
     {<->ssub * lmssq/bx/n}{}
108 \DeclareFontShape{TU}{lmssq}{b}{s1}
     {<->ssub * lmssq/bx/sl}{}
110 \DeclareFontShape{TU}{lmssq}{b}{it}
     <->ssub * lmssq/bx/it}{}
112 (/TUImssq)
     TUlmtt
113 (*TUImtt)
114 \DeclareFontFamily{TU}{lmtt}{%
115 \hyphenchar \font\m@ne
116 \fontdimen3\font\z@
117 \fontdimen4\font\z@
118 }
119 \ifx\lmtt@use@light@as@normal\@empty
120 \DeclareFontShape{TU}{lmtt}{sb}{n}
              \UnicodeFontFile{lmmono8-regular}{}
     {<-8.5>
121
```

<8.5-9.5> \UnicodeFontFile{lmmono9-regular}{}

<9.5-11> \UnicodeFontFile{lmmono10-regular}{}

{<-> \UnicodeFontFile{lmmonoslant10-regular}{}}{}

{<-> \UnicodeFontFile{lmmonocaps10-regular}{}}{}

<11-> \UnicodeFontFile{lmmono12-regular}{}

{<-> \UnicodeFontFile{lmmono10-italic}{}}{}

126 \DeclareFontShape{TU}{lmtt}{sb}{it}

128 \DeclareFontShape{TU}{lmtt}{sb}{sl}

130 \DeclareFontShape{TU}{lmtt}{sb}{sc}

122

123

124 125

```
132 \DeclareFontShape{TU}{lmtt}{sb}{scsl}
133 {<-> \UnicodeFontFile{lmmonocaps10-oblique}{}}{}
134 \DeclareFontShape{TU}{lmtt}{m}{n}
135 {<-> \UnicodeFontFile{lmmonolt10-regular}{}}{}
136 \DeclareFontShape{TU}{lmtt}{m}{it}
137 {<->sub*lmtt/l/sl}{}
138 \DeclareFontShape{TU}{lmtt}{m}{sl}
139 {<-> \UnicodeFontFile{lmmonolt10-oblique}{}}{}
140 \DeclareFontShape{TU}{lmtt}{c}{n}
    {<-> \UnicodeFontFile{lmmonoltcond10-regular}{}}{}
142 \ensuremath{\mbox{\sc TU}} {lmtt} {c} {it} \\
     {<->sub*lmtt/lc/sl}{}
144 \DeclareFontShape{TU}{lmtt}{c}{sl}
     {<-> \UnicodeFontFile{lmmonoltcond10-oblique}{}}{}
145
146 \else
147 \DeclareFontShape{TU}{lmtt}{m}{n}
     {<-8.5> \UnicodeFontFile{lmmono8-regular}{}
     <8.5-9.5> \UnicodeFontFile{lmmono9-regular}{}
      <9.5-11> \UnicodeFontFile{lmmono10-regular}{}
150
151
      <11-> \UnicodeFontFile{lmmono12-regular}{}
152
153 \DeclareFontShape{TU}{lmtt}{m}{it}
     {<-> \UnicodeFontFile{lmmono10-italic}{}}{}
154
155 \DeclareFontShape{TU}{lmtt}{m}{sl}
     {<-> \UnicodeFontFile{lmmonoslant10-regular}{}}{}
157 \DeclareFontShape{TU}{lmtt}{m}{sc}
     {<-> \UnicodeFontFile{lmmonocaps10-regular}{}}{}
159 \DeclareFontShape{TU}{lmtt}{m}{scsl}
    {<-> \UnicodeFontFile{lmmonocaps10-oblique}{}}{}
161 \DeclareFontShape{TU}{lmtt}{l}{n}
162 {<-> \UnicodeFontFile{lmmonolt10-regular}{}}{}
163 \DeclareFontShape{TU}{lmtt}{1}{it}
164 {<->sub*lmtt/l/sl}{}
165 \DeclareFontShape{TU}{lmtt}{1}{sl}
166 {<-> \UnicodeFontFile{lmmonolt10-oblique}{}}{}
167 \DeclareFontShape{TU}{lmtt}{lc}{n}
168 {<-> \UnicodeFontFile{lmmonoltcond10-regular}{}}{}
169 \DeclareFontShape{TU}{lmtt}{lc}{it}
170 {<->sub*lmtt/lc/sl}{}
171 \DeclareFontShape{TU}{lmtt}{lc}{sl}
172 {<-> \UnicodeFontFile{lmmonoltcond10-oblique}{}}{}
173 \fi
174 \DeclareFontShape{TU}{lmtt}{b}{n}
175 {<-> \UnicodeFontFile{lmmonolt10-bold}{}}{}
176 \DeclareFontShape{TU}{lmtt}{b}{it}
177 {<->sub*lmtt/b/sl}{}
178 \DeclareFontShape{TU}{lmtt}{b}{sl}
179 {<-> \UnicodeFontFile{lmmonolt10-boldoblique}{}}{}
180 \DeclareFontShape{TU}{lmtt}{bx}{it}
    {<->sub*lmtt/b/sl}{}
182 \DeclareFontShape{TU}{lmtt}{bx}{n}
183 {<->ssub*lmtt/b/n}{}
184 \DeclareFontShape{TU}{lmtt}{bx}{sl}
185 {<->ssub*lmtt/b/sl}{}
```

```
186 (/TUImtt)
```

#### **TUlmvtt** 5

```
187 (*TUImvtt)
188 \DeclareFontFamily{TU}{lmvtt}{}
189 \ifx\lmtt@use@light@as@normal\@empty
190 \DeclareFontShape{TU}{lmvtt}{sb}{n}
     <->\UnicodeFontFile{lmmonoprop10-regular}{}}{}
192 \DeclareFontShape{TU}{lmvtt}{sb}{s1}
     {<->\UnicodeFontFile{lmmonoprop10-oblique}{}}{}
193
194 \DeclareFontShape{TU}{lmvtt}{sb}{it}
     {<->sub*lmvtt/m/sl}{}
195
196 \DeclareFontShape{TU}{lmvtt}{m}{n}
     <->\UnicodeFontFile{lmmonoproplt10-regular}{}}{}
197
198 \DeclareFontShape{TU}{lmvtt}{m}{sl}
     {<->\UnicodeFontFile{lmmonoproplt10-oblique}{}}{}
200 \DeclareFontShape{TU}{lmvtt}{m}{it}
201
    {<->sub*lmvtt/1/s1}{}
202 \ensuremath{\setminus} \text{else}
203 \DeclareFontShape{TU}{lmvtt}{m}{n}
     {<->\UnicodeFontFile{lmmonoprop10-regular}{}}{}
205 \DeclareFontShape{TU}{lmvtt}{m}{sl}
    {<->\UnicodeFontFile{lmmonoprop10-oblique}{}}{}
207 \DeclareFontShape{TU}{lmvtt}{m}{it}
     {<->sub*lmvtt/m/sl}{}
209 \DeclareFontShape{TU}{lmvtt}{1}{n}
    {<->\UnicodeFontFile{lmmonoproplt10-regular}{}}{}
211 \DeclareFontShape{TU}{lmvtt}{1}{s1}
    {<->\UnicodeFontFile{lmmonoproplt10-oblique}{}}{}
213 \DeclareFontShape{TU}{lmvtt}{l}{it}
214 {<->sub*lmvtt/l/sl}{}
215 \fi
216 \DeclareFontShape{TU}{lmvtt}{b}{n}
     <->\UnicodeFontFile{lmmonoproplt10-bold}{}}{}
218 \DeclareFontShape{TU}{lmvtt}{b}{sl}
     <->\UnicodeFontFile{lmmonoproplt10-boldoblique}{}}{}
220 \DeclareFontShape{TU}{lmvtt}{b}{it}
    {<->sub*lmvtt/b/sl}{}
222 \DeclareFontShape{TU}{lmvtt}{bx}{n}
223 {<->ssub*lmvtt/b/n}{}
224 \DeclareFontShape{TU}{lmvtt}{bx}{sl}
225 {<->ssub*lmvtt/b/sl}{}
226 \DeclareFontShape{TU}{lmvtt}{bx}{it}
     {<->sub*lmvtt/b/sl}{}
228 (/TUImvtt)
     TUlmdh
6
229 \langle *TUImdh \rangle
230 \DeclareFontFamily{TU}{1mdh}{}%
```

```
231 \DeclareFontShape{TU}{lmdh}{m}{n}
    {<->
            \UnicodeFontFile{lmromandunh10-regular}{\UnicodeFontTeXLigatures}
232
    }{}
233
```