The **sidenotesplus** package

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Home Page: `https://github.com/anton-vrba/sidenotesplus`
Issues: `https://github.com/anton-vrba/sidenotesplus/issues`

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Abstract

A package to manage the margin notes, figures, tables and captions. Also body text can be extended into the margin for wide figures, tables and equation. Twoside symmetry is preserved. For biblatex users, routines for side references are included.

Note: Margin notes, figures and tables placements require up to three compilations to be as attended.

Note: This package is inspired by the package `sidenotes` authored by Andy Thomas and has many features in common. But, compatibility is not maintained between the two.

1 Usage

1.1 Package options

Below the options that can be passed to the package `sidenotesplus` with the package defaults listed first.

mark=	`alph, Alph, arabic, roman, Roman, fnsymbol`
font=	`rm, sf`
size=	`footnote, normal, small, script`
shape=	`up, it, sl`
ragged	switches to ragged outer margins
classic	switches to a classic look
sepdiff=	`1em`, or a valid length within reason
alerton	switches on the rendering of the margin alerts

The normal page style is that margin notes are left-right justified with the last line ragged to the outer edge. The option `ragged` changes this style to ragged-outer, that is the left page's marginal notes are `\raggedleft` and the right page's are `\raggedright`.

The marginal note's reference number or mark is placed in the margin separator, that is on the left page the mark is on the right hand side of the note. The option `classic` always places the mark to the left of the marginal note. This requires that the margin separator on the left page is slightly reduced if not enough space is availabe to the page outer edge.

1.2 Modified LaTeX commands

\marginpar   The LaTex command `marginpar{abc}` with only one parameter it is modified to `\marginpar[left styled abc]{right styled abc}` maintaining page symmetry. If called with two parameters nothing is changed

1.3 Marginal note commands

All marginal note commands have five options followed by the side note text enclosed in braces. Each option has its own enclosing symbols. The option sequence is fixed but not used options are omitted entirely, including their enclosing sequence. The option sequence is `*`, `||`, `<>`, `()`, `!!` plus `{}`.

`*`	margin note reference labels is omitted
`|float offset|`	floating offset, negative is towards page top
`<fixed offsett>`	fixed offset, negative is towards page top
`(custom mark)`	any custom mark
`!colour!`	any valid colour
`{content}`	margin note content

Note: All marginals placed with a fixed offset, that is with the `<fixed offset>` option can be overwritten by the marginals that float.

\sidenote   The `\sidenote` has five options `*|offset|<offsett>(custom mark)!colour!` all preceding the note `{content}`. The options are defined by their enclosures `*||,<>,(),!!` and must be in the order listed above.

Example: `\sitenote|10pt|($\bigstar$){text}` is valid

but `\sitenote($\bigstar$)|10pt|{text}` will give an error

\sidenotetext
\sidenotemark
\sidenotetextbefore   Similar to `\footnotemark` and `\footnotetext` the macros `\sidenotemark`, `\sidenotetext` and `\sidenotetextbefore` are provided, the latter two have the same options as `\sidenote`. This is useful in placing margin notes in environments where the `\sidenote` is not permitted. The margin note is not positioned by the `\sidenotemark`, but rather it is positioned relative to `\sidenotetext` or `\sidenotetextbefore`

\sidealert   These are temporary margin notes rendered in red or by the user's defined `!colour!`. The package option `alerton` needs to be specified in the document preamble. The alert mark has zero width so it does not alter the main text layout and is also rendered in colour. The alert mark is either numeric arabic (default), or alphabetic if the side note mark is set to arabic

\sidepar   Starts a new paragraph in the side note, whereas `\\` begins a new line without indentation.

\sidecaption   The `\sidecaption*<offset>[short form]{long form}` macro can be used from within figure or table environment and the caption is placed in the margin adjacent to the figure or table The float `||` is not an option here. Therefore, the caption might overlap with other marginals. Then, these marginals have to be adjusted with offset parameters. The formatting of the caption is done by the *caption* package by defining a *sidecaption* style. Please refer to the documentation of the caption package for information on styles. The macro can be starred, which is analog to the regular starred caption (no numbering, no tof entry). Use `\raggedinner` within the figure, or table, environment to place these near the caption.

\raggedinner
\raggedouter   Are raggedleft or raggedright modes depending if document is one or two sided

and if the page is even or odd.

marginfigure   The `marginfigure` environment puts a figure and its caption in the margin. Instead of `\begin{figure}[htbp]` use `\begin{marginfigure}|offset|<offset>`. Again, using an offset value switches the behaviour from float to fixed position. The marginfigure has its own caption style named *marginfigure*.

margintable   The `margintable` environment works similar to marginfigure, but with table environments. Use `\begin{marginfigure}|offset|<offset>` instead of `\begin{table}[htbp]`, its caption style is named *margintable*.

\margincaption   The `\margincaption` macro is used only in the two above environments (`marginfigure` and `marginfigure`) and it is not to be confused with `\sidecaption`. It as the same options as `\caption`

figure*   The `figure*` environment is used to position figures across the full page, i.e. the text width plus the margin. The algorithm has to distinguish between recto and verso (left and right) pages and might need up to three LaTeX runs to provide
table*   the desired result. The corresponding caption style is called *widefigure*. The sister environment for tables is `table*`. Use *widetable* to change its caption style.
text*   The `text*` environment is used to render text across up to the full page width. Page breaks are not permitted within this environment. This environment is useful when extra width for equations is required. The environment `\begin{text*}[0.5]` extends the text width by `0.5*(\marginparwidth+\marginparsep)`, omitting the option is equivalent to specifying the option `[1]`,
\sidecite   The `\sidecite`, `\sidecitet` and `\sidecitet*` provide citing references in
\sidecitet   the margin and uses the package `biblatex` which has to be setup outside the
\sidecitet*   `sitenotesplus` package. Example settings in the document preamble:
```
\usepackage[english]{babel}
\usepackage[backend=biber,style=nature]{biblatex}
\addbibresource{mybibfile.bib}
```
The above three cite-commands use the same options as sidenote followed by the two options of the `biblatex`'s `\fullcite` command. Margin citations are always with marks, hence the `*` takes new meaning here. The command `\sidecite{BibReference}` and `\sidecite*{BibReference}` are equivalent, and both place a side note mark and the citation reference in the side margin. `\sidecitet{BibReference}` renders: Author[a], where 'a' is side note mark, whereas `\sidecitet*{BibReference}` is the possessive version and renders: Author's[a].

1.4 Packages loaded

marginnote supports an alternative to `\marginpar` and creates non floating notes in the margin.

mparhack to get `\marginpar` right

caption allows to set figure and table captions in the margin and allows easier formatting of these captions. Please refer to the *caption* manual for details on styles.

xparse is used to take advantage of the improved LaTeX3 syntax. All macros and environments are defined using this package.

l3keys2e provides a key/value mechanism

xspace provides the command `\xspace`

changepage is used to correctly shift figure* and table*. It has to use the option [strict] to work properly. This might lead to an option clash, if the same package is loaded without this option.

ifoddpage provides the command `\ifoddpage`

etoolbox provides the command `\patchcmd`

calc provides calculation such as adding lengths

2   Implementation

```
1 \newcommand \snptest {{\upshape Figure \thefigure:} And some text\xspace}
2
3 \ExplSyntaxOn
4 \DeclareExpandableDocumentCommand{\IfNoValueOrEmptyTF}{ m m m }
5 {
6  \IfNoValueTF{#1}
7   {#2}
8   {\tl_if_empty:nTF {#1} {#2} {#3}}
9 }
10 \setcounter{topnumber}{4}
11 \setcounter{bottomnumber}{4}
12 \setcounter{totalnumber}{8}
```

`\snp@sidenoteformat` —

```
13 \NewDocumentCommand \snp@sidenoteformat {} {%
14     \snp@size\snp@shape\snp@font\leavevmode%
15     \lineskip=0pt \lineskiplimit=0pt %
16     \tolerance=2000 \hyphenpenalty=300 \exhyphenpenalty=300%
17     \doublehyphendemerits=100000%
18     \finalhyphendemerits=\doublehyphendemerits
19     }
20 \NewDocumentCommand \snp@sideformat {} {}
21 \NewDocumentCommand \snp@sidecolor {} {}
22
```

– —

```
23 \NewDocumentCommand \snp@symbol {} {\alph}
24 \NewDocumentCommand \snp@alertsymbol {} {\arabic}
25 \NewDocumentCommand \snp@font {} {}
26 \NewDocumentCommand \snp@shape{} {\itshape}
27 \NewDocumentCommand \snp@size {} {\footnotesize}
28 \NewDocumentCommand \snp@leftmarginstyle{} {}
29 \NewDocumentCommand \snp@rightmarginstyle{} {}
30 %
31 %
32 \bool_new:N \l@snp@margincaption
33 \bool_new:N \l@snp@alerton
34 \bool_new:N \l@snp@alertmarkon
35 \bool_new:N \l@snp@ragged
36 \bool_new:N \l@snp@symmetric
37 \bool_new:N \l@snp@page
38
39 \bool_set_false:N \l@snp@margincaption
40 \bool_set_false:N \l@snp@alerton
41 \bool_set_false:N \l@snp@alertmarkon
42 \bool_set_false:N \l@snp@ragged
43 \bool_set_true:N \l@snp@symmetric
44
```

```
45
46 %
47 \newlength{\snp@marginsepdiff}
48 \setlength{\snp@marginsepdiff}{1ex}

49 \keys_define:nn { sidenoteplus }
50 {
51  mark .code:n = \str_case:nn {#1}%
52      { {fnsymbol}{\RenewDocumentCommand \snp@symbol {}{\fnsymbol}}%
53        {Alph}{\RenewDocumentCommand \snp@symbol {}{\Alph}}%
54        {arabic}{\RenewDocumentCommand \snp@symbol {}{\arabic}
55               \RenewDocumentCommand \snp@alertsymbol {} {\alph}}%
56        {Roman}{\RenewDocumentCommand \snp@symbol {}{\Roman}}%
57        {roman}{\RenewDocumentCommand \snp@symbol {}{\roman}}%
58        {Other}{}  },
59  font .code:n = \str_case:nn {#1}%
60      { {sf}{\RenewDocumentCommand \snp@font {}{\sffamily}}%
61        {Other}{} },
62  size .code:n = \str_case:nn {#1}%
63      { {small}{\RenewDocumentCommand \snp@size {}{\small}}%
64        {script}{\RenewDocumentCommand \snp@size {}{\scriptsize}}%
65        {normal}{\RenewDocumentCommand \snp@size {}{\normalsize}}%
66        {Other}{} },
67  shape .code:n = \str_case:nn {#1}%
68      { {sl}{\RenewDocumentCommand \snp@shape{}{\slshape}}%
69        {up}{\RenewDocumentCommand \snp@shape{}{\upshape}}%
70        {it}{\RenewDocumentCommand \snp@shape{}{\itshape}}%
71        {Other}{} },
72  sepdiff .code:n = \setlength{\snp@marginsepdiff}{#1},
73  classic .code:n = \bool_set_false:N \l@snp@symmetric,
74  ragged .code:n = { \RenewDocumentCommand \snp@leftmarginstyle {}{\raggedleft}
75                     \RenewDocumentCommand \snp@rightmarginstyle {}{\raggedright}
76                     \bool_set_true:N \l@snp@ragged  },
77  alerton .code:n = {\bool_set_true:N \l@snp@alerton},
78 }
79 \ProcessKeysOptions { sidenoteplus }
80 \bool_if:NTF \l@snp@ragged
81     {\setlength{\snp@marginsepdiff}{0pt} \bool_set_false:N \l@snp@symmetric}
82     {\relax}
83 \bool_if:NTF \l@snp@symmetric {\setlength{\snp@marginsepdiff}{0pt}}{\relax}
84 \newcounter{sidenote}[page] % make a counter
85 \setcounter{sidenote}{0} % init the counter
86 \newcounter{sidealert}[page] % make a counter
87 \setcounter{sidealert}{0} % init the counter
```

\snp@putmarkintext —

```
88 \NewDocumentCommand \snp@putmarkintext { m }
89 {
90     \leavevmode
91     \ifhmode
92         \edef \x@sf {\the \spacefactor }
93         \nobreak
94     \fi
95     \bool_if:NTF \l@snp@alertmarkon
96     {\makebox[0pt]{\raisebox{0.3ex}{\textsuperscript {\normalfont \bf ---~{#1}~---\kern-0.6e
97     {\hbox {\textsuperscript {\normalfont #1 }}}}
98     \ifhmode
99         \spacefactor \x@sf
100    \fi
101    \relax
102 }
```

```
103 \NewDocumentCommand \snp@multisign { } {3sp}
```

```
104 \NewDocumentCommand \snp@multimarker { }
105 {
106   \kern-\snp@multisign
107   \kern\snp@multisign\relax
108 }
```

```
109 \NewDocumentCommand \snp@multichecker { }
110 {
111   \dim_compare:nNnTF \lastkern = \snp@multisign
112   {\snp@putmarkintext{,}}
113   {}
114 }
```

```
115 \NewDocumentEnvironment{@snp@llr} {}%
116 {
117   \setlength{\parindent}{0pt}
118   \setlength{\leftskip}{0pt plus 1fil}
119   \setlength{\rightskip}{0pt plus -1fil}
120 }{\par}
```

```
121 \let\oldmarginpar\marginpar
122 \renewcommand{\marginpar}[2][]{
123   \if\relax\detokenize{#1}\relax
124     \oldmarginpar[\snp@leftmarginstyle\snp@sidenoteformat{#2}]%
125                 {\snp@rightmarginstyle\snp@sidenoteformat{#2}}%
126   \else%two parameters, let them use their styling
127     \oldmarginpar[{#1}]{#2}%
128   \fi%
129 }
```

```
130 \renewcommand*{\raggedleftmarginnote}{}
131 \renewcommand*{\raggedrightmarginnote}{}
132 \renewcommand*{\marginfont}{}
133
134 \NewDocumentCommand \snp@placemarginal {d!! m m }
135 {
136   \IfNoValueOrEmptyTF{#1}
137   {
138     \if@twoside
139       \snp@isoddpage
140       {
141         \IfNoValueOrEmptyTF{#2}
142         {\marginpar{  #3 }}
143         {\marginnote{\snp@sidenoteformat #3}[#2]}
144       }
145       {
146       \bool_if:NTF \l@snp@symmetric
147       {
148         \IfNoValueOrEmptyTF{#2}
149         {\marginpar{\begin{@snp@llr} #3\end{@snp@llr}}}
150         {\marginnote{\begin{@snp@llr}\snp@sidenoteformat #3\end{@snp@llr}}[#2]}
```

```
151        }
152
153        {
154            \IfNoValueOrEmptyTF{#2}
155            {\marginpar{ #3}}
156            {\marginnote{\snp@sidenoteformat #3}[#2]}
157        }
158        }
159    \else
160        \IfNoValueOrEmptyTF{#2}
161        {\marginpar{ #3}}
162        {\marginnote{\snp@sidenoteformat #3}[#2]}
163    \fi
164    }
165    {
166    \if@twoside
167        \snp@isoddpage
168        {
169            \IfNoValueOrEmptyTF{#2}
170            {\marginpar{  \textcolor{#1}{#3} }}
171            {\marginnote{\snp@sidenoteformat  \textcolor{#1}{#3}}[#2]}
172        }
173        {
174        \bool_if:NTF \l@snp@symmetric
175        {
176            \IfNoValueOrEmptyTF{#2}
177            {\marginpar{\begin{@snp@llr} \textcolor{#1}{#3}\end{@snp@llr}}}
178            {\marginnote{\begin{@snp@llr}\snp@sidenoteformat  \textcolor{#1}{#3}\end{@snp@llr}
179        }
180        {
181            \IfNoValueOrEmptyTF{#2}
182            {\marginpar{\textcolor{#1}{#3}}}
183            {\marginnote{ \snp@sidenoteformat  \textcolor{#1}{#3}}[#2]}
184        }
185        }
186    \else
187        \IfNoValueOrEmptyTF{#2}
188        {\marginpar{ \textcolor{#1}{#3}}}
189        {\marginnote{ \snp@sidenoteformat  \textcolor{#1}{#3}}[#2]}
190    \fi
191    }
192 }
```

\sidepar   —

```
193 \NewDocumentCommand \sidepar {}
194 {
195   \\\makebox[1em]{}
196 }
```

\sidenote   —

```
197 \NewDocumentCommand \sidenote {s d|| d<> d() d!! m  }
198 {
199   \IfBooleanTF{#1}
200   { % starred
201   \snp@sidenotemark*(#4)
202   \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6}
203   }{ % unstarred
204 \IfNoValueOrEmptyTF{#5} {
205   \snp@sidenotemark(#4)
206   \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6}
```

```
207   \snp@multimarker }
208   {
209   \snp@sidenotemark(#4)!#5!
210   \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6}
211   \snp@multimarker }
212
213   }
214 }
```

```
215 \NewDocumentCommand \sidealert {s d|| d<> d() d!! m  }
216 {
217   \bool_if:NTF \l@snp@alerton
218     {
219     \bool_set_true:N \l@snp@alertmarkon
220      \IfNoValueOrEmptyTF{#5}
221      {
222        \IfBooleanTF{#1}
223        { % starred
224          \snp@sidenotemark*(#4)
225          \snp@sidenotetext[*]|#2|<#3>(#4)!Red!{#6}
226        }{ % unstarred
227          \snp@sidenotemark(#4)!Red!{}
228          \snp@sidenotetext[]|#2|<#3>(#4)!Red!{#6}
229          \snp@multimarker
230        }
231      }{ \IfBooleanTF{#1}
232        { % starred
233          \snp@sidenotemark*(#4)
234          \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6}
235        }{ % unstarred
236          \snp@sidenotemark(#4)!#5!{}
237          \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6}
238          \snp@multimarker
239        }
240      }
241    }
242    {\relax}
243    \bool_set_false:N \l@snp@alertmarkon
244 }
```

```
245 \NewDocumentCommand \sidenotemark {s d() d!! m }
246 {
247   \IfBooleanTF{#1}
248   { % starred
249     \relax}
250   {% unstarred
251     \IfNoValueOrEmptyT{#3}
252       {\snp@sidenotemark (#2)}
253       {\snp@sidenotemark !#3!( #2)}
254   }
255   \xspace
256 }
```

```
257 \NewDocumentCommand \snp@symbolnoteoralert {}{}
258 \NewDocumentCommand \snp@sidenotemark {s d() d!! }
259 {
260   \IfBooleanTF{#1}
```

8

```
261   { % starred
262     \relax}
263   {% unstarred
264     \snp@multichecker
265     \bool_if:NTF \l@snp@alertmarkon
266       { \refstepcounter{sidealert}
267         \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@alertsymbol{sidealert}} }
268       { \refstepcounter{sidenote}
269         \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@symbol{sidenote}} }
270     \IfNoValueOrEmptyTF{#3}
271     {
272       \IfNoValueOrEmptyTF{#2}
273         { \snp@putmarkintext{\snp@symbolnoteoralert } }
274         { \snp@putmarkintext{#2} }
275     }{
276       \IfNoValueOrEmptyTF{#2}
277         { \textcolor{#3} {\snp@putmarkintext{\snp@symbolnoteoralert}} }
278         { \textcolor{#3} {\snp@putmarkintext{#2}} }
279     }
280     \snp@multimarker
281   }
282 }
```

\snp@onelineup —

```
283 \NewDocumentCommand{\snp@onelineup}{}
284   {\par \vspace*{-1\baselineskip}}
285 \NewDocumentCommand{\snp@onexlineup}{}
286   {\par \vspace*{-1.5\baselineskip}}
```

\snp@leftnotelabel —

```
287 \NewDocumentCommand{\snp@leftnotelabel}{ m }
288   {\makebox[0em][l]{\hspace*{0.9ex}#1}}
```

\snp@rightnotelabel —

```
289 \NewDocumentCommand{\snp@rightnotelabel}{ m }
290   {\makebox[0em][r]{#1\hspace*{0.9ex}}}
```

\snp@justifiedleftnotelabel —

```
291 \NewDocumentCommand{\snp@justifiedleftnotelabel}{ m }
292   {\makebox[0em][l]{\hspace*{\marginparwidth+0.9ex}#1}}
```

\sidenotetext —

```
293 \NewDocumentCommand \sidenotetext {s d|| d<> d() d!! m  } {
294   \IfBooleanTF{#1}
295     { \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6} }
296     { \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6} }
297 }
```

\sidenotetextbefore —

```
298 \NewDocumentCommand \sidenotetextbefore {s d|| d<> d() d!! m  } {
299   \refstepcounter{sidenote}
300   \IfBooleanTF{#1}
301     { \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6} }
302     { \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6} }
303   \addtocounter{sidenote}{-1}
304 }
```

```latex
305 \DeclareExpandableDocumentCommand{\IfsTF}{ m m m }
306 {
307  \IfNoValueTF{#1}
308   {#2}
309   {\tl_if_empty:nTF {#1} {#2} {#3}}
310 }
```

—

```latex
311 \newlength{\d@snp@offset}
```

\snp@sidenotetext —

```latex
312 \NewDocumentCommand \snp@sidenotesymbol {}{}
313 \NewDocumentCommand \snp@sidenotetext {o d|| d<> d() d!! m } {
314   \bool_if:NTF \l@snp@alertmarkon
315   {
316   \IfNoValueOrEmptyTF{#4}
317     {\RenewDocumentCommand \snp@sidenotesymbol {}{-~\snp@alertsymbol{sidealert}~-}}
318     {\RenewDocumentCommand \snp@sidenotesymbol {}{-~#4~-}}
319   }
320   {
321   \IfNoValueOrEmptyTF{#4}
322     {\RenewDocumentCommand \snp@sidenotesymbol {}{\snp@symbol{sidenote}}}
323     {\RenewDocumentCommand \snp@sidenotesymbol {}{#4}}
324   }
325   \IfNoValueOrEmptyTF{#2}
326     {\relax}
327     {\setlength{\d@snp@offset}{#2} \vspace*{ \d@snp@offset }}
328   \bool_if:NTF \l@snp@ragged
329   {
330   \if@twoside
331     \snp@isoddpage
332     {%odd page
333      {  \snp@placemarginal!#5!{#3}%--
334           {\snp@rightnotelabel{%
335             \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
336      }
337     }
338     {%even page
339      {\snp@placemarginal!#5!{#3}%--
340           {\snp@justifiedleftnotelabel{\normalfont%
341             \IfsTF{#1}{\snp@sidenotesymbol}{\relax}}
342             \hspace*{\marginparwidth}  \snp@onelineup#6}
343      }
344     }
345   \else %not twoside
346     {\snp@placemarginal!#5!{#3}%--
347           {\snp@rightnotelabel{\normalfont%
348             \IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
349     }
350   \fi % ends if@twoside
351   }
352   {
353   \if@twoside
354     \snp@isoddpage
355     {%odd page
356       {\snp@placemarginal!#5!{#3}%--
357             {\snp@rightnotelabel{
358               \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
359       }
360      }
```

```
361        {%even page
362          \bool_if:NTF \l@snp@symmetric
363            {
364              {\snp@placemarginal!#5!{#3}%--
365                    {\snp@justifiedleftnotelabel{
366                            \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax} }
367                     \hspace*{\marginparwidth}\snp@onelineup#6
368                    }
369              }
370            }
371            {
372              {  \snp@placemarginal!#5!{#3}%--
373                    {\snp@rightnotelabel{
374                        \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6 }
375              }
376            }
377        }
378      \else
379        {  \snp@placemarginal!#5!{#3}%--
380           {\snp@rightnotelabel{
381              \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
382        }
383      \fi
384      }
385    \IfNoValueOrEmptyTF{#2}
386      {\relax}
387      { \setlength{\d@snp@offset}{#2 *(-1)} \vspace*{{\d@snp@offset}}}
388 }
```

\snp@raggedcaption —

```
389
390 \NewDocumentCommand \snp@raggedcaption {m }
391 {
392    \if@twoside
393      \snp@isoddpage {#1}
394        {\bool_if:NTF \l@snp@symmetric {\begin{@snp@llr}#1\end{@snp@llr}} {#1}}
395    \else #1 \fi
396 }

397 \DeclareCaptionStyle{sidecaption}{font=footnotesize}
```

\sidecaption —

```
398 \NewDocumentCommand \snp@entrycap {} {}
399 \NewDocumentCommand \snp@offsetcap {} {}
400 \NewDocumentCommand \sidecaption {s d|| d<> d!! o m} {
401    \captionsetup{style=sidecaption}
402    \IfBooleanTF{#1}
403    { %starred
404    \marginnote{\caption*{\snp@raggedcaption{#6}}}
405          [\IfNoValueOrEmptyTF{#3} {0pt} {#3}]
406    }
407    { %unstarred
408    \marginnote{\caption[\IfNoValueOrEmptyTF{#5} {#6} {#5}]
409                    {\snp@raggedcaption{#6}}}
410          [\IfNoValueOrEmptyTF{#3} {0pt} {#3}]
411    }
412 }
```

\istwosided —

```
413 \NewDocumentCommand \istwosided {m m} {
```

```
414 \if@twoside #1 \else #2 \raggedleft \fi
415 }
```

`\raggedinner` —

```
416 \NewDocumentCommand \raggedinner {} {
417 \if@twoside
418     \snp@isoddpage {\raggedleft}{\raggedright}
419 \else
420     \raggedleft
421 \fi
422 }
```

`\raggedouter` —

```
423 \NewDocumentCommand \raggedouter {} {
424 \if@twoside
425     \snp@isoddpage {\raggedright}{\raggedleft}
426 \else
427     \raggedleft
428 \fi
429 }
```

`\margincaption` —

```
430 \newlength \l@snp@belowcaption
431 \NewDocumentCommand \margincaption {s o m }
432 {
433 \setlength \l@snp@belowcaption \belowcaptionskip
434 \setlength{\belowcaptionskip}{1ex plus 0.3ex minus -0.1ex}
435   \IfBooleanTF{#1}
436   { %starred
437     \if@twoside
438         \snp@isoddpage
439         {
440           \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*[#2]{#3}}
441         }
442         {
443         \bool_if:NTF \l@snp@symmetric
444         {
445           \IfNoValueOrEmptyTF{#2}
446             {\caption*[#3]{\begin{@snp@llr}#3\end{@snp@llr}}}
447             {\caption*[#2]{\begin{@snp@llr}#3\end{@snp@llr}}}
448         }
449         {
450           \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*[#2]{#3}}
451         }
452         }
453     \else
454         \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*[#2]{#3}}
455     \fi
456   }
457   { %unstarred
458     \if@twoside
459         \snp@isoddpage
460         {
461           \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption[#2]{#3}}
462         }
463         {
464         \bool_if:NTF \l@snp@symmetric
465         {
466           \IfNoValueOrEmptyTF{#2}
467             {\caption[#3]{\begin{@snp@llr}#3\end{@snp@llr}}}
```

```
468                {\caption[#2]{\begin{@snp@llr}#3\end{@snp@llr}}}
469            }
470            {
471                \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption[#2]{#3}}
472            }
473        }
474     \else
475        \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption[#2]{#3}}
476     \fi
477   }
478 \setlength \belowcaptionskip \l@snp@belowcaption
479 }

480  \newsavebox{\b@snp@marginfigurebox}
481 \DeclareCaptionStyle{marginfigure}{font=footnotesize,skip=1ex}
```

```
482 \NewDocumentEnvironment{marginfigure} { d|| d<> }
483 { % begin{} part
484   \begin{lrbox}{\b@snp@marginfigurebox}
485     \begin{minipage}{\marginparwidth}
486       \captionsetup{type=figure,style=marginfigure}
487 }

488 { % end{} part
489    \end{minipage}%
490   \end{lrbox}%
491
492   \IfNoValueOrEmptyTF{#1}
493      {\relax}
494      {\setlength{\d@snp@offset}{#1} \vspace*{ \d@snp@offset }}
495   \snp@placemarginal{#2}{\usebox{\b@snp@marginfigurebox} }
496   %~\snp@onexlineup \snptest }
497   \IfNoValueOrEmptyTF{#1}
498      {\relax}
499      { \setlength{\d@snp@offset}{#1 *(-1)} \vspace*{{\d@snp@offset}}}
500 }
```

−

Figure

```
501 \newsavebox{\b@snp@margintablebox}
502 \DeclareCaptionStyle{margintable}{font=footnotesize}
```

```
503 \NewDocumentEnvironment{margintable} { d|| d<> d() }
504 { % begin part
505   \begin{lrbox}{\b@snp@margintablebox}
506      \snp@sidenoteformat
507     \begin{minipage}{\marginparwidth}
508       \captionsetup{type=table,style=margintable}
509 }

510 { % end part
511    \end{minipage}
512   \end{lrbox}
513   \IfNoValueOrEmptyTF{#1}
514      {\relax}
515      {\setlength{\d@snp@offset}{#1} \vspace*{ \d@snp@offset }}
516   \snp@placemarginal{#2}{\usebox{\b@snp@margintablebox} }
517   \IfNoValueOrEmptyTF{#1}
518      {\relax}
```

```
519        {\setlength{\d@snp@offset}{#1 *(-1)} \vspace*{{\d@snp@offset}}}}
520 %
521
522 %
523 }
```

—

```
524 \AtBeginDocument{%
525 \newlength{\d@snp@extrawidth}
526 \setlength{\d@snp@extrawidth}{\marginparwidth}
527 \addtolength{\d@snp@extrawidth}{\marginparsep}  }
```

\snp@isoddpage   —

```
528 \NewDocumentCommand \snp@isoddpage {m m}
529        { \checkoddpage\ifoddpage #1 \else #2 \fi }
```

@snp@autoadjustwidth   —

```
530 \NewDocumentEnvironment{@snp@autoadjustwidth}{ m m }%
531 { % begin part
532 \begin{adjustwidth}{0pt}{0pt}
533   \if@twoside
534     \snp@isoddpage{\begin{adjustwidth}{#1}{-#2}}%
535        {\begin{adjustwidth}{-#2}{#1}}
536   \else
537     \begin{adjustwidth}{#1}{-#2}
538   \fi
539 }
540 { % end part
541   \end{adjustwidth}\end{adjustwidth}
542 }
```

text*   —

```
543 \NewDocumentEnvironment{text*}{ o }%
544 { % begin part
545  \begin{adjustwidth}{0pt}{0pt}
546  \IfNoValueOrEmptyTF{#1}
547  {
548  \if@twoside
549    \snp@isoddpage{\begin{adjustwidth}{0pt}{-\d@snp@extrawidth}}%
550       {\begin{adjustwidth}{-\d@snp@extrawidth*}{0pt}}
551  \else
552     \begin{adjustwidth}{0pt}{-\d@snp@extrawidth*}
553  \fi
554  }
555  {
556  \if@twoside
557    \snp@isoddpage{\begin{adjustwidth}{0pt}{-\d@snp@extrawidth*#1}}%
558       {\begin{adjustwidth}{-\d@snp@extrawidth*#1}{0pt}}
559  \else
560     \begin{adjustwidth}{0pt}{-\d@snp@extrawidth*#1}
561  \fi
562  }
563 }
564 {  % end part
565 \end{adjustwidth}\end{adjustwidth} \snp@placemarginal{}{}
566 }
```

```
          figure*
          567 \RenewDocumentEnvironment{figure*}{ O{htbp} }
          568 {
          569    \begin{figure}[#1]
          570    \begin{@snp@autoadjustwidth}{}{\d@snp@extrawidth}
          571    \begin{minipage}[c]{\linewidth}
          572    \centering
          573    \captionsetup{ margin={\d@snp@extrawidth/2,\d@snp@extrawidth/2}}
          574 }{  % end part
          575    \end{minipage}
          576    \end{@snp@autoadjustwidth}
          577    \end{figure}
          578    \snp@placemarginal{}{}
          579  }


          table*
          580 \RenewDocumentEnvironment{table*}{O{htbp} }
          581 {
          582    \begin{table}[#1]
          583    \begin{@snp@autoadjustwidth}{}{\d@snp@extrawidth}
          584    \if@twoside
          585        \snp@isoddpage{\raggedright}{\raggedleft}
          586        \snp@isoddpage
          587           {\captionsetup{margin={0pt,0pt}}  }
          588           {\captionsetup{margin={-\d@snp@extrawidth,\d@snp@extrawidth}}  }
          589    \else
          590       \raggedright \captionsetup{margin={0pt,0pt}}
          591    \fi
          592 }
          593 { % end part
          594    \end{@snp@autoadjustwidth}
          595    \end{table}
          596 }

   \sidecite   —
          597 \NewDocumentCommand \snp@before {} {}
          598 \NewDocumentCommand \snp@after {} {}
          599 \NewDocumentCommand \sidecite {s d|| d<> d() d!! o o m }

          600 { \IfNoValueOrEmptyTF{#6}
          601   {\RenewDocumentCommand \snp@before {} {}}
          602   {\RenewDocumentCommand \snp@before {} {#6}}
          603   \IfNoValueOrEmptyTF{#7}
          604   {\RenewDocumentCommand \snp@after {} {}}
          605   {\RenewDocumentCommand \snp@after {} {#7}}
          606   \sidenote|#2|<#3>(#4)!#5!{\upshape\fullcite[\snp@before][\snp@after]{#8}}
          607 }

   \sidecitet   —
          608 \NewDocumentCommand \sidecitet {s d|| d<> d() d!! o o m }
          609 { \IfNoValueOrEmptyTF{#6}
          610   {\RenewDocumentCommand \snp@before {} {}}
          611   {\RenewDocumentCommand \snp@before {} {#6}}
          612   \IfNoValueOrEmptyTF{#7}
          613   {\RenewDocumentCommand \snp@after {} {}}
          614   {\RenewDocumentCommand \snp@after {} {#7}}
          615   \IfBooleanTF{#1}
          616   {
          617      \citeauthor{#8}'s\sidenote|#2|<#3>(#4)!#5!
          618          {\upshape\fullcite[\snp@before][\snp@after]{#8}}
```

```
619    }
620    {
621      \citeauthor{#8}\sidenote|#2|<#3>(#4)!#5!
622            {\upshape\fullcite[\snp@before][\snp@after]{#8}}
623    }
624 }

625 \newlength\marginparsepodd
626 \newlength\marginparsepeven
627
628 \setlength{\marginparsepodd}{\marginparsep}
629 \setlength{\marginparsepeven}{\marginparsep-\snp@marginsepdiff}
630
631 \makeatletter
632 % First we patch \@addmarginpar
633 % The \patchcmd command does a search and replace.
634 \patchcmd{\@addmarginpar}                    % In this command
635          {\mph@orig@addmarginpar}           % ... replace this...
636          {\if@twoside\ifodd\c@page\relax    % ... with this
637              \marginparsep=\marginparsepodd  % Page is odd
638            \else
639              \marginparsep=\marginparsepeven  % Page is even
640            \fi
641          \else
642            \marginparsep=\marginparsepodd
643          \fi
644          \mph@orig@addmarginpar}
645          {}                                  % success
646          {\message{Error! Couldn't hook into command  % failure
647              '\string\@addmarginpar'}}
648
649 % Now we patch \@mn@@@marginnote
650 {%% Group to keep patching commands local
651   %
652   % Here we use a little trick to repeatedly patch the \@mn@@@marginnote
653   % command, replacing all instances of \kern\marginparsep with a
654   % conditional. We call \patch recursively each time on success, and stop
655   % when the patch fails (because all instances have been replaced).  If the
656   % patch fails the first time, we show an error message.
657   \def\patcherr{%
658     \message{Error! Couldn't hook into command '\string\@mn@@@marginnote'}}
659   \def\patchok{%
660     \let\patcherr\relax % Only display error if first patch fails
661     \patch              % Now patch again.
662   }
663   \def\patch{
664     \patchcmd{\@mn@@@marginnote}                    % In this command
665            {\kern\marginparsep}                     % ... replace this...
666            {\ifx\@mn@currpage\relax\else            % ... with this
667                \if@twoside\ifodd\@mn@currpage\relax
668                  \kern\marginparsepodd
669                \else
670                  \kern\marginparsepeven
671                \fi
672              \else
673                \kern\marginparsepodd
674              \fi
675            \fi}
676            {\message{Patched!}\patchok}            % success (recurse)
677            {\patcherr}                             % fail
678   }
```

```
679   \message{Patching '\string\@mn@@@marginnote'!}
680   \patch
681   \global\let\@mn@@@marginnote\@mn@@@marginnote    % Make patch global
682 }
683 \makeatother
684 \endinput
```

Change History