

# 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.

<code>mark=</code>	<code>alph</code> , <code>Alph</code> , <code>arabic</code> , <code>roman</code> , <code>Roman</code> , <code>fnsymbol</code>
<code>font=</code>	<code>rm</code> , <code>sf</code>
<code>size=</code>	<code>footnote</code> , <code>normal</code> , <code>small</code> , <code>script</code>
<code>shape=</code>	<code>up</code> , <code>it</code> , <code>sl</code>
<code>ragged</code>	switches to ragged outer margins
<code>classic</code>	switches to a classic look
<code>sepdiff=</code>	<code>1em</code> , or a valid length within reason
<code>alerton</code>	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 available to the page outer edge.

## 1.2 Modified L<sup>A</sup>T<sub>E</sub>X 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 `{}`.

<code>*</code>	margin note reference labels is omitted
<code> float offset </code>	floating offset, negative is towards page top
<code>&lt;fixed offset&gt;</code>	fixed offset, negative is towards page top
<code>(custom mark)</code>	any custom mark
<code>!colour!</code>	any valid colour
<code>{content}</code>	margin note content

`\sidenote` The `\sidenote` has four options `*|offset|<offset>(custom mark){content}` preceding the note content

The options are defined by their enclosures `||`, `<>`, `()` and must be in this order if used. Example, `\sidenote|10pt|($\bigstar$){text}` is valid but `\sidenote($\bigstar$)|10pt|{text}` will give an error

`\sidenotemark` 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` Are `raggedleft` or `raggedright` modes depending if document is one or two sided  
`\raggedouter` and if the page is even or odd.

`\marginfigure` The `\marginfigure` environment puts a figure and its caption in the margin. In-

stead 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*.

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

`\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 has 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 L<sup>A</sup>T<sub>E</sub>X runs to provide 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  $0.5 * (\text{marginparwidth} + \text{marginparsep})$ , omitting the option is equivalent to specifying the option [1],

`\sidecite` The `\sidecite`, `\sidecitete` and `\sidecitete*` provide citing references in the margin and uses the package `biblatex` which has to be setup outside the `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. `\sidecitete{BibReference}` renders: Author<sup>a</sup>, where 'a' is side note mark, whereas `\sidecitete*{BibReference}` is the possessive version and renders: Author's<sup>a</sup>.

## 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
50 \keys_define:nn { sidenoteplus }
51 {
52   mark .code:n = \str_case:nn {#1}%
53     { {\fnsymbol}{\RenewDocumentCommand \snp@symbol {}{\fnsymbol}}}%
54     { {\Alph}{\RenewDocumentCommand \snp@symbol {}{\Alph}}}%
55     { {\arabic}{\RenewDocumentCommand \snp@symbol {}{\arabic}}}%
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-0.6em}}}
97     {\hbox {\textsuperscript {\normalfont #1 }}}
98     \ifhmode
99         \spacefactor \x@sf
100     \fi
101     \relax
102 }

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

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

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

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

```

```

\marginpar
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 }

\snp@placemarginal -
130 \NewDocumentCommand \snp@placemarginal {d!! m m }
131 {
132   \IfNoValueOrEmptyTF{#1}
133   {
134     \if@twoside
135       \snp@isoddpge
136       {
137         \IfNoValueOrEmptyTF{#2}
138         {\marginpar{ #3 }}
139         {\marginnote{\snp@sidenoteformat #3}[#2]}
140       }
141       {
142         \bool_if:NTF \l@snp@symmetric
143         {
144           \IfNoValueOrEmptyTF{#2}
145           {\marginpar{\begin{@snp@llr} #3\end{@snp@llr}}}
146           {\marginnote{\begin{@snp@llr}\snp@sidenoteformat #3\end{@snp@llr}}[#2]}
147         }
148         {
149           \IfNoValueOrEmptyTF{#2}
150           {\marginpar{ #3}}
151           {\marginnote{\snp@sidenoteformat #3}[#2]}
152         }
153       }
154     \else
155       \IfNoValueOrEmptyTF{#2}
156       {\marginpar{ #3}}
157       {\marginnote{\snp@sidenoteformat #3}[#2]}
158     \fi
159   }
160   {
161     \if@twoside
162       \snp@isoddpge
163       {
164         \IfNoValueOrEmptyTF{#2}
165         {\marginpar{ \textcolor{#1}{#3} }}
166         {\marginnote{\snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
167       }
168       {
169         \bool_if:NTF \l@snp@symmetric
170         {
171           \IfNoValueOrEmptyTF{#2}
172           {\marginpar{\begin{@snp@llr} \textcolor{#1}{#3}\end{@snp@llr}}}
173           {\marginnote{\begin{@snp@llr}\snp@sidenoteformat \textcolor{#1}{#3}\end{@snp@llr}}[#2]}
174         }
175         {
176           \IfNoValueOrEmptyTF{#2}
177           {\marginpar{\textcolor{#1}{#3}}}

```

```

178         {\marginnote{\snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
179     }
180 }
181 \else
182     \IfNoValueOrEmptyTF{#2}
183     {\marginpar{ \textcolor{#1}{#3}}}
184     {\marginnote{\snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
185 \fi
186 }
187 }

\sidepar -
188 \NewDocumentCommand \sidepar {}
189 {
190     \\\makebox[1em]{}
191 }

\sidenote -
192 \NewDocumentCommand \sidenote {s d|| d<> d() d!! m }
193 {
194     \IfBooleanTF{#1}
195     { % starred
196         \snp@sidenotemark*(#4)
197         \snp@sidenotetext[*]|#2|<#3>(4)!#5!{#6}
198     }{ % unstarred
199         \snp@sidenotemark(#4)
200         \snp@sidenotetext[]|#2|<#3>(4)!#5!{#6}
201         \snp@multimarker
202     }
203 }

\sidealert -
204 \NewDocumentCommand \sidealert {s d|| d<> d() d!! m }
205 {
206     \bool_if:NTF \l@snp@alerton
207     {
208         \bool_set_true:N \l@snp@alertmarkon
209         \IfNoValueOrEmptyTF{#5}
210         {
211             \IfBooleanTF{#1}
212             { % starred
213                 \snp@sidenotemark*(#4)
214                 \snp@sidenotetext[*]|#2|<#3>(4)!Red!{#6}
215             }{ % unstarred
216                 \snp@sidenotemark(#4)!Red!{}
217                 \snp@sidenotetext[]|#2|<#3>(4)!Red!{#6}
218                 \snp@multimarker
219             }
220         }{ \IfBooleanTF{#1}
221             { % starred
222                 \snp@sidenotemark*(#4)
223                 \snp@sidenotetext[*]|#2|<#3>(4)!#5!{#6}
224             }{ % unstarred
225                 \snp@sidenotemark(#4)!#5!{}
226                 \snp@sidenotetext[]|#2|<#3>(4)!#5!{#6}
227                 \snp@multimarker
228             }
229         }
230     }
231     {\relax}

```

```

232 \bool_set_false:N \l@snp@alertmarkon
233 }

\sidenotemark -

234 \NewDocumentCommand \sidenotemark {s d() d!! m }
235 {
236 \IfBooleanTF{#1}
237 { % starred
238 \relax}
239 {% unstarred
240 \IfNoValueOrEmptyTF{#3}
241 {\snp@sidenotemark (#2)}
242 {\snp@sidenotemark ({#2})}
243 }
244 \xspace
245 }

\snp@sidenotemark -

246 \NewDocumentCommand \snp@symbolnoteoralert {}{}
247 \NewDocumentCommand \snp@sidenotemark {s d() d!! }
248 {
249 \IfBooleanTF{#1}
250 { % starred
251 \relax}
252 {% unstarred
253 \snp@multichecker
254 \bool_if:NTF \l@snp@alertmarkon
255 { \refstepcounter{sidealert}
256 \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@alertsymbol{sidealert}} }
257 { \refstepcounter{sidenote}
258 \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@symbol{sidenote}} }
259 \IfNoValueOrEmptyTF{#3}
260 {
261 \IfNoValueOrEmptyTF{#2}
262 { \snp@putmarkintext{\snp@symbolnoteoralert } }
263 { \snp@putmarkintext{#2} }
264 }{
265 \IfNoValueOrEmptyTF{#2}
266 { \textcolor{#3} {\snp@putmarkintext{\snp@symbolnoteoralert} } }
267 { \textcolor{#3} {\snp@putmarkintext{#2}} }
268 }
269 \snp@multimarker
270 }
271 }

\snp@onelineup -

272 \NewDocumentCommand{\snp@onelineup}{}
273 {\par \vspace*{-1\baselineskip}}
274 \NewDocumentCommand{\snp@onexlineup}{}
275 {\par \vspace*{-1.5\baselineskip}}

\snp@leftnotelabel -

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

\snp@rightnotelabel -

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

```



```

\snp@justifiedleftnotelabel -
280 \NewDocumentCommand{\snp@justifiedleftnotelabel}{ m }
281   {\makebox[0em][l]{\hspace*{\marginparwidth+0.9ex}#1}}

\sidenotetext -
282 \NewDocumentCommand \sidenotetext {s d|| d<> d() d!! m } {
283   \IfBooleanTF{#1}
284     { \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6} }
285     { \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6} }
286 }

\sidenotetextbefore -
287 \NewDocumentCommand \sidenotetextbefore {s d|| d<> d() d!! m } {
288   \refstepcounter{sidenote}
289   \IfBooleanTF{#1}
290     { \snp@sidenotetext[*]|#2|<#3>(#4)!#5!{#6} }
291     { \snp@sidenotetext[]|#2|<#3>(#4)!#5!{#6} }
292   \addtocounter{sidenote}{-1}
293 }

294 \DeclareExpandableDocumentCommand{\IfsTF}{ m m m }
295 {
296   \IfNoValueTF{#1}
297     {#2}
298     {\tl_if_empty:nTF {#1} {#2} {#3}}
299 }

-
300 \newlength{\d@snp@offset}

\snp@sidenotetext -
301 \NewDocumentCommand \snp@sidenotesymbol {}{}
302 \NewDocumentCommand \snp@sidenotetext {o d|| d<> d() d!! m } {
303   \bool_if:NTF \l@snp@alertmarkon
304   {
305     \IfNoValueOrEmptyTF{#4}
306       {\RenewDocumentCommand \snp@sidenotesymbol {}{-~\snp@alertsymbolsymbol{sidealert}~-}}
307       {\RenewDocumentCommand \snp@sidenotesymbol {}{-~#4~-}}
308   }
309   {
310     \IfNoValueOrEmptyTF{#4}
311       {\RenewDocumentCommand \snp@sidenotesymbol {}{\snp@symbol{sidenote}}}
312       {\RenewDocumentCommand \snp@sidenotesymbol {}{#4}}
313   }
314   \IfNoValueOrEmptyTF{#2}
315     {\relax}
316     {\setlength{\d@snp@offset}{#2} \vspace*{ \d@snp@offset }}
317   \bool_if:NTF \l@snp@ragged
318   {
319     \if@twoside
320       \snp@isoddpge
321       {%odd page
322         { \snp@placemarginal!#5!{#3}%--
323           {\snp@rightnotelabel{%
324             \normalfont\IfsTF{#1}{\snp@sidenotesymbolsymbol}{\relax}}#6}
325         }
326       }
327     {%even page
328       {\snp@placemarginal!#5!{#3}%--

```

```

329         {\snp@justifiedleftnotelabel{\normalfont%
330             \IfsTF{#1}{\snp@sidenotesymbol}{\relax}}
331             \hspace*{\marginparwidth} \snp@onelineup#6}
332     }
333 }
334 \else %not twoside
335     {\snp@placemarginal!#5!{#3}%--
336         {\snp@rightnotelabel{\normalfont%
337             \IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
338     }
339 \fi % ends if@twoside
340 }
341 {
342 \if@twoside
343     \snp@isoddpag
344     {%odd page
345         {\snp@placemarginal!#5!{#3}%--
346             {\snp@rightnotelabel{
347                 \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
348         }
349     }
350     {%even page
351         \bool_if:NTF \l@snp@symmetric
352         {
353             {\snp@placemarginal!#5!{#3}%--
354                 {\snp@justifiedleftnotelabel{
355                     \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax} }
356                     \hspace*{\marginparwidth}\snp@onelineup#6
357                 }
358             }
359         }
360         {
361             { \snp@placemarginal!#5!{#3}%--
362                 {\snp@rightnotelabel{
363                     \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6 }
364             }
365         }
366     }
367 \else
368     { \snp@placemarginal!#5!{#3}%--
369         {\snp@rightnotelabel{
370             \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
371     }
372 \fi
373 }
374 \IfNoValueOrEmptyTF{#2}
375     {\relax}
376     { \setlength{\d@snp@offset}{#2 *(-1)} \vspace*{\d@snp@offset}}
377 }

```

\snp@raggedcaption --

```

378
379 \NewDocumentCommand \snp@raggedcaption {m }
380 {
381     \if@twoside
382         \snp@isoddpag {#1}
383         {\bool_if:NTF \l@snp@symmetric {\begin{@snp@llr}#1\end{@snp@llr}} {#1}}
384     \else #1 \fi
385 }
386 \DeclareCaptionStyle{sidecaption}{font=footnotesize}

```

```

\sidecaption -
387 \NewDocumentCommand \snp@entrycap {} {}
388 \NewDocumentCommand \snp@offsetcap {} {}
389 \NewDocumentCommand \sidecaption {s d|| d<> d!! o m} {
390   \captionsetup{style=sidecaption}
391   \IfBooleanTF{#1}
392   { %starred
393     \marginnote{\caption*{\snp@raggedcaption{#6}}}
394     [\IfNoValueOrEmptyTF{#3} {0pt} {#3}]
395   }
396   { %unstarred
397     \marginnote{\caption[\IfNoValueOrEmptyTF{#5} {#6} {#5}]
398                 {\snp@raggedcaption{#6}}}
399     [\IfNoValueOrEmptyTF{#3} {0pt} {#3}]
400   }
401 }

\listwosided -
402 \NewDocumentCommand \listwosided {m m} {
403   \if@twoside #1 \else #2 \raggedleft \fi
404 }

\raggedinner -
405 \NewDocumentCommand \raggedinner {} {
406   \if@twoside
407     \snp@isoddpaper {\raggedleft}{\raggedright}
408   \else
409     \raggedleft
410   \fi
411 }

\raggedouter -
412 \NewDocumentCommand \raggedouter {} {
413   \if@twoside
414     \snp@isoddpaper {\raggedright}{\raggedleft}
415   \else
416     \raggedleft
417   \fi
418 }

\margincaption -
419 \newlength \l@snp@belowcaption
420 \NewDocumentCommand \margincaption {s o m}
421 {
422   \setlength \l@snp@belowcaption \belowcaptionskip
423   \setlength{\belowcaptionskip}{1ex plus 0.3ex minus -0.1ex}
424   \IfBooleanTF{#1}
425   { %starred
426     \if@twoside
427       \snp@isoddpaper
428       {
429         \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
430       }
431     {
432       \bool_if:NTF \l@snp@symmetric
433       {
434         \IfNoValueOrEmptyTF{#2}
435         {\caption*{#3}{\begin{@snp@llr}#3\end{@snp@llr}}}
436         {\caption*{#2}{\begin{@snp@llr}#3\end{@snp@llr}}}

```

```

437     }
438     {
439         \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
440     }
441     }
442     \else
443         \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
444     \fi
445 }
446 { %unstarred
447     \if@twoside
448         \snp@isoddpages
449         {
450             \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
451         }
452         {
453             \bool_if:NTF \l@snp@symmetric
454             {
455                 \IfNoValueOrEmptyTF{#2}
456                 {\caption{#3}{\begin{@snp@llr}{#3}\end{@snp@llr}}}
457                 {\caption{#2}{\begin{@snp@llr}{#3}\end{@snp@llr}}}
458             }
459             {
460                 \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
461             }
462         }
463     \else
464         \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
465     \fi
466 }
467 \setlength \belowcaptionskip \l@snp@belowcaption
468 }

469 \newsavebox{\b@snp@marginfigurebox}
470 \DeclareCaptionStyle{marginfigure}{font=footnotesize,skip=1ex}

```

marginfigure —

```

471 \NewDocumentEnvironment{marginfigure} { d|| d<> }
472 { % begin{} part
473     \begin{lrbox}{\b@snp@marginfigurebox}
474     \begin{minipage}{\marginparwidth}
475         \captionsetup{type=figure,style=marginfigure}
476 }

477 { % end{} part
478     \end{minipage}%
479     \end{lrbox}%
480
481     \IfNoValueOrEmptyTF{#1}
482     {\relax}
483     {\setlength{\d@snp@offset}{#1} \vspace*{\d@snp@offset }}
484     \snp@placemarginal{#2}{\usebox{\b@snp@marginfigurebox} }
485     %~\snp@onexlineup \snp@test }
486     \IfNoValueOrEmptyTF{#1}
487     {\relax}
488     {\setlength{\d@snp@offset}{#1 *(-1)} \vspace*{\d@snp@offset}}
489 }

```

Figure

```

490 \newsavebox{\b@snp@margintablebox}

```

```

491 \DeclareCaptionStyle{margintable}{font=footnotesize}

margintable --

492 \NewDocumentEnvironment{margintable} { d|| d<> d() }
493 { % begin part
494   \begin{lrbox}{\b@snp@margintablebox}
495     \snp@sidenoteformat
496     \begin{minipage}{\marginparwidth}
497       \captionsetup{type=table,style=margintable}
498   }

499 { % end part
500   \end{minipage}
501   \end{lrbox}
502   \IfNoValueOrEmptyTF{#1}
503     {\relax}
504     {\setlength{\d@snp@offset}{#1} \vspace*{ \d@snp@offset }}
505   \snp@placemarginal{#2}{\usebox{\b@snp@margintablebox} }
506   \IfNoValueOrEmptyTF{#1}
507     {\relax}
508     {\setlength{\d@snp@offset}{#1 *(-1)} \vspace*{{\d@snp@offset}}}
509 %
510
511 %
512 }

--

513 \AtBeginDocument{%
514   \newlength{\d@snp@extrawidth}
515   \setlength{\d@snp@extrawidth}{\marginparwidth}
516   \addtolength{\d@snp@extrawidth}{\marginparsep} }

\snp@isoddpge --

517 \NewDocumentCommand \snp@isoddpge {m m}
518   { \checkoddpge\ifoddpge #1 \else #2 \fi }

@snp@autoadjustwidth --

519 \NewDocumentEnvironment{@snp@autoadjustwidth}{ m m }%
520 { % begin part
521   \begin{adjustwidth}{0pt}{0pt}
522     \if@twoside
523       \snp@isoddpge{\begin{adjustwidth}{#1}{-#2}}%
524       {\begin{adjustwidth}{-#2}{#1}}
525     \else
526       \begin{adjustwidth}{#1}{-#2}
527     \fi
528   }

529 { % end part
530   \end{adjustwidth}\end{adjustwidth}
531 }

text* --

532 \NewDocumentEnvironment{text*}{ o }%
533 { % begin part
534   \begin{adjustwidth}{0pt}{0pt}
535   \IfNoValueOrEmptyTF{#1}
536   {
537     \if@twoside
538       \snp@isoddpge{\begin{adjustwidth}{0pt}{-\d@snp@extrawidth}}%

```

```

539         {\begin{adjustwidth}{-\d@snp@extrawidth*}{0pt}}
540     \else
541         \begin{adjustwidth}{0pt}{-\d@snp@extrawidth*}
542     \fi
543 }
544 {
545     \if@twoside
546         \snp@isoddpagel{\begin{adjustwidth}{0pt}{-\d@snp@extrawidth*#1}}%
547             {\begin{adjustwidth}{-\d@snp@extrawidth*#1}{0pt}}
548     \else
549         \begin{adjustwidth}{0pt}{-\d@snp@extrawidth*#1}
550     \fi
551 }
552 }

553 { % end part
554 \end{adjustwidth}\end{adjustwidth} \snp@placemarginal{}{}
555 }

```

figure\*

```

556 \RenewDocumentEnvironment{figure*}{0{htbp}}{
557 {
558     \begin{figure}[#1]
559     \begin{@snp@autoadjustwidth}{\d@snp@extrawidth}
560     \begin{minipage}[c]{\linewidth}
561     \centering
562     \captionsetup{margin={\d@snp@extrawidth/2,\d@snp@extrawidth/2}}
563 }{ % end part
564     \end{minipage}
565     \end{@snp@autoadjustwidth}
566     \end{figure}
567     \snp@placemarginal{}{}
568 }

```

table\*

```

569 \RenewDocumentEnvironment{table*}{0{htbp}}{
570 {
571     \begin{table}[#1]
572     \begin{@snp@autoadjustwidth}{\d@snp@extrawidth}
573     \if@twoside
574         \snp@isoddpagel{\raggedright}{\raggedleft}
575         \snp@isoddpagel
576         {\captionsetup{margin={0pt,0pt}}} }
577         {\captionsetup{margin={-\d@snp@extrawidth,\d@snp@extrawidth}}} }
578     \else
579         \raggedright \captionsetup{margin={0pt,0pt}}
580     \fi
581 }
582 { % end part
583     \end{@snp@autoadjustwidth}
584     \end{table}
585 }

```

\sidecite —

```

586 \NewDocumentCommand \snp@before {} {}
587 \NewDocumentCommand \snp@after {} {}
588 \NewDocumentCommand \sidecite {s d|| d< d() d!! o o m }

589 { \IfNoValueOrEmptyTF{#6}
590     {\RenewDocumentCommand \snp@before {} {}}

```

```

591 {\RenewDocumentCommand \snp@before {} {#6}}
592 \IfNoValueOrEmptyTF{#7}
593 {\RenewDocumentCommand \snp@after {} {}}
594 {\RenewDocumentCommand \snp@after {} {#7}}
595 \sidenote|#2|<#3>(4)!#5!\upshape\fullcite[\snp@before][\snp@after]{#8}}
596 }

```

\sidecitset -

```

597 \NewDocumentCommand \sidecitset {s d|| d<> d() d!! o o m }
598 { \IfNoValueOrEmptyTF{#6}
599   {\RenewDocumentCommand \snp@before {} {}}
600   {\RenewDocumentCommand \snp@before {} {#6}}
601   \IfNoValueOrEmptyTF{#7}
602   {\RenewDocumentCommand \snp@after {} {}}
603   {\RenewDocumentCommand \snp@after {} {#7}}
604   \IfBooleanTF{#1}
605   {
606     \citeauthor{#8}'s\sidenote|#2|<#3>(4)!#5!
607     {\upshape\fullcite[\snp@before][\snp@after]{#8}}
608   }
609   {
610     \citeauthor{#8}\sidenote|#2|<#3>(4)!#5!
611     {\upshape\fullcite[\snp@before][\snp@after]{#8}}
612   }
613 }

614 \newlength\marginparsepodd
615 \newlength\marginparsepeven
616
617 \setlength{\marginparsepodd}{\marginparsep}
618 \setlength{\marginparsepeven}{\marginparsep-\snp@marginsepdiff}
619
620 \makeatletter
621 % First we patch \@addmarginpar
622 % The \patchcmd command does a search and replace.
623 \patchcmd{\@addmarginpar} % In this command
624   {\mph@orig@addmarginpar} % ... replace this...
625   {\if@twoside\ifodd\c@page\relax % ... with this
626     \marginparsep=\marginparsepodd % Page is odd
627     \else
628     \marginparsep=\marginparsepeven % Page is even
629     \fi
630     \else
631     \marginparsep=\marginparsepodd
632     \fi
633     \mph@orig@addmarginpar}
634   {} % success
635   {\message{Error! Couldn't hook into command % failure
636     '\string\@addmarginpar'}}}
637
638 % Now we patch \@mn@@marginnote
639 {% Group to keep patching commands local
640 %
641 % Here we use a little trick to repeatedly patch the \@mn@@marginnote
642 % command, replacing all instances of \kern\marginparsep with a
643 % conditional. We call \patch recursively each time on success, and stop
644 % when the patch fails (because all instances have been replaced). If the
645 % patch fails the first time, we show an error message.
646 \def\patcherr{%
647   \message{Error! Couldn't hook into command '\string\@mn@@marginnote'}}}
648 \def\patchchok{%

```

```

649 \let\patcherr\relax % Only display error if first patch fails
650 \patch               % Now patch again.
651 }
652 \def\patch{
653   \patchcmd{\@mn@@@marginnote}           % In this command
654     {\kern\marginparsep}                 % ... replace this...
655     {\ifx\@mn@currpage\relax\else         % ... with this
656       \if@twoside\ifodd\@mn@currpage\relax
657         \kern\marginparsepodd
658       \else
659         \kern\marginparsepeven
660       \fi
661     \else
662       \kern\marginparsepodd
663     \fi
664   \fi}
665   {\message{Patched!}\patchok}           % success (recurse)
666   {\patcherr}                             % fail
667 }
668 \message{Patching '\string\@mn@@@marginnote'!}
669 \patch
670 \global\let\@mn@@@marginnote\@mn@@@marginnote % Make patch global
671 }
672 \makeatother
673 \endinput

```

## Change History

1.0  
 General: Initial Release . . . . . 1