

# The sidenotesplus package

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Home Page: <https://github.com/anton-vrba/sidenotesplus>

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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 intended.

**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
Ragged  switches to ragged outer margins but uses ragged2e package
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` or `Ragged` changes this style to ragged-outer, that is the left page's marginal notes are `\raggedleft` and the right page's are `\raggedright`. If you opt to use `Ragged` the package `ragged2e` is loaded and `RaggedLeft/Right` is used instead of `raggedleft/right`. Load package `ragged2e` with required options before `sidenotesplus` is loaded, otherwise `sidenotesplus` loads `ragged2e` without any options.

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

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|<offset>(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` Similar to `\footnotemark` and `\footnotetext` the macros `\sidenotemark`,  
`\sidenotemark` `\sidenotetext` and `\sidenotetextbefore` are provided, the latter two have the  
`\sidenotetextbefore` 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** (*env.*) 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*.
- marginable** (*env.*) 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 **marginable**) and it is not to be confused with **\sidecaption**. It has the same options as **\caption**.
- figure\*** (*env.*) 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 *widfigure*. The sister environment for tables is **table\***. Use *widetable* to change its caption style.
- text\*** (*env.*) 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**, **\sidecitet** and **\sidecitet\*** 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. `\sidecitet{BibReference}` renders: Author<sup>a</sup>, where 'a' is side note mark, whereas `\sidecitet*{BibReference}` is the possessive version and renders: Author's<sup>a</sup>.

## 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 L<sup>A</sup>T<sub>E</sub>X3 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.

**ifoddpaper** provides the command \ifoddpaper

**etoolbox** provides the command \patchcmd

**calc** provides calculation such as adding lengths

**ragged2e** if Ragged option is used, and provides hyphenation to prevent very short lines

## 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=300%
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@Ragged
37 \bool_new:N \l@snp@symmetric
38 \bool_new:N \l@snp@page
39
40 \bool_set_false:N \l@snp@margincaption
41 \bool_set_false:N \l@snp@alerton

```

```

42 \bool_set_false:N \l@snp@alertmarkon
43 \bool_set_false:N \l@snp@ragged
44 \bool_set_false:N \l@snp@Ragged
45 \bool_set_true:N \l@snp@symmetric
46
47
48 %
49 \newlength{\snp@marginsepdiff}
50 \setlength{\snp@marginsepdiff}{1ex}

51 \keys_define:nn { sidenoteplus }
52 {
53   mark .code:n = \str_case:nn {#1}%
54     { {fnsymbol}{\RenewDocumentCommand \snp@symbol {}{\fnsymbol}}%
55       {Alph}{\RenewDocumentCommand \snp@symbol {}{\Alph}}%
56       {arabic}{\RenewDocumentCommand \snp@symbol {}{\arabic}
57         \RenewDocumentCommand \snp@alertsymbolsymbol {} {\alph}}%
58       {Roman}{\RenewDocumentCommand \snp@symbol {}{\Roman}}%
59       {roman}{\RenewDocumentCommand \snp@symbol {}{\roman}}%
60       {Other}{ } },
61   font .code:n = \str_case:nn {#1}%
62     { {sf}{\RenewDocumentCommand \snp@font {}{\sffamily}}%
63       {Other}{ } },
64   size .code:n = \str_case:nn {#1}%
65     { {small}{\RenewDocumentCommand \snp@size {}{\small}}%
66       {script}{\RenewDocumentCommand \snp@size {}{\scriptsize}}%
67       {normal}{\RenewDocumentCommand \snp@size {}{\normalsize}}%
68       {Other}{ } },
69   shape .code:n = \str_case:nn {#1}%
70     { {sl}{\RenewDocumentCommand \snp@shape{}{\slshape}}%
71       {up}{\RenewDocumentCommand \snp@shape{}{\upshape}}%
72       {it}{\RenewDocumentCommand \snp@shape{}{\itshape}}%
73       {Other}{ } },
74   sepdiff .code:n = \setlength{\snp@marginsepdiff}{#1},
75   classic .code:n = \bool_set_false:N \l@snp@symmetric,
76   ragged .code:n = { \RenewDocumentCommand \snp@leftmarginstyle {}{\raggedleft}
77     \RenewDocumentCommand \snp@rightmarginstyle {}{\raggedright}
78     \bool_set_true:N \l@snp@ragged },
79   Ragged .code:n = { \RenewDocumentCommand \snp@leftmarginstyle {}{\RaggedLeft}
80     \RenewDocumentCommand \snp@rightmarginstyle {}{\RaggedRight}
81     \bool_set_true:N \l@snp@Ragged
82     \bool_set_true:N \l@snp@ragged },
83   alerton .code:n = {\bool_set_true:N \l@snp@alerton},
84 }
85 \ProcessKeysOptions { sidenoteplus }
86 \bool_if:NTF \l@snp@Ragged
87   {
88     \ifpackageloaded{ragged2e}
89     {\relax}{\RequirePackage{ragged2e}}
90   }
91   {\relax}
92 \bool_if:NTF \l@snp@ragged
93   {\setlength{\snp@marginsepdiff}{0pt} \bool_set_false:N \l@snp@symmetric}
94   {\relax}
95 \bool_if:NTF \l@snp@symmetric {\setlength{\snp@marginsepdiff}{0pt}}{\relax}
96 \newcounter{sidenote}[page] % make a counter
97 \setcounter{sidenote}{0} % init the counter
98 \newcounter{sidealert}[page] % make a counter
99 \setcounter{sidealert}{0} % init the counter

```

```

100 \NewDocumentCommand \snp@putmarkintext { m }
101 {
102   \leavevmode
103   \ifhmode
104     \edef \x@sf {\the \spacefactor }
105     \nobreak
106     \fi
107     \bool_if:NTF \l@snp@alertmarkon
108     {\makebox[Opt]{\raisebox{0.3ex}{\textsuperscript {\normalfont \bf ---~{#1}~---\kern-0.6ex
109     {\hbox {\textsuperscript {\normalfont #1 }}}}}
110     \ifhmode
111       \spacefactor \x@sf
112     \fi
113     \relax
114 }

\snp@multisign –
115 \NewDocumentCommand \snp@multisign { } {3sp}

\snp@multimarker –
116 \NewDocumentCommand \snp@multimarker { }
117 {
118   \kern-\snp@multisign
119   \kern\snp@multisign\relax
120 }

\snp@multichecker –
121 \NewDocumentCommand \snp@multichecker { }
122 {
123   \dim_compare:nNnTF \lastkern = \snp@multisign
124   {\snp@putmarkintext{,}}
125   {}
126 }

@snp@llr (env.) –
127 \NewDocumentEnvironment{@snp@llr} {}%
128 {
129   \setlength{\parindent}{Opt}
130   \setlength{\leftskip}{Opt plus 1fil}
131   \setlength{\rightskip}{Opt plus -1fil}
132 }{\par}

\marginpar
133 \let\oldmarginpar\marginpar
134 \renewcommand{\marginpar}[2] []{
135   \if\relax\detokenize{#1}\relax
136     \oldmarginpar[\snp@leftmarginstyle\snp@sidenoteformat{#2}]%
137     {\snp@rightmarginstyle\snp@sidenoteformat{#2}}%
138   \else%two parameters, let them use their styling
139     \oldmarginpar[#{#1}]{#2}%
140   \fi%
141 }

\snp@placemarginal –
142 \renewcommand*{\raggedleftmarginnote}{}
143 \renewcommand*{\raggedrightmarginnote}{}
144 \renewcommand*{\marginfont}{}
145
146 \NewDocumentCommand \snp@placemarginal {d!! m m }

```

```

147 {
148   \IfNoValueOrEmptyTF{#1}
149   {
150     \if@twoside
151       \snp@isoddpge
152       {
153         \IfNoValueOrEmptyTF{#2}
154         {\marginpar{ #3 }}
155         {\marginnote{\snp@sidenoteformat #3}[#2]}
156       }
157     {
158       \bool_if:NTF \l@snp@symmetric
159       {
160         \IfNoValueOrEmptyTF{#2}
161         {\marginpar{\begin{@snp@llr} #3\end{@snp@llr}}}
162         {\marginnote{\begin{@snp@llr}\snp@sidenoteformat #3\end{@snp@llr}}[#2]}
163       }
164     }
165     {
166       \IfNoValueOrEmptyTF{#2}
167       {\marginpar{ #3}}
168       {\marginnote{\snp@sidenoteformat #3}[#2]}
169     }
170   }
171   \else
172     \IfNoValueOrEmptyTF{#2}
173     {\marginpar{ #3}}
174     {\marginnote{\snp@sidenoteformat #3}[#2]}
175   \fi
176 }
177 {
178   \if@twoside
179     \snp@isoddpge
180     {
181       \IfNoValueOrEmptyTF{#2}
182       {\marginpar{ \textcolor{#1}{#3} }}
183       {\marginnote{\snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
184     }
185     {
186       \bool_if:NTF \l@snp@symmetric
187       {
188         \IfNoValueOrEmptyTF{#2}
189         {\marginpar{\begin{@snp@llr} \textcolor{#1}{#3}\end{@snp@llr}}}
190         {\marginnote{\begin{@snp@llr}\snp@sidenoteformat \textcolor{#1}{#3}\end{@snp@llr}}
191       }
192     }
193     {
194       \IfNoValueOrEmptyTF{#2}
195       {\marginpar{\textcolor{#1}{#3}}}
196       {\marginnote{ \snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
197     }
198   \else
199     \IfNoValueOrEmptyTF{#2}
200     {\marginpar{ \textcolor{#1}{#3}}}
201     {\marginnote{ \snp@sidenoteformat \textcolor{#1}{#3}}[#2]}
202   \fi
203 }
204 }

```

\sidepar –

```

205 \NewDocumentCommand \sidepar {}
206 {
207   \\makebox[1em]{}
208 }

\sidenote -
209 \NewDocumentCommand \sidenote {s d|| d<> d() d!! m }
210 {
211   \IfBooleanTF{#1}
212   { % starred
213     \snp@sidenotemark*(#4)
214     \snp@sidenotetext[*]|#2|<#3>(##4)!#5!{#6}
215   }{ % unstarred
216     \IfNoValueOrEmptyTF{#5} {
217       \snp@sidenotemark(#4)
218       \snp@sidenotetext[]|#2|<#3>(##4)!#5!{#6}
219     } \snp@multimarker }
220   {
221     \snp@sidenotemark(#4)!#5!
222     \snp@sidenotetext[]|#2|<#3>(##4)!#5!{#6}
223   } \snp@multimarker }
224
225 }
226 }

\sidealert -
227 \NewDocumentCommand \sidealert {s d|| d<> d() d!! m }
228 {
229   \bool_if:NTF \l@snp@alerton
230   {
231     \bool_set_true:N \l@snp@alertmarkon
232     \IfNoValueOrEmptyTF{#5}
233     {
234       \IfBooleanTF{#1}
235       { % starred
236         \snp@sidenotemark*(#4)
237         \snp@sidenotetext[*]|#2|<#3>(##4)!Red!{#6}
238       }{ % unstarred
239         \snp@sidenotemark(#4)!Red!{}
240         \snp@sidenotetext[]|#2|<#3>(##4)!Red!{#6}
241       } \snp@multimarker
242     }
243   }{ \IfBooleanTF{#1}
244     { % starred
245       \snp@sidenotemark*(#4)
246       \snp@sidenotetext[*]|#2|<#3>(##4)!#5!{#6}
247     }{ % unstarred
248       \snp@sidenotemark(#4)!#5!{}
249       \snp@sidenotetext[]|#2|<#3>(##4)!#5!{#6}
250     } \snp@multimarker
251   }
252 }
253 }
254 {\relax}
255 \bool_set_false:N \l@snp@alertmarkon
256 }

\sidenotemark -
257 \NewDocumentCommand \sidenotemark {s d() d!! }
258 {

```



```

259 \IfBooleanTF{#1}
260 { % starred
261   \relax}
262 {% unstarred
263   \IfNoValueOrEmptyTF{#3}
264     {\snp@sidenotemark (#2)}
265     {\snp@sidenotemark !#3!( #2)}
266   }
267 \xspace
268 }

```

\snp@sidenotemark –

```

269 \NewDocumentCommand \snp@symbolnoteoralert {}{}
270 \NewDocumentCommand \snp@sidenotemark {s d() d!! }
271 {
272   \IfBooleanTF{#1}
273   { % starred
274     \relax}
275   {% unstarred
276     \snp@multichecker
277     \bool_if:NTF \l@snp@alertmarkon
278       { \refstepcounter{sidealert}
279         \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@alertsymbolsidealert}} }
280     { \refstepcounter{sidenote}
281       \RenewDocumentCommand \snp@symbolnoteoralert {}{\snp@symbolsidenote}} }
282   \IfNoValueOrEmptyTF{#3}
283   {
284     \IfNoValueOrEmptyTF{#2}
285     { \snp@putmarkintext{\snp@symbolnoteoralert } }
286     { \snp@putmarkintext{#2} }
287   }{
288     \IfNoValueOrEmptyTF{#2}
289     { \textcolor{#3} {\snp@putmarkintext{\snp@symbolnoteoralert}} }
290     { \textcolor{#3} {\snp@putmarkintext{#2}} }
291   }
292   \snp@multimarker
293 }
294 }

```

\snp@onelineup –

```

295 \NewDocumentCommand{\snp@onelineup}{}
296   {\par \vspace*{-1\baselineskip}}
297 \NewDocumentCommand{\snp@onexlineup}{}
298   {\par \vspace*{-1.5\baselineskip}}

```

\snp@leftnotelabel –

```

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

```

\snp@rightnotelabel –

```

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

```

\snp@justifiedleftnotelabel –

```

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

```

\sidenotetext –

```

305 \NewDocumentCommand \sidenotetext {s d|| d<> d() d!! m } {

```

```

306 \IfBooleanTF{#1}
307   { \snp@sidenotetext[*]|#2|<#3>(4)!#5!{#6} }
308   { \snp@sidenotetext[]|#2|<#3>(4)!#5!{#6} }
309 }

```

\sidenotetextbefore -

```

310 \NewDocumentCommand \sidenotetextbefore {s d|| d<> d() d!! m } {
311   \refstepcounter{sidenote}
312   \IfBooleanTF{#1}
313     { \snp@sidenotetext[*]|#2|<#3>(4)!#5!{#6} }
314     { \snp@sidenotetext[]|#2|<#3>(4)!#5!{#6} }
315   \addtocounter{sidenote}{-1}
316 }

317 \DeclareExpandableDocumentCommand{\IfsTF}{m m m }
318 {
319   \IfNoValueTF{#1}
320   {#2}
321   {\tl_if_empty:nTF {#1} {#2} {#3}}
322 }

-

323 \newlength{\d@snp@offset}

```

\snp@sidenotetext -

```

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

```

```

359         {\snp@rightnotelabel{\normalfont%
360             \IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
361     }
362 \fi % ends if@twoside
363 }
364 {
365 \if@twoside
366     \snp@isoddpage
367     {%odd page
368         {\snp@placemarginal!#5!{#3}%--
369             {\snp@rightnotelabel{
370                 \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
371             }
372         }
373     {%even page
374         \bool_if:NTF \l@snp@symmetric
375         {
376             {\snp@placemarginal!#5!{#3}%--
377                 {\snp@justifiedleftnotelabel{
378                     \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax} }
379                     \hspace*{\marginparwidth}\snp@onelineup#6
380                 }
381             }
382         }
383         {
384             { \snp@placemarginal!#5!{#3}%--
385                 {\snp@rightnotelabel{
386                     \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6 }
387             }
388         }
389     }
390 \else
391     { \snp@placemarginal!#5!{#3}%--
392         {\snp@rightnotelabel{
393             \normalfont\IfsTF{#1}{\snp@sidenotesymbol}{\relax}}#6}
394     }
395 \fi
396 }
397 \IfNoValueOrEmptyTF{#2}
398     {\relax}
399     {\setlength{\d@snp@offset}{#2 *(-1)} \vspace*{\d@snp@offset}}
400 }

```

\snp@raggedcaption –

```

401
402 \NewDocumentCommand \snp@raggedcaption {m }
403 {
404     \if@twoside
405         \snp@isoddpage {#1}
406         {\bool_if:NTF \l@snp@symmetric {\begin{@snp@llr}#1\end{@snp@llr}} {#1}}
407     \else #1 \fi
408 }
409 \DeclareCaptionStyle{sidecaption}{font=footnotesize}

```

\sidecaption –

```

410 \NewDocumentCommand \snp@entrycap {} {}
411 \NewDocumentCommand \snp@offsetcap {} {}
412 \NewDocumentCommand \sidecaption {s d|| d<> d!! o m} {
413     \captionsetup{style=sidecaption}

```

```

414 \IfBooleanTF{#1}
415 { %starred
416 \marginnote{\caption*{\snp@raggedcaption{#6}}}
417 [\IfNoValueOrEmptyTF{#3} {Opt} {#3}]
418 }
419 { %unstarred
420 \marginnote{\caption[\IfNoValueOrEmptyTF{#5} {#6} {#5}]
421 {\snp@raggedcaption{#6}}}
422 [\IfNoValueOrEmptyTF{#3} {Opt} {#3}]
423 }
424 }

\istwosided –
425 \NewDocumentCommand \istwosided {m m} {
426 \if@twoside #1 \else #2 \raggedleft \fi
427 }

\raggedinner –
428 \NewDocumentCommand \raggedinner {} {
429 \if@twoside
430 \snp@isoddpaper {\raggedleft}{\raggedright}
431 \else
432 \raggedleft
433 \fi
434 }

\raggedouter –
435 \NewDocumentCommand \raggedouter {} {
436 \if@twoside
437 \snp@isoddpaper {\raggedright}{\raggedleft}
438 \else
439 \raggedleft
440 \fi
441 }

\margincaption –
442 \newlength \l@snp@belowcaption
443 \NewDocumentCommand \margincaption {s o m }
444 {
445 \setlength \l@snp@belowcaption \belowcaptionskip
446 \setlength{\belowcaptionskip}{1ex plus 0.3ex minus -0.1ex}
447 \IfBooleanTF{#1}
448 { %starred
449 \if@twoside
450 \snp@isoddpaper
451 {
452 \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
453 }
454 {
455 \bool_if:NTF \l@snp@symmetric
456 {
457 \IfNoValueOrEmptyTF{#2}
458 {\caption*{#3}{\begin{@snp@llr}#3\end{@snp@llr}}}
459 {\caption*{#2}{\begin{@snp@llr}#3\end{@snp@llr}}}
460 }
461 {
462 \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
463 }
464 }
465 \else

```

```

466     \IfNoValueOrEmptyTF{#2} {\caption*{#3}} {\caption*{#2}{#3}}
467   \fi
468 }
469 { %unstarred
470   \if@twoside
471     \snp@isoddpaper
472     {
473       \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
474     }
475     {
476       \bool_if:NTF \l@snp@symmetric
477       {
478         \IfNoValueOrEmptyTF{#2}
479         {\caption{#3}{\begin{@snp@llr}#3\end{@snp@llr}}}
480         {\caption{#2}{\begin{@snp@llr}#3\end{@snp@llr}}}
481       }
482       {
483         \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
484       }
485     }
486   \else
487     \IfNoValueOrEmptyTF{#2} {\caption{#3}} {\caption{#2}{#3}}
488   \fi
489 }
490 \setlength \belowcaptionskip \l@snp@belowcaption
491 }

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

```

marginfigure (env.) –

```

494 \NewDocumentEnvironment{marginfigure} { d|| d<> }
495 { % begin{} part
496   \begin{lrbox}{\b@snp@marginfigurebox}
497     \begin{minipage}{\marginparwidth}
498       \captionsetup{type=figure,style=marginfigure}
499 }

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

```

Figure

```

513 \newsavebox{\b@snp@marginfigurebox}
514 \DeclareCaptionStyle{marginfigure}{font=footnotesize}

```

marginfigure (env.) –

```

515 \NewDocumentEnvironment{marginfigure} { d|| d<> d() }
516 { % begin part
517   \begin{lrbox}{\b@snp@marginfigurebox}

```

```

518     \snp@sidenoteformat
519     \begin{minipage}{\marginparwidth}
520         \captionsetup{type=table,style=margintable}
521     }

522 { % end part
523     \end{minipage}
524 \end{lrbox}
525 \IfNoValueOrEmptyTF{#1}
526     {\relax}
527     {\setlength{\d@snp@offset}{#1} \vspace*{\d@snp@offset }}
528 \snp@placemarginal{#2}{\usebox{\b@snp@margintablebox} }
529 \IfNoValueOrEmptyTF{#1}
530     {\relax}
531     {\setlength{\d@snp@offset}{#1 *(-1)} \vspace*{\d@snp@offset}}
532 %
533
534 %
535 }

```

```

536 \AtBeginDocument{%
537 \newlength{\d@snp@extrawidth}
538 \setlength{\d@snp@extrawidth}{\marginparwidth}
539 \addtolength{\d@snp@extrawidth}{\marginparsep} }

```

\snp@isoddpge –

```

540 \NewDocumentCommand \snp@isoddpge {m m}
541     { \checkoddpge\ifoddpge #1 \else #2 \fi }

```

@snp@autoadjustwidth (*env.*) –

```

542 \NewDocumentEnvironment{@snp@autoadjustwidth}{m m}{%
543 { % begin part
544 \begin{adjustwidth}{0pt}{0pt}
545     \if@twoside
546         \snp@isoddpge{\begin{adjustwidth}{#1}{-#2}}%
547             {\begin{adjustwidth}{-#2}{#1}}
548     \else
549         \begin{adjustwidth}{#1}{-#2}
550     \fi
551 }

552 { % end part
553     \end{adjustwidth}\end{adjustwidth}
554 }

```

text\* (*env.*) –

```

555 \newsavebox{\b@snp@textbox}
556 \NewDocumentEnvironment{text*}{o}{%
557 { % begin part
558 \begin{adjustwidth}{0pt}{0pt}
559 \IfNoValueOrEmptyTF{#1}
560 {
561     \if@twoside
562         \snp@isoddpge{\begin{adjustwidth}{0pt}{-\d@snp@extrawidth}}%
563             {\begin{adjustwidth}{-\d@snp@extrawidth}{0pt}}
564     \else
565         \begin{adjustwidth}{0pt}{-\d@snp@extrawidth}
566     \fi
567 }

```

```

568 {
569 \if@twoside
570 \snp@isoddp@page{\begin{adjustwidth}{0pt}{-#1\d@snp@extrawidth}}%
571 {\begin{adjustwidth}{-#1\d@snp@extrawidth}{0pt}}
572 \else
573 \begin{adjustwidth}{0pt}{-#1\d@snp@extrawidth}
574 \fi
575 }
576 \begin{lrbox}{\b@snp@textbox}
577 \begin{minipage}[]{\linewidth+1ex}
578 }

579 { % end part
580 \end{minipage}
581 \end{lrbox}
582 \usebox{\b@snp@textbox}
583 \end{adjustwidth}\end{adjustwidth} \snp@placemarginal{}{}
584 }

```

**figure\*** (*env.*)

```

585 \RenewDocumentEnvironment{figure*}{ 0{htbp} }
586 {
587 \begin{figure}[\#1]
588 \begin{@snp@autoadjustwidth}{\d@snp@extrawidth}
589 \begin{minipage}[c]{\linewidth}
590 \centering
591 \captionsetup{ margin={\d@snp@extrawidth/2,\d@snp@extrawidth/2}}
592 }{ % end part
593 \end{minipage}
594 \end{@snp@autoadjustwidth}
595 \end{figure}
596 \snp@placemarginal{}{}
597 }

```

**table\*** (*env.*)

```

598 \RenewDocumentEnvironment{table*}{0{htbp} }
599 {
600 \begin{table}[\#1]
601 \begin{@snp@autoadjustwidth}{\d@snp@extrawidth}
602 \begin{minipage}[c]{\linewidth}
603 \centering
604 \captionsetup{ margin={\d@snp@extrawidth/2,\d@snp@extrawidth/2}}
605 }{ % end part
606 \end{minipage}
607 \end{@snp@autoadjustwidth}
608 \end{table}
609 }

```

**\sidecite** –

```

610 \NewDocumentCommand \snp@before {} {}
611 \NewDocumentCommand \snp@after {} {}
612 \NewDocumentCommand \sidecite {s d|| d<> d() d!! o o m }

613 { \IfNoValueOrEmptyTF{\#6}
614 {\RenewDocumentCommand \snp@before {} {}}
615 {\RenewDocumentCommand \snp@before {} {\#6}}
616 \IfNoValueOrEmptyTF{\#7}
617 {\RenewDocumentCommand \snp@after {} {}}
618 {\RenewDocumentCommand \snp@after {} {\#7}}
619 \sidenote|#2|<#3>{\#4}!\#5!{\kern-2.3pt\upshape\fullcite[\snp@before][\snp@after]{\#8}}
620 }

```

\sidecitet -

```
621 \NewDocumentCommand \sidecitet {s d|| d<> d() d!! o o m }
622 { \IfNoValueOrEmptyTF{#6}
623   {\RenewDocumentCommand \snp@before {} {}}
624   {\RenewDocumentCommand \snp@before {} {#6}}
625   \IfNoValueOrEmptyTF{#7}
626   {\RenewDocumentCommand \snp@after {} {}}
627   {\RenewDocumentCommand \snp@after {} {#7}}
628   \IfBooleanTF{#1}
629   {
630     \citeauthor{#8}'s\sidenote|#2|<#3>( #4) !#5!
631     {\kern-2.3pt\upshape\fullcite[\snp@before][\snp@after]{#8}}
632   }
633   {
634     \citeauthor{#8}\sidenote|#2|<#3>( #4) !#5!
635     {\kern-2.3pt\upshape\fullcite[\snp@before][\snp@after]{#8}}
636   }
637 }

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



```

680             \else
681             \kern\snp@marginparsepeven
682             \fi
683             \else
684             \kern\snp@marginparsepodd
685             \fi
686         \fi}
687     {\message{Patched!}\patchok}           % success (recurse)
688     {\patcherr}                             % fail
689 }
690 \message{Patching '\string\@mn@@@marginnote'!}
691 \patch
692 \global\let\@mn@@@marginnote\@mn@@@marginnote % Make patch global
693 }
694 \makeatother
695 \endinput

```

## Change History

|                                                    |                                                              |
|----------------------------------------------------|--------------------------------------------------------------|
| 1.0                                                | 1.02                                                         |
| General: Initial Release . . . . . 1               | General: added Ragged option . . . 1                         |
| 1.01                                               | v1.01                                                        |
| General: Environment text*<br>improved . . . . . 1 | <b>text*</b> : added newsavebox and<br>minipage . . . . . 14 |