

Journal of Glaciology authors' guide to the IGS L^AT_EX 2_ε class file

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ABSTRACT. The design for the *Journal of Glaciology* has been implemented as a L^AT_EX 2_ε class file and is derived from article.cls. We recommend that authors use this guide as a template. Import your text to below the \maketitle command and then cut-and-paste the title/author/affiliation/abstract details. While writing we suggest you use the two-column [twocolumn] option to check that mathematical equations fit the measure. Submitted papers must, however, be presented using the one-column [review] option. The *Journal of Glaciology* is printed in Optima. However, submissions using Computer Modern are fine. If you have any problems using the class file, please email Craig Baxter at the above address, attaching your tex, log, cls, sty, bib, bbl, bst and any additional sty files you are using. The abstract should be less than 200 words and one paragraph long.

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USING THE IGS CLASS FILE

Please ensure you have downloaded the latest version from <http://igsoc.org/production/>. The IGS L^AT_EX 2_ε journal guide has examples of most environments authors are likely to come across. The title page contains some new environments, e.g. affiliation and abstract. Papers should be divided into unnumbered sections with short section headings. SI units and internationally recognized systems of abbreviation should be used throughout. The T_EX file should be named to reflect your paper number, i.e. 15J299.tex. Please remove any extraneous text (e.g. text from previous drafts, notes and comments that will not form part of the final printed text of the paper).

Additional packages supplied with igs.cls

The distribution package contains the following files; the first 10 are IGS-specific, the other 10 are standard L^AT_EX distribution files:

- igs2ejournalguide.tex IGS L^AT_EX guide
- igs2ejournalguide.pdf pdf file of this guide
- igs2ejournalguide[twocolumn].pdf pdf file of this guide using the [twocolumn] option
- 15J299Fig01.eps Fig. 1 in this guide
- 15J299Fig02.eps Fig. 2 in this guide
- igs.cls IGS class file
- igs.bst IGS bibliography style file
- igsnatbib.sty IGS style file for citations
- igsupmath.sty IGS style file for upright Greek characters
- igsrefs.bib sample BIB_TE_X database
- amsbsy.sty style file called in by igsupmath.sty
- amsfonts.sty style file called in by amssymb.sty
- amsgen.sty style file called in by igsupmath.sty
- amssymb.sty accesses AMS fonts msam and msbm
- ednmath0.sty style file required for [review] option
- edtable.sty style file required for [review] option
- graphicx.sty graphics style file
- lineno.sty style file required for [review] option

51 `ltabptch.sty` style file required for [review] option

52 `vplref.sty` style file required for [review] option

53 **Typesetting the title page**

54 In the IGS design, shortened versions of the title and authors are used in the running head. The shortened
 55 version is specified in square braces immediately after the `\title` and `\author` commands (see below). The
 56 order in which the following elements appear may be crucial, i.e. `\maketitle` must be the last command
 57 before your paper commences. The *Journal of Glaciology* is printed on A4 paper which is slightly longer
 58 than US letter size. The default here is A4 paper but there is also a `[letterpaper]` option. Be aware that
 59 using `[letterpaper]` will fractionally lengthen your article. This guide was typeset using the following
 60 code:

```
61
62 % check that the math fits the two-column format:
63 % \documentclass[twocolumn]{igs}
64
65 % but use this version when submitting your article:
66 \documentclass[review,oneside]{igs}
67
68 % other options are available
69 %   authors printing on US letter size are advised
70 %   to use the slightly shorter [letterpaper] option
71 % SINGLE COLUMN
72 %   \documentclass{igs}
73 % SINGLE COLUMN, FEWER LINES/PAGE
74 %   \documentclass[letterpaper]{igs}
75 % DOUBLE COLUMN, FEWER LINES/PAGE
76 %   \documentclass[twocolumn,letterpaper]{igs}
77
78 \usepackage{igsnatbib}
79
80 % check if we are compiling under latex or pdflatex
```

```

81  \ifx\pdftexversion\undefined
82      \usepackage[dvips]{graphicx}
83  \else
84      \usepackage[pdftex]{graphicx}
85      \usepackage{epstopdf}
86      \epstopdfsetup{suffix=}
87  \fi
88
89  % the default is for unnumbered section heads
90  % if you really must have numbered sections, remove
91  % the % from the beginning of the following command
92  % and insert the level of sections you wish to be
93  % numbered (up to 4):
94
95  % \setcounter{secnumdepth}{2}
96
97  \begin{document}
98
99  \title[IGS LATEX 2ε guide]{Journal of Glaciology
100  authors' guide to the IGS LATEX 2ε class file}
101
102  \author[Baxter and others]{Craig BAXTER,$^1$
103  Rachel BROWN,$^2$ \protect\thanks{Present address:
104  Centre for Glaciology, Institute of Geography and
105  Earth Sciences, University of Wales, Aberystwyth,
106  UK.}\ Louise BUCKINGHAM,$^3$
107  Magn\us M. MAGN\usson$^1$}
108
109  \affiliation{%
110  $^1$International Glaciological Society, Scott

```

```

111   Polar Research Institute, Cambridge, UK\\
112   $^2$Climate Change Institute, University of Maine,
113   303 Bryand Global Sciences Center, Orono,
114   ME, USA\\
115   $^3$Institute of Geological and Nuclear Sciences
116   Ltd, Lower Hutt, New Zealand\\
117   Correspondence: Craig Baxter
118   $<$craig@igsoc.org$>$}

```

```

119
120 \abstract{The design for the \emph{Journal of...
121 The abstract should be less than 200 words and
122 one paragraph long.}

```

```

123
124 \maketitle
125
126 \section{Using the IGS class file}

```

```

127

```

128 Lists

129 The IGS class file provides for numbered (`enumerate`) and unnumbered (`itemize`) lists. Nested lists are
 130 not encouraged. The default numbering system is 1., 2., 3., etc.; please do not change this unless there is
 131 a good reason. The IGS design removes bullet points from unnumbered lists.

132 User-defined macros

133 If possible, please do not define any new macros.

134 Tables

135 Tables may be typeset in either one- or two-column format. To typeset two-column format, add asterisks
 136 (`\begin{table*}...\end{table*}`) as shown in Table ???. We may change the format in-house if necessary.
 137 Please avoid the use of colour or shading. Note that if you choose to refer to tables using labels, `\caption`
 138 must precede `\label`, as in standard L^AT_EX. Vertical rules are not house-style and will be removed. Note
 139 the use of the `minipage` environment in Table ??? which enables table footnotes to be output. If the table

Table 1. One-column table captions will extend beyond the rules in two-column format. Do not try to adjust! Table captions do not have full points at the end

Period*	Surface elevation change	Emergence velocity
1975–85	−0.50	0.43
1986–2002	−1.03	0.32
Difference	−0.53	−0.11

*Please do not use more than one ‘&’ between columns, and note that if a table includes table footnotes, it must be inside a `minipage` environment.

```

\begin{table}% table1, one column
\caption{One-column table captions will extend beyond
the rules in two-column format. Do not try to adjust!
Table captions do not have full points at the end}
\label{period}
\begin{minipage}{86mm}% you only need this line if you
% have a table footnote
\begin{tabular}{@{}lcc}\hline
Period\footnote{Please do not use more than one ‘\&’
between columns, and note that if a table includes
table footnotes, it must be inside a \texttt{minipage}
environment.}%
& Surface elevation change
& Emergence velocity\\ \hline
1975--85 & $-0.50$ & 0.43\\
1986--2002 & $-1.03$ & 0.32\\
Difference & $-0.53$ & \llap{$-}$0.11
\end{tabular}
\end{minipage}% you only need this line if you have a
% table footnote
\end{table}

```

140 is two-column, use `{178mm}` instead of `{86mm}` on line 6. The source code for Tables ?? and ?? is shown
 141 immediately below the tables.

142 Figures

143 Figures may be typeset in either one- or two-column format. One-column format allows up to 86 mm (e.g.
 144 Fig. ??); two-column format up to 178 mm (e.g. Fig. ??). Please do not provide original graphics files in
 145 which the figure is a great deal larger or smaller than what you envisage will be the final printed size. To
 146 typeset two-column format, add asterisks (`\begin{figure*}...\end{figure*}`) as shown in Fig. ?. We
 147 may change the format in-house if necessary. Please note that if you choose to refer to figures using labels,
 148 `\caption` must precede `\label`, as in standard L^AT_EX.

149 Please send one file for each figure (in other words do not use subfigures) and use a name that clearly
 150 identifies it (e.g. ‘15J299Fig03.eps’).

151 In addition, figures should be eps, ai (illustrator), ps, tif, psd or pdf. Use strong black lines with a width
 152 of at least 0.75pt at final printed size (avoid tinting if possible) and SI units in labels. Lettering should
 153 ideally be Optima to match the final typeface; Arial or a similar sans serif font for a second choice. Aim to
 154 have the final-size lettering at 9pt, if possible. Figures should not be in boxes. The source code for Figs ??
 155 and ?? is shown immediately below the figures.

156 Equations

157 We are including some complex equations as examples. Equations should be checked for width using the
 158 `[twocolumn]` option. Note the use of arrays in the following equation:

$$\alpha_{t_2} = \begin{cases} \alpha_{t_1} - a_1[\ln(T+1)]e^{(a_2\sqrt{n})} & n_d > 0 \quad \text{and} \quad T > 0 \\ \alpha_{t_1} - a_3e^{(a_2\sqrt{n})} & n_d > 0 \quad \text{and} \quad T < 0 \\ \alpha_{t_1} + a_4P_s & n_d = 0 \end{cases} \quad (1)$$

159 Equation (??) above used the following code:

160

161 `\begin{equation}`

162 `\label{arrayexample}`

163 `\alpha_{t_2}= \left\{\%`

164 `\begin{array}{ll}`

165 `\alpha_{t_1} - a_1 [\ln (T+1)]`

Table 2. Two-column table. Seasonal and annual SAT trends (°C decade⁻¹) in the Arctic

Area	1951–2005					1976–2005				
	Dec–Feb	Mar–May	Jun–Aug	Sep–Nov	Annual	Dec–Feb	Mar–May	Jun–Aug	Sep–Nov	Annual
Atlantic region	0.09	0.29	0.10	0.09	0.15	0.470	0.60	0.45	0.53	0.59
Siberian region	0.12	0.29	0.04	0.17	0.16	0.08	0.69	0.29	0.59	0.48
Pacific region	0.45	0.46	0.25	0.26	0.35	0.712	1.08	0.27	0.66	0.52
Canadian region	0.16	0.12	0.14	0.30	0.18	0.20	0.52	0.48	0.94	0.53
Baffin Bay region	−0.02	0.10	0.00	0.15	0.02	0.33	0.62	0.51	0.80	0.57
Arctic 1	0.16	0.21	0.12	0.20	0.18	0.36	200.65	0.42	0.74	0.54
Arctic 2	0.22	0.29	0.14	0.14	0.19	0.38	0.60	0.40	0.51	0.45
Arctic 3	0.28	0.31	0.14	0.13	0.21	0.42	40.53	0.41	0.42	0.43
NH (land + ocean)	0.13	0.13	0.10	0.10	0.12	0.27	0.24	0.25	0.25	0.25

```

\begin{table*}% table2, two column
\caption{Two-column table. Seasonal and annual SAT trends ( $^{\circ}\text{C}\text{decade}^{-1}$ ) in the Arctic}
\label{seasonal}

% the following illustrates how to align columns on decimal points
% since all numbers are the same width in LaTeX, redefine a ? to take up the width of a number
% do not use if your table contains a genuine ?
\catcode'\?=\active \gdef?\{\setbox0=\hbox{0}\hbox to\wd0{}\}%
\setlength\tabcolsep{2.5pt}% column separation reduced from the default 6pt so the table fits the measure
\begin{tabular}{@{}l@{\hspace{20pt}}cccc@{\hspace{20pt}}cccc\hline
Area & \multicolumn{5}{c}{1951--2005} & \multicolumn{5}{c}{1976--2005}\\[5pt]
& Dec--Feb & Mar--May & Jun--Aug & Sep--Nov & Annual \\
& Dec--Feb & Mar--May & Jun--Aug & Sep--Nov & Annual\\ \hline
Atlantic region & 0.09 & 0.29 & 0.10 & 0.09 & 0.15 & 0.470 & 0.60 & 0.45 & 0.53 & 0.59\\
Siberian region & 0.12 & 0.29 & 0.04 & 0.17 & 0.16 & 0.08? & 0.69 & 0.29 & 0.59 & 0.48\\
Pacific region & 0.45 & 0.46 & 0.25 & 0.26 & 0.35 & 0.712 & 1.08 & 0.27 & 0.66 & 0.52\\
Canadian region & 0.16 & 0.12 & 0.14 & 0.30 & 0.18 & 0.20? & 0.52 & 0.48 & 0.94 & 0.53\\
Baffin Bay region & \llap{$-}0.02 & 0.10 & 0.00 & 0.15 & 0.02 & 0.33? & 0.62 & 0.51 & 0.80 & 0.57\\
Arctic 1 & 0.16 & 0.21 & 0.12 & 0.20 & 0.18 & 0.36? & 200.65 & 0.42 & 0.74 & 0.54\\
Arctic 2 & 0.22 & 0.29 & 0.14 & 0.14 & 0.19 & 0.38? & 0.60 & 0.40 & 0.51 & 0.45\\
Arctic 3 & 0.28 & 0.31 & 0.14 & 0.13 & 0.21 & 0.42? & 40.53 & 0.41 & 0.42 & 0.43\\
NH ( $\mathrm{land}$ 
+  $\mathrm{ocean}$ ) & 0.13 & 0.13 & 0.10 & 0.10 & 0.12 & 0.27? & 0.24 & 0.25 & 0.25 & 0.25

```



```

166      \mathrm{e}^{\{a_2\sqrt{n}\}}
167      & \mbox{$n_{\mathrm{d}} > 0$} \enskip$ and
168      $\enskip T > 0$}\\
169      \alpha_{t_1} - a_3 \mathrm{e}^{\{a_2\sqrt{n}\}}
170      & \mbox{$n_{\mathrm{d}} > 0$} \enskip$ and
171      $\enskip T < 0$}\\
172      \alpha_{t_1} + a_4 P_{\mathrm{s}}
173      & \mbox{$n_{\mathrm{d}} = 0$}
174  \end{array}
175  \right.
176  \end{equation}
177

```

Equations should be aligned on the equals signs where possible. Equations that extend beyond the one-column measure should be turned over before an operator. Note the `\skew4` command below which moves the bar over the R to the right. The value generally varies between `\skew1` and `\skew5`.

$$\begin{aligned}
 l_c = l_0 \left(\frac{\bar{R}_m}{R} \right)^2 \psi^{\frac{P}{P_0 \cos Z}} \\
 \times [\cos \beta \cos Z + \sin \beta \sin Z \cos(\psi_{\text{sun}} - \psi_{\text{slope}})]
 \end{aligned} \tag{2}$$

```

178 Equation (??) above used the following code:
179
180 \begin{eqnarray}
181 \label{eqnarrayexample}
182 l_c \&= l_0 \left( \frac{\skew4\bar{R}_m}{R} \right)^2
183 \psi^{\{\frac{P}{P_0 \cos Z}\} \nonumber \\
184 \&\& \mbox{}\times [\cos\beta\,, \cos Z
185 + \sin\beta\,, \sin Z\,, \cos(\psi_{\mathrm{sun}}
186 - \psi_{\mathrm{slope}})]
187 \end{eqnarray}
188

```

Typesetting upright Greek characters

The `igsupmath` package provides macros for upright lower-case Greek (`\ualpha`–`\uxi`), and for bold lower-case Greek (`\ubalpha`–`\ubxi`). The bold upright symbol `\eta` has to be treated differently, in this case use `\uboldeta`.

To use the `igsupmath` package, you need to have the AMS `eurm/b` fonts installed.

The AMS packages are supplied from the AMS L^AT_EX distribution. If you already have the AMS L^AT_EX distribution installed, you can safely delete the `ams*.sty` files (it is worth checking if the supplied files are newer). If you do not have them already, the latest AMS Fonts/AMS L^AT_EX distributions can be found at <http://ctan.org/>.

For upright characters add a `u`, and for upright bold characters, `ub`, e.g.

α	<code>\ualpha</code>	α	<code>\ubalpha</code>
β	<code>\ubeta</code>	β	<code>\ubbeta</code>
γ	<code>\ugamma</code>	γ	<code>\ubgamma</code>
δ	<code>\udelta</code>	δ	<code>\ubdelta</code>

Authors who do not have this font are requested to key their articles using the commands above. The characters will be substituted automatically by the typesetter.

Typesetting the partial symbol

The `igsupmath` package also provides `\upartial` and `\ubpartial`.

Provided you have the AMS fonts, you can use the style file `igsupmath.sty` to typeset the partial symbol, e.g.

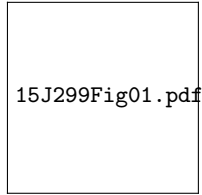
∂	<code>\upartial</code>	∂	<code>\ubpartial</code>
------------	------------------------	------------	-------------------------

Marginal notes

The IGS class file redefines the L^AT_EX command `\marginpar`. If you wish to add a marginal note such as *Editor!* the one alongside this text, you would key `\marginpar{Editor! Help!}`. Marginal notes will be removed *Help!* before printing.

References

All citations in text should include the author name(s) and the year of publication (e.g. ‘Smith, 2014’; ‘Smith and Jones, 2014’; ‘Smith and others, 2015’) and have an entry in the reference list.



15J299Fig01.pdf

Fig. 1. One-column figures should be ≤ 86 mm. Good artwork can make or break a paper. Capitalize the first word of a label and use round not square brackets for units.

```
\begin{figure}%fig1, one column
\centering{\includegraphics{15J299Fig01.eps}}
\caption{One-column figures should be  $\leq 86$  mm.
Good artwork can make or break a paper. Capitalize
the first word of a label and use round not square
brackets for units.}
\label{tracks}
\end{figure}
```

214 References should:

215 be short;

216 be complete and accurate;

217 be arranged in alphabetical order by first author's surname;

218 include too much rather than too little information;

219 include doi numbers where available (note that older bib databases often included doi's in the page field
220 – in which case they may appear after a comma and without braces);

221 include works accepted but not published as 'in press';

222 not include personal communications, unpublished data or manuscript in preparation or submitted for
223 publication, data published on the web (these should be included in the text).

224 Automatic references using BIB_TE_X

225 To generate automatic references from a bib database, you must first specify the database (we are using
 226 `igsrefs.bib`) and then the IGS bibliography style by placing the following two commands where you
 227 would like the references to appear (normally at the end of your paper, before `\end{document}`):

228

229 `\bibliography{igsrefs}`

230 `\bibliographystyle{igs}`

231

232 Then run through the following steps:

233 1. Run your paper through L^AT_EX.

234 2. Run BIB_TE_X on your paper.

235 3. Open the newly-created bbl file containing the cited references and copy the entire contents to just
 236 below the `\bibliography`/`\bibliographystyle` commands.

237 4. Then comment them out:

238 `%\bibliography{igsrefs}`

239 `%\bibliographystyle{igs}`

240 5. Run your paper through L^AT_EX *twice* more.

241 The IGS do not need your bib or bbl files. Note that BIB_TE_X will lose the second initial in the entry ‘Box
 242 JE’, for example, if it has been typed as ‘{J.E.} Box’ in the bib file. This is because any text in an entry
 243 enclosed in { } will be treated as a single unit, and will not be further parsed. Prof. Box’s name will typeset
 244 correctly if entered as ‘J. E. Box’ in the bib file.

245 If you have cited 16 references from the bib database, e.g. (?), (?), (?), (?), (?), (?), (?), (?), (?), (?),
 246 (?), (?), (?), (?), (?) and (?), the output will be just those 16 references and they will appear at the end
 247 of the article.

248 Citations using natbib commands

249 Note that the standard natbib style file has been modified to fall into line with IGS style. The modified
 250 style file is called igsnatbib.sty (included in this distribution), and works exactly the same as natbib.sty.
 251 The default IGS house style is (?). The following combinations are also available – refer to the natbib
 252 documentation if you require any further explanation:

`\cite{Yan13}`

(see ?, p. 34)

`\citep[see] [p. $\\$, $34] {Yan13}`

`\citep[see] [p. $\\$, $34] {Yan13}`

(?, Section 2.3)

`\citep[Section~2.3] {Yan13}`

(??)

`\citep{Yan13, Edwards14}`

253

??

`\cite{Yan13, Edwards14}`

`\citealt{Yan13}`

`\cite{Yan13}`

`\citealp{Yan13}`

`\citeauthor{Yan13}`

`\citeyearpar{Yan13}`

`\citeyear{Yan13}`

254 *Manual references*

255 References should be complete and conform to the IGS reference style. Particular points to note are that
 256 author names should be Surname followed by Initials, and that doi numbers, if available, must be included
 257 in parentheses at the end of the reference. Authors not using the bibliography style file igs.bst can either
 258 produce a reference list in plain text or produce the same output at the end of the guide by typing the
 259 references along the following lines:

260

261 `\begin{thebibliography}{16}`

262 `\providecommand{\natexlab}[1]{#1}`

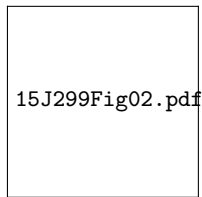


Fig. 2. Two-column figures should be ≤ 178 mm. SSA reconstructed components found by projecting the SSA filters found using the whole 2000 traces in Fig. 4, on trace number 1, ordered by magnitude of variance accounted for in the radar trace.

```
\begin{figure*}%fig2, two column
\centering{\includegraphics{15J299Fig02.eps}}
\caption{Two-column figures should be  $\leq 178$  mm. SSA reconstructed components found by
projecting the SSA filters found using the whole 2000 traces in Fig.~4, on trace number 1,
ordered by magnitude of variance accounted for in the radar trace.}
\label{filters}
\end{figure*}
```

```
263 \expandafter\ifx\csname urlstyle\endcsname\relax
264   \providecommand{\doi}[1]{doi: #1}\else
265   \providecommand{\doi}{doi: \begingroup
266     \urlstyle{rm}\Url}\fi
267
268 \bibitem[\protect\citenamelist{Edwards and others, }2014]
269   {Edwards14}
270   Edwards TL, Fettweis X, Gagliardini O,
271   Gillet-Chaulet F, Goelzer H, Gregory JM, Hoffman M,
272   Huybrechts P, Payne AJ, Perego M, Price S,
273   Quiquet A and Ritz C (2014) Effects of uncertainty
274   in surface mass balance-elevation feedback on
275   projections of the future sea level contribution
276   of the {G}reenland ice sheet. \emph{The Cryosphere},
277   \textbf{8}, 195--208 (\doi {10.5194/tc-8-195-2014})
```

278

279 \bibitem[\protect\citenamename{Gladstone and others, }2010]

280 {gladstone_grl_10}

281 Gladstone RM, Lee V, Vieli A and Payne AJ (2010)

282 Grounding line migration in an adaptive mesh ice

283 sheet model. \emph{J. Geophys. Res.-Earth},

284 \textbf{115}, F04014 (\doi {0.1029/2009JF001615})

285

286 \bibitem[\protect\citenamename{Goelzer and others, }2013]

287 {Goelzer13}

288 Goelzer H, Huybrechts P, F{"u}rst JJ, Nick FM,

289 Andersen ML, Edwards TL, Fettweis X, Payne AJ and

290 Shannon S (2013) Sensitivity of {G}reenland ice

291 sheet projections to model formulations.

292 \emph{J.~Glaciol.}, \textbf{59}(216), 733--749

293 (\doi {10.3189/2013JoG12J182})

294

295 \bibitem[\protect\citenamename{Goldberg and Sergienko, }2011]

296 {Goldberg11}

297 Goldberg DN and Sergienko OV (2011) Data assimilation

298 using a hybrid ice flow model. \emph{The Cryosphere},

299 \textbf{5}, 315--327 (\doi {10.5194/tc-5-315-2011})

300

301 \bibitem[\protect\citenamename{Hanna and others, }2013]

302 {Hanna13}

303 Hanna E, Navarro FJ, Pattyn F, Domingues CM,

304 Fettweis X, Ivins ER, Nicholls RJ, Ritz C, Smith B,

305 Tulaczyk S, Whitehouse PL and Zwally HJ (2013)

306 Ice-sheet mass balance and climate change. \emph{Nature},

307 \textbf{498}, 51--59 (\doi {10.1038/nature12238})

308

309 \bibitem[\protect\citenamename{Lucas-Picher and others, }2012]
 310 {Lucas12}
 311 Lucas-Picher P, Wulff-Nielsen M, Christensen JH,
 312 Adalgeirsd'ottir G, Mottram RH and Simonsen SB (2012)
 313 Very high resolution regional climate model simulations
 314 over Greenland: identifying added value. \emph{J. Geophys.
 315 Res.}, \textbf{117}, D02108 (\doi {10.1029/2011JD016267})

316

317 \bibitem[\protect\citenamename{Morlighem and others, }2010]
 318 {Morlighem10}
 319 Morlighem M, Rignot E, Seroussi H, Larour E, Dhia HB
 320 and Aubry D (2010) Spatial patterns of basal drag
 321 inferred using control methods from a full-Stokes and
 322 simpler models for Pine Island Glacier, West Antarctica.
 323 \emph{Geophys. Res. Lett.}, \textbf{37}, L14502
 324 (\doi {10.1029/2010GL043853})

325

326 \bibitem[\protect\citenamename{Morlighem and others, }2011]
 327 {Morlighem11}
 328 Morlighem M, Rignot E, Seroussi H, Larour E, Dhia HB
 329 and Aubry D (2011) A mass conservation approach for
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444 APPENDIX

- 445 Start an appendix by typing `\appendix\section{Appendix}`. Appendices appear after the references.
 446 Equation numbers automatically start again with (??).

$$2\eta\kappa\frac{\partial\bar{u}}{\partial t} + \rho_{\text{r}}g\bar{u} + D\kappa^4\bar{u} = \bar{\sigma}_{zz}. \quad (\text{A1})$$

447 HANDLING MORE THAN ONE APPENDIX

- 448 Use the following code to achieve heading APPENDIX A followed by APPENDIX B and APPENDIX C,
 449 with appropriate equation numbers:

450

451 `\appendix`

452 `\section{Appendix A}`

453

454 `\setcounter{equation}{0}`

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455 \renewcommand\theequation{B\arabic{equation}}
456 \section{Appendix B}
457
458 \setcounter{equation}{0}
459 \renewcommand\theequation{C\arabic{equation}}
460 \section{Appendix C}
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