

# **Title: Some Useful Preamble Examples**

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## 1 First Section

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.<sup>1</sup>

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<sup>1</sup>See awesome webpage at: [Awesome](#)

## 2 Second Section

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language. Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

### 2.1 First Subsection

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### 3 Math Section

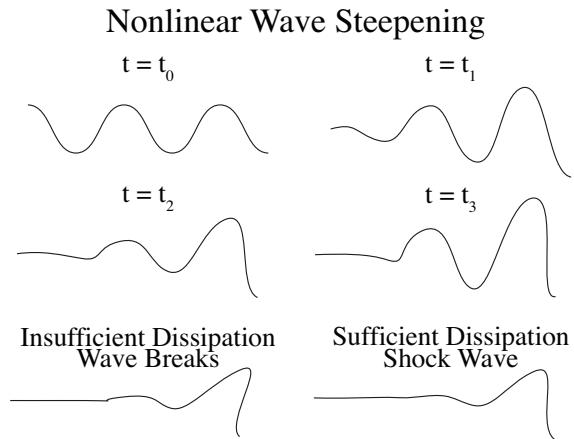
Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . If you read this text, you will get no information  $E = mc^2$ . Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ . Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look.  $\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$ . This text should contain all letters of the alphabet and it should be written in of the original language.  $a \sqrt[n]{b} = \sqrt[n]{a^n b}$ . There is no need for a special contents, but the length of words should match to the language.  $d\Omega = \sin \vartheta d\vartheta d\varphi$ .

## 4 Figure Section

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

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**FIG. S1:** Figure illustrating how larger amplitude waves can catch smaller amplitude waves and eventually over-run (wave breaking) or match (stable discontinuity) their position.



## 5 Special Characters Section

In this section I provide a few examples of how to typeset special characters. You may need to use the ***inputenc*** package with the option *utf8* set.<sup>2</sup>

Table I: Special Character Commands in Text and Math Mode

Text Command	Math Command	Text Result	Math Result	Description
<code>\'{o}</code>	<code>\grave{o}</code>	ò	ò	grave accent
<code>\'o</code>	<code>\acute{o}</code>	ó	ó	acute accent
<code>\^o</code>	<code>\hat{o}</code>	ô	ô	circumflex
<code>\"o</code>	<code>\ddot{o}</code>	ö	ö	umlaut, trema or dieresis
<code>\H{o}</code>		ő		long Hungarian umlaut (double acute)
<code>\~o</code>	<code>\tilde{o}</code>	õ	õ	tilde
<code>\={o}</code>	<code>\bar{o}</code>	ō	ō	macron accent (a bar over the letter)
<code>\b{o}</code>		o̅		bar under the letter
<code>\.o</code>	<code>\dot{o}</code>	ó	ó	dot over the letter
<code>\u{o}</code>	<code>\breve{o}</code>	ö	ö	breve over the letter
<code>\c{c}</code>		ç		cedilla
<code>\d{u}</code>		u̇		dot under the letter
<code>\r{a}</code>		å		ring over the letter
<code>\v{s}</code>	<code>\check{s}</code>	š	š	caron/hacek (“v”) over the letter
<code>\l</code>		ł		l with stroke
<code>\t{oo}</code>		ôo		caron/hacek (“v”) over the letter
<code>\^i</code>	<code>\hat{\imath}</code>	î	î	circumflex (removes dot above i or j)
<code>\"j</code>	<code>\ddot{\jmath}</code>	ĵ	ĵ	circumflex (removes dot above i or j)
<code>\%</code>	<code>\%</code>	%	%	percent
<code>\\$</code>	<code>\\$</code>	\$	\$	dollar
<code>\#</code>	<code>\#</code>	#	#	pound or hash
<code>\&amp;</code>	<code>\&amp;</code>	&	&	ampersand
<code>\S</code>	<code>\mathcal{x}</code>	§	§	
<code>\dag</code>	<code>\dagger</code>	†	†	dagger
<code>\ddag</code>	<code>\ddagger</code>	‡	‡	double-dagger

<sup>2</sup>If you examine the source file (*useful\_examples.tex*) for this PDF file, you will see an example of how to create a table.

## 6 Citation Section

In this section I provide a few simple examples of how to cite a reference. The bibliography style file, *agu08.bst*, can be found at [AGU Author Resources](#). The *BibTeX* file or *.bib* file, *my\_bib\_maker.bib*, can be found at [Awesome Webpage](#), which is probably the same site where you found this file. Two useful websites for information on *BibTeX* can be found at either

<http://en.wikipedia.org/wiki/BibTeX>

or

[http://en.wikibooks.org/wiki/LaTeX/Bibliography\\_Management](http://en.wikibooks.org/wiki/LaTeX/Bibliography_Management).

There are multiple ways to use the citation referencing system in  $\text{\LaTeX}$  and *BibTeX*. If you want the in-text citation to show the author and year, you can use:

```
\citep[<before>][<after>]{citekey}
```

where *citekey* is the label associated with any given bibliography entry and *before(after)* places text before(after) the formatted in-text citation. For instance, consider the following lines from *Wilson III et al.* [2013]:

“... shocklets and SLAMS causes them to dispersively radiate higher frequency electromagnetic whistler precursor waves as they steepen and they are always observed simultaneously with diffuse ion distributions [e.g., *Wilson III et al.*, 2009, and references therein] ...”

The citation to *Wilson III et al.* [2009] was created using the following:

```
\citep[e.g.,][and references therein]{wilsoniii09a}
```

where *wilsoniii09a* is the cite-key in *my\_bib\_maker.bib*. Now if we wish to refer to a citation as in *The work performed by...*, then we use:

```
\citet[<before>][<after>]{citekey}
```

where the only change was the suffix for the `\cite` command. For instance, to produce *Wilson III et al.* [see 2013, on page 1], we set *before*  $\rightarrow$  *see* and *after*  $\rightarrow$  *on page 1*.

For numbered citation styles (e.g., as in *Physical Review Letters* or *Nature*), we only use:

```
\cite{citekey}
```

Note, however, that the options specified in the call in the preamble:

```
\usepackage[<options>]{natbib}
```

would need to change. In the  $\text{\LaTeX}$  file that produced this PDF file, the current options that set are *square*, *authoryear*, and *compress*.

## 6.1 Bib File Section

In this section I will provide some basic info about the format of the entries in the *.bib* file. I will refer the reader to the *BibTeX* websites listed in Section 6 (or examine the examples in *my\_bib\_maker.bib*) for more details<sup>3</sup>. The structure of each entry is straightforward, shown by:

```
@<entry type>{citekey,
  author   = {{Wilson III}, L.~B. and ...},
  title    = "{Title of <paper/article/book> ...}",
  <option> = .
  <option> = .
  <option> = .
  .
  .
  .
}
```

where *<entry type>* can be any of the following: article, book, booklet, conference, inbook, in-collection, inproceedings, mastersthesis, misc, phdthesis, proceedings, unpublished, etc. The list of possible inputs for *<option>* depends upon the value of *<entry type>*. As an example, the entry for the *Wilson III et al.* [2013] paper in the *my\_bib\_maker.bib* file is given by:

```
@ARTICLE{wilsoniii13b,
  author = {{Wilson III}, L.~B. and {Koval}, A. and {Sibeck}, D.~G. and
           {Szabo}, A. and {Cattell}, C.~A. and {Kasper}, J.~C. and
           {Maruca}, B.~A. and {Pulupa}, M. and {Salem}, C.~S. and {Wilber}, M.},
  title = "{Shocklets, SLAMS, and field-aligned ion beams in the terrestrial
           foreshock}",
  journal = {J. Geophys. Res.},
  keywords = {Interplanetary Physics: Interplanetary shocks, 7845 Particle
              acceleration, 2159 Plasma waves and turbulence, 7829 Kinetic waves
              and instabilities},
  year = 2013,
  month = apr,
  volume = 118,
  pages = {957{966}},
  doi = {10.1029/2012JA018186},
  adsurl = {http://adsabs.harvard.edu/abs/2013JGRA..118..957W},
  adsnote = {Provided by the SAO/NASA Astrophysics Data System}
}
```

Note that the line wrapping shown here is merely for presentation purposes. One can also see that the *<entry type>* input is not case-sensitive.

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<sup>3</sup>Many journals include in their *export citation* option a *BibTeX* format. A very useful resource with available pre-defined *BibTeX* entries for millions of articles is [SAO/NASA ADS](http://adsabs.harvard.edu).

## References

- Wilson III, L. B., C. A. Cattell, P. J. Kellogg, K. Goetz, K. Kersten, J. C. Kasper, A. Szabo, and K. Meziane (2009), Low-frequency whistler waves and shocklets observed at quasi-perpendicular interplanetary shocks, *J. Geophys. Res.*, *114*, A10106, doi:10.1029/2009JA014376.
- Wilson III, L. B., et al. (2013), Shocklets, SLAMS, and field-aligned ion beams in the terrestrial foreshock, *J. Geophys. Res.*, *118*, 957–966, doi:10.1029/2012JA018186.