#### ARTICLE TEMPLATE

# Taylor & Francis Rmarkdown template for authors (LATEX-based Interact layout + Chicago author-date reference style)

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#### ARTICLE HISTORY

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#### ABSTRACT

This template is for authors who are preparing a manuscript for a Taylor & Francis journal using the LATEX document preparation system and the 'interact' class file, which is available via selected journals' home pages on the Taylor & Francis website.

#### **KEYWORDS**

Sections; lists; figures; tables; mathematics; fonts; references; appendices

## 1. Introduction

In order to assist authors in the process of preparing a manuscript for a journal, the Taylor & Francis 'Interact' layout style has been implemented as a LATEX  $2\varepsilon$  class file based on the article document class. A BIBTEX bibliography style file and a sample bibliography are also provided in order to assist with the formatting of your references.

Commands that differ from or are provided in addition to standard LATEX  $2_{\varepsilon}$  are described in this document, which is *not* a substitute for a LATEX  $2_{\varepsilon}$  tutorial.

The interactcadsample.tex file can be used as a template for a manuscript by cutting, pasting, inserting and deleting text as appropriate, using the preamble and the LATEX environments provided (e.g. \begin{abstract}, \begin{keywords}).

theorem and math environments 1.1

**Theorem 1.1** (Pythagorean theorem). For a right triangle, if c denotes the length of the hypotenuse and a and b denote the lengths of the other two sides, we have

$$a^2 + b^2 = c^2$$

cross referencing figures 1

## library(dplyr)

##

## Attaching package: 'dplyr'

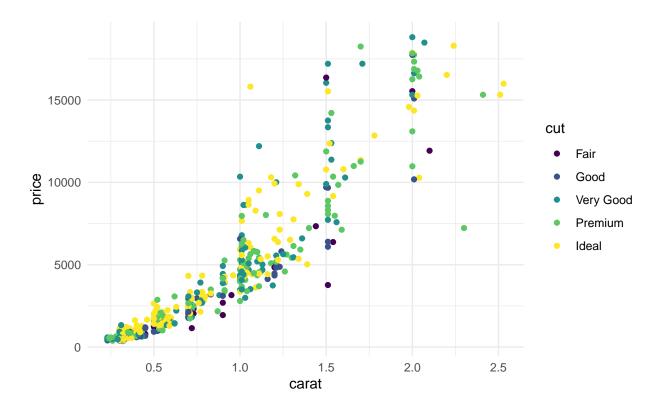


Figure 1. this is a figure

## The following objects are masked from 'package:stats':

```
##
## filter, lag

## The following objects are masked from 'package:base':
##
## intersect, setdiff, setequal, union

library(ggplot2)

diamonds %>%
    slice_sample(n = 500) %>%
    ggplot() +
    geom_point(aes(carat, price, color = cut)) +
```

cross referencing tables 1

theme\_minimal()

# 1.1. The Interact class file

The interact class file preserves the standard  $\LaTeX$   $2_{\varepsilon}$  interface such that any document that can be produced using article.cls can also be produced with minimal alteration using the interact class file as described in this document.

If your article is accepted for publication it will be typeset as the journal requires in Minion Pro and/or Myriad Pro. Since most authors will not have these fonts installed,

Table 1. my table

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa

the page make-up is liable to alter slightly with the change of font. Also, the interact class file produces only single-column format, which is preferred for peer review and will be converted to two-column format by the typesetter if necessary during preparation of the proofs. Please therefore do not try to match the typeset format exactly, but use the standard LATEX fonts instead and ignore details such as slightly long lines of text or figures/tables not appearing in exact synchronization with their citations in the text: these details will be dealt with by the typesetter. Similarly, it is unnecessary to spend time addressing warnings in the log file – if your .tex file compiles to produce a PDF document that correctly shows how you wish your paper to appear, such warnings will not prevent your source files being imported into the typesetter's program.

## 1.2. Submission of manuscripts prepared using LATEX

Manuscripts for possible publication should be submitted to the Editors for review as directed in the journal's Instructions for Authors, and in accordance with any technical instructions provided in the journal's ScholarOne Manuscripts or Editorial Manager site. Your LATEX source file(s), the class file and any graphics files will be required in addition to the final PDF version when final, revised versions of accepted manuscripts are submitted.

Please ensure that any author-defined macros used in your article are gathered together in the preamble of your .tex file, i.e. before the \begin{document} command. Note that if serious problems are encountered in the coding of a document (missing author-defined macros, for example), the typesetter may resort to rekeying it.

# 2. Using the interact class file

For convenience, simply copy the interact.cls file into the same directory as your manuscript files (you do not need to install it in your TEX distribution). In order to use the interact document class, replace the command \documentclass{article} at the beginning of your document with the command \documentclass{interact}.

The following document-class options should *not* be used with the interact class file:

- 10pt, 11pt, 12pt unavailable;
- oneside, twoside not necessary, oneside is the default;
- leqno, titlepage should not be used;
- twocolumn should not be used (see Subsection ???);
- onecolumn not necessary as it is the default style.

To prepare a manuscript for a journal that is printed in A4 (two column) format, use the largeformat document-class option provided by interact.cls; otherwise the class file produces pages sized for B5 (single column) format by default. The geometry package should not be used to make any further adjustments to the page dimensions.

#### 3. Additional features of the interact class file

# 3.1. Title, authors' names and affiliations, abstracts and article types

#### 3.2. Abbreviations

A list of abbreviations may be included if required, enclosed within an abbreviations environment, i.e. \begin{abbreviations}...\end{abbreviations}, immediately following the abstract environment.

# 3.3. Keywords

A list of keywords may be included if required, enclosed within a keywords environment, i.e. \begin{keywords}...\end{keywords}. Additional keywords in other languages (preceded by a translation of the word keywords) may also be included within the keywords environment if required.

## 3.4. Subject classification codes

AMS, JEL or PACS classification codes may be included if required. The interact class file provides an amscode environment, i.e. \begin{amscode}...\end{amscode}, a jelcode environment, i.e. \begin{jelcode}...\end{jelcode}, and a pacscode environment, i.e. \begin{pacscode}...\end{pacscode} to assist with this.

# 3.5. Additional footnotes to the title or authors' names

Note that any footnotes to the main text will automatically be assigned the super-script symbols 1, 2, 3, etc. by the class file.<sup>1</sup>

## 4. Embedding R code

#### 4.1. Code chunks

#### summary(cars)

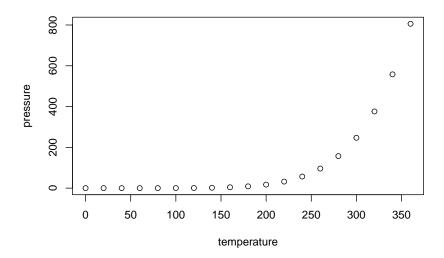
```
##
                         dist
        speed
           : 4.0
                           :
                              2.00
##
   Min.
                    Min.
    1st Qu.:12.0
                    1st Qu.: 26.00
##
   Median:15.0
                    Median: 36.00
##
   Mean
           :15.4
                           : 42.98
                    Mean
```

<sup>&</sup>lt;sup>1</sup>If preferred, the **endnotes** package may be used to set the notes at the end of your text, before the bibliography. The symbols will be changed to match the style of the journal if necessary by the typesetter.

```
## 3rd Qu.:19.0 3rd Qu.: 56.00
## Max. :25.0 Max. :120.00
```

## 4.2. Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## 5. Some guidelines for using the standard features of LATEX

#### 5.1. Sections

The Interact layout style allows for five levels of section heading, all of which are provided in the interact class file using the standard IATEX commands \section, \subsection, \subsection, \paragraph and \subparagraph. Numbering will be automatically generated for all these headings by default.

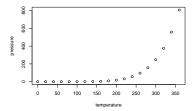
#### 5.2. Lists

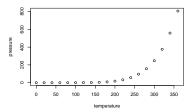
Numbered lists are produced using the enumerate environment, which will number each list item with arabic numerals by default. For example,

- 1. first item
- 2. second item
- 3. third item

Alternative numbering styles can be achieved by inserting an optional argument in square brackets to each item, e.g. \item[(i)] first item, to create a list numbered with roman numerals at level one.

Bulleted lists are produced using the itemize environment. For example,





- (a) An example of an individual figure sub-caption.
- (b) A slightly shorter sub-caption.

Figure 2. Example of a two-part figure with individual sub-captions showing that captions are flush left and justified if greater than one line of text.

- First bulleted item
- Second bulleted item
- Third bulleted item

# 5.3. Figures

## plot(pressure)

The interact class file will deal with positioning your figures in the same way as standard LATEX. It should not normally be necessary to use the optional [htb] location specifiers of the figure environment in your manuscript; you may, however, find the [p] placement option or the endfloat package useful if a journal insists on the need to separate figures from the text.

Figure captions appear below the figures themselves, therefore the \caption command should appear after the body of the figure. For example, Figure 2 with caption and sub-captions is produced using the following commands:

```
\begin{figure}
\centering
\subfigure[An example of an individual figure sub-caption.]{%
\resizebox*{5cm}{!}{\includegraphics{path/to/fig}}}\hspace{5pt}
\subfigure[A slightly shorter sub-caption.]{%
\resizebox*{5cm}{!}{\includegraphics{path/to/fig}}}
\caption{Example of a two-part figure with individual sub-captions showing that captions are flush left and justified if greater than one line of text.} \label{sample-figure}
\end{figure}
```

To ensure that figures are correctly numbered automatically, the \label command should be included just after the \caption command, or in its argument.

The \subfigure command requires subfigure.sty, which is called in the preamble of the interacttfssample.tex file (to allow your choice of an alternative package if preferred) and included in the Interact LATEX bundle for convenience. Please supply any additional figure macros used with your article in the preamble of your .tex file.

The source files of any figures will be required when the final, revised version of a manuscript is submitted. Authors should ensure that these are suitable (in terms of

**Table 2.** Example of a table showing that its caption is as wide as the table itself and justified.

	Туре							
Class	One	Two	Three	Four	Five	Six		
Alpha <sup>a</sup>	A1	A2	A3	A4	A5	A6		
Beta	B2	B2	B3	B4	B5	B6		
Gamma	C2	C2	C3	C4	C5	C6		

<sup>&</sup>lt;sup>a</sup>This footnote shows how to include footnotes to a table if required.

lettering size, etc.) for the reductions they envisage.

The epstopdf package can be used to incorporate encapsulated PostScript (.eps) illustrations when using PDFIATEX, etc. Please provide the original .eps source files rather than the generated PDF images of those illustrations for production purposes.

#### 5.4. Tables

The interact class file will deal with positioning your tables in the same way as standard LATEX. It should not normally be necessary to use the optional [htb] location specifiers of the table environment in your manuscript; you may, however, find the [p] placement option or the endfloat package useful if a journal insists on the need to separate tables from the text.

The tabular environment can be used as shown to create tables with single horizontal rules at the head, foot and elsewhere as appropriate. The captions appear above the tables in the Interact style, therefore the \tbl command should be used before the body of the table. For example, Table 2 is produced using the following commands:

```
\begin{table}
\tbl{Example of a table showing that its caption is as wide as
the table itself and justified.}
{\begin{tabular}{1ccccc} \toprule
    & \multicolumn{2}{1}{Type} \\ \cmidrule{2-7}
Class & One & Two & Three & Four & Five & Six \\ \midrule
    Alpha\textsuperscript{a} & A1 & A2 & A3 & A4 & A5 & A6 \\
    Beta & B2 & B2 & B3 & B4 & B5 & B6 \\
    Gamma & C2 & C2 & C3 & C4 & C5 & C6 \\ \bottomrule
    \end{tabular}}
\tabnote{\textsuperscript{a}This footnote shows how to include
    footnotes to a table if required.}
\label{sample-table}
\end{table}
```

To ensure that tables are correctly numbered automatically, the \label command should be included just before \end{table}.

The \toprule, \midrule, \bottomrule and \cmidrule commands are those used by booktabs.sty, which is called by the interact class file and included in the Interact IATEX bundle for convenience. Tables produced using the standard commands of the tabular environment are also compatible with the interact class file.

## 5.5. Landscape pages

If a figure or table is too wide to fit the page it will need to be rotated, along with its caption, through 90° anticlockwise. Landscape figures and tables can be produced using the rotating package, which is called by the interact class file. The following commands (for example) can be used to produce such pages.

Before any such float environment, use the \setcounter command as above to fix the numbering of the caption (the value of the counter being the number given to the preceding figure or table). Subsequent captions will then be automatically renumbered accordingly. The \epsfbox command requires epsfig.sty, which is called by the interact class file and is also included in the Interact LATEX bundle for convenience.

Please note that if the endfloat package is used, one or both of the commands

```
\DeclareDelayedFloatFlavor{sidewaysfigure}{figure}
\DeclareDelayedFloatFlavor{sidewaystable}{table}
```

will need to be included in the preamble of your .tex file, after the endfloat package is loaded, in order to process any landscape figures and/or tables correctly.

#### 5.6. Theorem-like structures

A predefined proof environment is provided by the amsthm package (which is called by the interact class file), as follows:

**Proof.** More recent algorithms for solving the semidefinite programming relaxation are particularly efficient, because they explore the structure of the MAX-CUT problem.

This was produced by simply typing:

```
\begin{proof}
More recent algorithms for solving the semidefinite programming
relaxation are particularly efficient, because they explore the
structure of the MAX-CUT problem.
\end{proof}
```

Other theorem-like environments (theorem, definition, remark, etc.) need to be defined as required, e.g. using \newtheorem{theorem}{Theorem} in the preamble of your .tex file (see the preamble of interactcadsample.tex for more examples). You can define the numbering scheme for these structures however suits your article best. Please note that the format of the text in these environments may be changed if necessary to match the style of individual journals by the typesetter during preparation of the proofs.

#### 5.7. Mathematics

# 5.7.1. Displayed mathematics

The interact class file will set displayed mathematical formulas centred on the page without equation numbers if you use the displaymath environment or the equivalent \[...\] construction. For example, the equation

$$\hat{\theta}_{w_i} = \hat{\theta}(s(t, \mathcal{U}_{w_i}))$$

was typeset using the commands

For those of your equations that you wish to be automatically numbered sequentially throughout the text for future reference, use the equation environment, e.g.

$$\hat{\theta}_{w_i} = \hat{\theta}(s(t, \mathcal{U}_{w_i})) \tag{1}$$

was typeset using the commands

```
\begin{equation}
  \hat{\theta}_{w_i} = \hat{\theta}(s(t,\mathbb{U}_{w_i}))
\end{equation}
```

Part numbers for sets of equations may be generated using the **subequations** environment, e.g.

$$\varepsilon \rho w_{tt}(s,t) = N[w_s(s,t), w_{st}(s,t)]_s, \tag{2a}$$

$$w_{tt}(1,t) + N[w_s(1,t), w_{st}(1,t)] = 0,$$
 (2b)

which was typeset using the commands

```
\begin{subequations} \label{subeqnexample}
\begin{equation}
    \varepsilon \rho w_{tt}(s,t) = N[w_{s}(s,t),w_{st}(s,t)]_{s},
    \label{subeqnparta}
\end{equation}
```

```
 \begin{equation} $w_{tt}(1,t)+N[w_{s}(1,t),w_{st}(1,t)] = 0, \\ \end{equation} \end{subequations}
```

Displayed mathematics should be given end-of-line punctuation appropriate to the running text sentence of which it forms a part, if required.

## 5.7.2. Math fonts

- 5.7.2.1. Superscripts and subscripts. Superscripts and subscripts will automatically come out in the correct size in a math environment (i.e. enclosed within  $\setminus (\ldots \setminus)$  or  $\ldots$  commands in running text, or within  $\in \ldots$  or the equation environment for displayed equations). Sub/superscripts that are physical variables should be italic, whereas those that are labels should be roman (e.g.  $C_p$ ,  $T_{\text{eff}}$ ). If the subscripts or superscripts need to be other than italic, they must be coded individually.
- 5.7.2.2. Upright Greek characters and the upright partial derivative sign. Upright lowercase Greek characters can be obtained by inserting the letter u in the control code for the character, e.g. \umanumum and \umanum upi produce \mu (used, for example, in the symbol for the unit microns \mum) and \pi (the ratio of the circumference of a circle to its diameter). Similarly, the control code for the upright partial derivative \(\partial\) is \upartial. Bold lowercase as well as uppercase Greek characters can be obtained by \(\text{\text{bm \gamma}}\), for example, which gives \(\gamma\), and \(\text{\text{bm \Gamma}}\), which gives \(\Gamma\).

# Acknowledgement(s)

An unnumbered section, e.g. \section\*{Acknowledgements}, may be used for thanks, etc. if required and included in the non-anonymous version before any Notes or References.

#### Disclosure statement

An unnumbered section, e.g. \section\*{Disclosure statement}, may be used to declare any potential conflict of interest and included in the non-anonymous version before any Notes or References, after any Acknowledgements and before any Funding information.

#### **Funding**

An unnumbered section, e.g. \section\*{Funding}, may be used for grant details, etc. if required and included in the non-anonymous version before any Notes or References.

## Notes on contributor(s)

An unnumbered section, e.g. \section\*{Notes on contributors}, may be included in the non-anonymous version if required. A photograph may be added if requested.

## Nomenclature/Notation

An unnumbered section, e.g. \section\*{Nomenclature} (or \section\*{Notation}), may be included if required, before any Notes or References.

#### Notes

An unnumbered Notes section may be included before the References (if using the endnotes package, use the command \theendnotes where the notes are to appear, instead of creating a \section\*).

#### 6. References

#### 6.1. References cited in the text

# 6.2. The list of references

References should be listed at the end of the main text in alphabetical order by authors' surnames, then chronologically (earliest first). If references have the same author(s), editor(s), etc., arrange by year of publication, with undated works at the end. A single-author entry precedes a multi-author entry that begins with the same name. If the reference list contains two or more items by the same author(s) in the same year, add a, b, etc. and list them alphabetically by title. Successive entries by two or more authors when only the first author is the same are alphabetized by co-authors' surnames. If a reference has more than ten named authors, list only the first seven, followed by 'et al.'. If a reference has no author or editor, order by title; if a date of publication is impossible to find, use 'n.d.' in its place.

The following list shows some sample references prepared in the Taylor & Francis Chicago author-date style.

(Adelman 2009; Albiston 2005)

#### References

Adelman, Rachel. 2009. "Such Stuff as Dreams Are Made On': God's Footstool in the Aramaic Targumim and Midrashic Tradition." Paper presented at the annual meeting for the Society of Biblical Literature, New Orleans, Louisiana, Nov. 21-24.

Albiston, Catherine R. 2005. "Bargaining in the Shadow of Social Institutions: Competing Discourses and Social Change in the Workplace Mobilization of Civil Rights." *Law and Society Review* 39 (1): 11–47.

## 7. Appendices

Any appendices should be placed after the list of references, beginning with the command \appendix followed by the command \section for each appendix title, e.g.

```
\appendix
\section{This is the title of the first appendix}
\section{This is the title of the second appendix}
produces:
```

## Appendix A. This is the title of the first appendix

# Appendix B. This is the title of the second appendix

Subsections, equations, figures, tables, etc. within appendices will then be automatically numbered as appropriate. Some theorem-like environments may need to have their counters reset manually (e.g. if they are not numbered within sections in the main text). You can achieve this by using \numberwithin{remark}{section} (for example) just after the \appendix command.

Please note that if the endfloat package is used on a document containing appendices, the \processdelayedfloats command must be included immediately before the \appendix command in order to ensure that the floats in the main body of the text are numbered as such.

# Appendix A. Troubleshooting

Authors may occasionally encounter problems with the preparation of a manuscript using LATEX. The appropriate action to take will depend on the nature of the problem:

- (i) If the problem is with LATEX itself, rather than with the actual macros, please consult an appropriate LATEX  $2_{\varepsilon}$  manual for initial advice. If the solution cannot be found, or if you suspect that the problem does lie with the macros, then please contact Taylor & Francis for assistance (latex.helpdesk@tandf.co.uk).
- (ii) Problems with page make-up (e.g. occasional overlong lines of text; figures or tables appearing out of order): please do not try to fix these using 'hard' page make-up commands the typesetter will deal with such problems. (You may, if you wish, draw attention to particular problems when submitting the final version of your manuscript.)
- (iii) If a required font is not available on your system, allow TEX to substitute the font and specify which font is required in a covering letter accompanying your files.

# Appendix B. Obtaining the template and class file

## B.1. Via the Taylor & Francis website

This article template and the interact class file may be obtained via the 'Instructions for Authors' pages of selected Taylor & Francis journals.

Please note that the class file calls up the open-source LATEX packages booktabs.sty, epsfig.sty and rotating.sty, which will, for convenience, unpack with the downloaded

template and class file. The template calls for natbib.sty and subfigure.sty, which are also supplied for convenience.

# B.2. Via e-mail

This article template, the interact class file and the associated open-source LATEX packages are also available via e-mail. Requests should be addressed to latex.helpdesk@tandf.co.uk, clearly stating for which journal you require the template and class file.