#### RESEARCH ARTICLE

# A demonstration of the LATEX class file for Statistics in Medicine with Rmarkdown

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#### **Present Address**

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#### KEYWORDS:

Class file; LATEX; Statist. Med.; Rmarkdown;

### 1 | THE ARTICLE HEADER INFORMATION

YAML header:

output:

rticles::sim\_article:
 keep\_tex: TRUE

Configure the YAML header including the following elements:

• title: Title

• author: List of author(s) containing name and num

• address: List containing num and org for defining author affiliations

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- presentaddress: Not sure what they mean with this
- corres: Author and address for correspondence
- authormark: Short author list for header
- received, revised, accepted: dates of submission, revision, and acceptance of the manuscript
- abstract: Limited to 250 words
- keywords: Up to 6 keywords
- bibliography: BibTeX .bib file
- classoption: options of the WileyNJD-v2 class
- longtable: set to true to include the longtable package, used by default from pandoc to convert markdown to LATEXcode

#### 1.1 | Remarks

- 1. In authormark use *et al.* if there are three or more authors.
- 2. Note the use of num to link names and addresses.
- 3. For submitting a double-spaced manuscript, add doublespace as an option to a classoption line in the YAML header: classoption: doublespace.
- 4. Keywords are separated by semicolons.

#### 2 | THE BODY OF THE ARTICLE

#### 2.1 | Mathematics

Use mathematics in Rmarkdown as usual.

# 2.2 | Figures and Tables

Figures are supported from R code:

```
x = rnorm(10)
y = rnorm(10)
plot(x, y)
```

Analogously, use Rmarkdown to produce tables as usual:

```
if (!require("xtable")) install.packages("xtable")
## Loading required package: xtable

xt <- xtable(head(cars), caption = "A table", label = "tab:table")
print(xt, comment = FALSE)</pre>
```

Referenced via 1 . You can also use the YAML option header-includes to includes custom LaTeXpackages for tables (keep in mind that pandoc uses longtables by default, and it is hardcoded; some things may require including the package longtable). E.g., using ctable:

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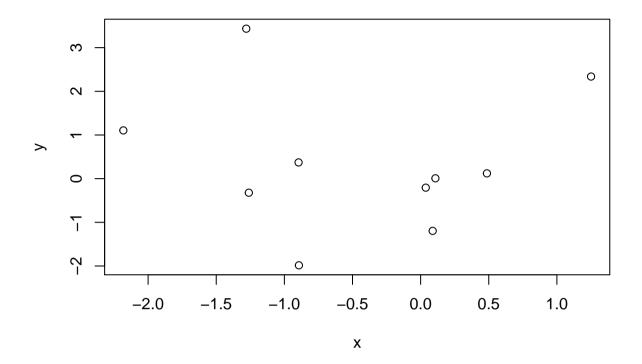


FIGURE 1 Fancy Caption

	speed	dist
1	4.00	2.00
2	4.00	10.00
3	7.00	4.00
4	7.00	22.00
5	8.00	16.00
6	9.00	10.00

TABLE 1 A table

### header-includes:

- \usepackage{ctable}

Then, just write straight-up LATeXcode and reference is as usual (\ref{tab:ctable}):

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```
}{
    \FL
    COL 1\tmark[a] & COL 2\tmark[$\ast$]
    \ML
    6.92\tmark[$\dagger$] & 0.09781 \\
    6.93\tmark[$\dagger$] & 0.09901 \\
    97 & 2000
    \LL
}
```

It is also possible to set the YAML option longtable: true and use markdown tables (or the knitr::kable function): knitr::kable(head(cars)) produces the same table as the xtable example presented before.

# 2.3 | Cross-referencing

The use of the Rmarkdown equivalent of the LaTeXcross-reference system for figures, tables, equations, etc., is encouraged (using [@<name>], equivalent of \ref{<name>} and \labelf<name>}). That works well for citations in Rmarkdown, not so well for figures and tables. In that case, it is possible to revert to standard LaTeXsyntax.

# 2.4 | Double Spacing

If you need to double space your document for submission please use the doublespace option in the header.

#### 3 | BIBLIOGRAPHY

Link a .bib document via the YAML header, and bibliography will be printed at the very end (as usual). The default bibliography style is provided by Wiley as in WileyNJD-AMA.bst, do not delete that file.

Use the Rmarkdown equivalent of the LATEXcitation system using [@<name>]. Example: 1, 2.3.

To include all citation from the .bib file, add \nocite{\*} before the end of the document.

#### 4 | FURTHER INFORMATION

All LATEX environments supported by the main template are supported here as well; see the .tex sample file here for more details and example.

#### References

- 1. Taylor GI, Green AE. Mechanism of the production of small eddies from large ones. *P Roy Soc Lond A Mat.* 1937;158(895):499–521.
- 2. Knupp PM. Winslow smoothing on two-dimensional unstructured meshes. *Eng Comput.* 1999;15:263–268.
- 3. Kamm J. Evaluation of the Sedov-von Neumann-Taylor blast wave solution. Technical Report LA-UR-00-6055: Los Alamos National Laboratory; 2000.