

ARTICLE TYPE

# Cambridge Data/Maths Template Class File

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**Keywords:** keyword1, keyword2, keyword3, keyword4

**MSC Codes:** *Primary* – CODE1; *Secondary* – CODE2, CODE3

## Abstract

Abstracts should be 250 words. It must be able to stand alone and so cannot contain citations to the paper’s references, equations, etc. An abstract must consist of a single paragraph and be concise. Because of online formatting, abstracts must appear as plain as possible.

## Impact Statement

Some Data journals (DAP, DCE) require an ‘Impact Statement’ section. Comment out this section if it is not required.

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## 1. This is an A head this is an A head this is an A head

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## **2. This is an A head this is an A head this is an A head this is an A head**

### **2.1. This is a B head this is a B head this is a B head this is a B head this is a B head**

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## **3. Equations**

Equations in  $\LaTeX$  can either be inline or on-a-line by itself. For inline equations use the  $\dots$  commands. Eg: The equation  $H\psi = E\psi$  is written via the command  $H\psi = E\psi$ .

For on-a-line by itself equations (with auto generated equation numbers) one can use the equation or eqnarray environments  $D$ .

$$\mathcal{L} = i\psi\gamma^\mu D_\mu\psi - \frac{1}{4}F_{\mu\nu}^a F^{a\mu\nu} - m\psi\psi \quad (3.1)$$

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<sup>1</sup>This is sample for footnote this is sample for footnote this is sample for footnote this is sample for footnote this is sample for footnote.

**Table 1.** Tables which are too long to fit, should be written using the “table\*” environment as shown here.

| Projectile | Element 1 |                 |                 | Element 2 <sup>1</sup> |                 |                 |
|------------|-----------|-----------------|-----------------|------------------------|-----------------|-----------------|
|            | Energy    | $\sigma_{calc}$ | $\sigma_{expt}$ | Energy                 | $\sigma_{calc}$ | $\sigma_{expt}$ |
| Element 3  | 990 A     | 1168            | $1547 \pm 12$   | 780 A                  | 1166            | $1239 \pm 100$  |
| Element 4  | 500 A     | 961             | $922 \pm 10$    | 900 A                  | 1268            | $1092 \pm 40$   |

Note: This is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote

<sup>1</sup>This is an example of table footnote

where,

$$\begin{aligned}
 D_\mu &= \partial_\mu - ig \frac{\lambda^a}{2} A_\mu^a \\
 F_{\mu\nu}^a &= \partial_\mu A_\nu^a - \partial_\nu A_\mu^a + g f^{abc} A_\mu^b A_\nu^c
 \end{aligned}
 \tag{3.2}$$

Notice the use of `\nonumber` in the align environment at the end of each line, except the last, so as not to produce equation numbers on lines where no equation numbers are required. The `\label{}` command should only be used at the last line of an align environment where `\nonumber` is not used.

$$Y_\infty = \left( \frac{m}{\text{GeV}} \right)^{-3} \left[ 1 + \frac{3 \ln(m/\text{GeV})}{15} + \frac{\ln(c_2/5)}{15} \right]
 \tag{3.3}$$

The class file also supports the use of `\mathbb{R}`, `\mathscr{R}` and `\mathcal{R}` commands. As such `\mathbb{R}`, `\mathscr{R}` and `\mathcal{R}` produces  $\mathbb{R}$ ,  $\mathscr{R}$  and  $\mathcal{R}$  respectively.

## 4. Figures

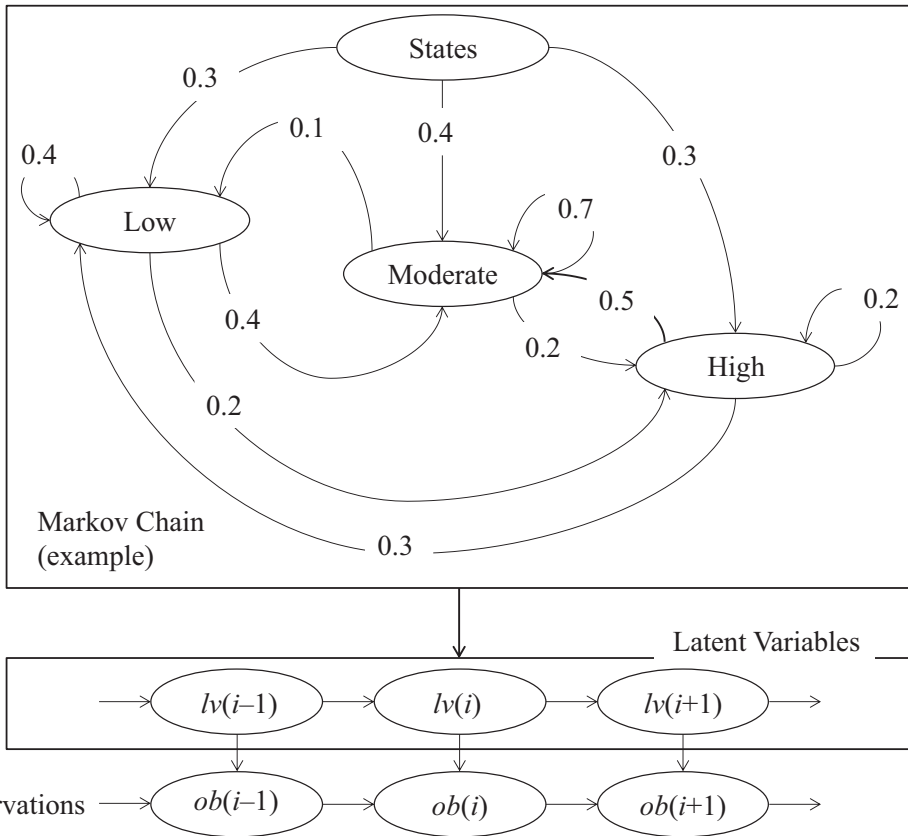
As per the L<sup>A</sup>T<sub>E</sub>X standards eps images in latex and pdf/jpg/png images in pdflatex should be used. This is one of the major differences between latex and pdflatex. The images should be single page documents. The command for inserting images for latex and pdflatex can be generalized. The package that should be used is the graphicx package.

## 5. Tables

Tables can be inserted via the normal table and tabular environment. To put footnotes inside tables one has to use the additional “fntable” environment enclosing the tabular environment. The footnote appears just below the table itself.

## 6. Cross referencing

Environments such as figure, table, equation, align can have a label declared via the `\label{#label}` command. For figures and table environments one should use the `\label{}` command inside or just below the `\caption{}` command. One can then use the `\ref{#label}` command to cross-reference them. As an example, consider the label declared for Figure 1 which is `\label{fig1}`. To cross-reference it, use the command `Figure \ref{fig1}`, for which it comes up as “Figure 1”. The reference citations should be used as per the “natbib” packages. Some sample citations: [1, 2, 3, 4, 5].



**Figure 1.** This is a widefig. This is an example of long caption this is an example of long caption this is an example of long caption this is an example of long caption.

**7. Lists**

List in  $\LaTeX$  can be of three types: enumerate, itemize and description. In each environments, new entry is added via the `\item` command. Enumerate creates numbered lists, itemize creates bulleted lists and description creates description lists.

1. First item in the number list.
2. Second item in the number list.
3. Third item in the number list.

List in  $\LaTeX$  can be of three types: enumerate, itemize and description. In each environments, new entry is added via the `\item` command.

- First item in the bullet list.
- Second item in the bullet list.
- Third item in the bullet list.

**A. Appendix. Title for Appendix Section**

Appendix text here.

## B. Conclusion

Some Conclusions here.

**Acknowledgments.** We are grateful for the technical assistance of A. Author.

**Funding Statement.** This research was supported by grants from the <funder-name><doi><award ID>; <funder-name><doi><award ID>.

**Competing Interests.** A statement about any financial, professional, contractual or personal relationships or situations that could be perceived to impact the presentation of the work — or ‘None’ if none exist

**Data Availability Statement.** A statement about how to access data, code and other materials allowing users to understand, verify and replicate findings — e.g. Replication data and code can be found in Harvard Dataverse: [url{https://doi.org/link}](https://doi.org/link).

**Ethical Standards.** The research meets all ethical guidelines, including adherence to the legal requirements of the study country.

**Author Contributions.** Please provide an author contributions statement using the CRediT taxonomy roles as a guide [url{https://www.casrai.org/credit.html}](https://www.casrai.org/credit.html). Conceptualization: A.A; A.B. Methodology: A.A; A.B. Data curation: A.C. Data visualisation: A.C. Writing original draft: A.A; A.B. All authors approved the final submitted draft.

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