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## Navigating common challenges in manuscript submission: Insights for authors and publishers using Elsword and CAS packages

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### Abstract

The `elsarticle.cls`, `cas-sc.cls`, and `cas-dc.cls` classes are the preferred L<sup>A</sup>T<sub>E</sub>X class files recommended by Elsevier, a publishing company specializing in scientific, technical, and medical (STM) content for manuscript submissions to their journals. These class files are available on CTAN along with templates, BibT<sub>E</sub>X style files, and user documentations. In this article, we will mainly explore the purpose, features and benefits of these class files and how to utilize these packages effectively for their intended purposes. We also list the challenges resulting from not using these recommended templates.

### 1 Introduction

As dedicated typesetters with over two and a half decades of experience in using T<sub>E</sub>X and related tools for scientific, technical, and medical (STM) journal and book typesetting, and having collaborated with nearly 20 publishers worldwide, we would like to offer some suggestions to authors. These tips can help streamline the publication process and ensure that articles are published quickly, provided they meet all other editorial standards.

Using Elsevier, one of the largest STM publishers, as an example, this advice is applicable to all authors preparing manuscripts for any publisher.

Elsevier, an academic publisher, releases approximately 3,000 journals across various disciplines. These journals follow specific typesetting models characterized by defined margins, text areas, fonts, and column formats (single and double columns). Authors preparing their manuscripts in L<sup>A</sup>T<sub>E</sub>X for most of these journals are required to use `elsarticle.cls`, `cas-sc.cls`, or `cas-dc.cls`, and format their work according to the guidelines provided on the “Guide for Authors” page. [3, 4]

Given that manuscript publishing is an integral part of research, authors should pay close attention to adhering to publishing guidelines. Compared to the complex nature of their research and the tasks they have already completed with great care and efficiency, manuscript preparation requires only a bit of skill and time, as the data is already available and only formatting remains. The saying “Well begun is half done” certainly applies to manuscript prepara-

tion. If a manuscript is meticulously prepared according to the publishing guidelines and submitted for publication, the remaining process will be much smoother. This careful preparation minimizes the need for additional communications with the publisher, ensuring a hassle-free journey for the authors until their manuscript is published.

### 2 The purpose

Beyond merely formatting L<sup>A</sup>T<sub>E</sub>X submissions to a specific style, authors should understand that these class files are designed with several other beneficial purposes to meet the requirements. These additional features ultimately contribute to a faster and smoother publishing process. Before a manuscript is published, it undergoes numerous stages involving human intervention, as well as automatic and semi-automatic processing. Proper use of these class files and following other rules mentioned in the publishing guidelines ensures that each stage is handled efficiently, reducing potential delays and complications. Now let us see the main intended purposes:

1. Maintaining a uniform format for review purposes, especially with wide margins, increased interline spacing, and maintaining the page count if there is any restriction to the number of pages.
2. Assisting authors in formatting equations, tables, textboxes, and other elements to fit within the column and text width of the final published article, to require minimal intervention during the subsequent stages of the publishing process. This careful formatting reduces the risk of errors being introduced in the subsequent stages and streamlines the overall journey of the manuscript through the publishing pipeline.
3. Ensuring that authors include all mandatory information is crucial to avoid rejections. The templates provided with the class files contain most of the required fields, reminding authors to supply the necessary details. If any mandatory information is missing, the publisher will query the authors, causing delays as the information must be submitted later. By providing all mandatory details initially, authors can review the proofs to ensure everything is correctly set and no errors are introduced, again streamlining the publishing process.
4. The templates are meticulously designed for multiple purposes, which we have been discussing here. One of the most important purposes is to automate the typesetting process during publication. When manuscripts are prepared according to these templates, they can be converted into

the required deliverables, such as PDFs, using automated tools. This minimizes manual intervention, significantly reducing the publishing timeline.

- Manuscripts are published not only as PDFs but also in formats like XML, and MathML; unfortunately, many of the authors are unaware of this fact. When proper templates are used, these conversion processes are largely automated. Otherwise, typesetters must reformat your article to fit these templates, adding time to the publishing timeline. Additionally, proofing tools flag most changes in the manuscript. Authors are then required to review and confirm these changes, increasing their workload and making the proofreading process more challenging.

### 3 Features

In this section we will discuss the prominent features of these class files. First we will review the features of `elsarticle.cls`. [1, 5, 6, 8]

- Many features are implemented as class file options: `preprint`, `nopreprintline`, `review`, `twocolumn`, `times`, `sort&compress`, etc. Thus, documents should start with:
 

```
\documentclass[options]{elsarticle}
```
- Using the `nopreprintline` option, frontmatter which runs on multiple pages can be typeset easily without breaking it manually.
- The position of the whole front matter can be changed to left-justified, from the default alignment of center, using the `lefttitle` option. This is purely for presentation purpose and is not needed for Elsevier submission.
- Options to omit loading `natbib`. If any of your packages conflict with the `natbib` package, and you need to use `biblatex` instead, you can do that using the option `nonatbib` as a class option, and then load `biblatex`.
- Double-blind and single-blind options for peer-reviewing.
- Structured front matter coding. Authors themselves should code the organisation, city, post-code, state in the respective fields in the template and they are in the best position to identify and format their affiliation correctly. The following is a specimen coding as per `elsarticle.cls`:

```
\begin{frontmatter}
\title{This is a specimen $a_b$
title\tnoteref{t1,t2}}
\tnotetext[t1]{This document is
the results of the research
project funded by the National
Science Foundation.}
\tnotetext[t2]{The second title
footnote which is a longer
text matter to fill through
text width and overflow into
another line in the footnotes
area of the first page.}

\author[1]{J.K. Krish\corref{cor1}%
\fnref{fn1}}
\ead{jkk@example.in}
\cortext[cor1]{Corresponding author}

\author[1,2]{Han Jane\corref{cor2}}
\ead{han@different.edu}
\cortext[cor2]{Corresponding author}

\author[2]{T. Rafeeq\fnref{fn1,fn2}}
\ead[url]{www.nowhere.com}
\fnref{fn1}{This is the first
author footnote.}
\fnref{fn2}{Yet another author
footnote.}

\affiliation[1]{%
organization={Department of
Physics, J.K. Institute
of Science},
addressline={Jawahar Nagar},
city={Trivandrum},
% citysep={}, % Uncomment if no
% comma needed between city and
%
% postcode
postcode={695013},
state={Kerala},
country={India}}

\affiliation[2]{%
organization={World Scientific
University},
addressline={Street 29},
postcode={1011 NX},
postcodesep={},
city={Amsterdam},
country={The Netherlands}}
...
\end{frontmatter}
```

Here is another example, showing frontmatter coding features in the classes `cas-sc.cls` and `cas-dc.cls`. This does not cover all the features, but shows how it is designed. [2, 7]

```
\begin{frontmatter}
\title[mode = title]{Leveraging
  social media news}

\tnotemark[1,2]

\tnotetext[1]{This document is
  funded by the ABC Organisation}

\tnotetext[2]{The second title
  footnote which is a longer text}

\author[1,3]{V. {\=A}nand
  Rawat}%
  [type=editor,
  auid=000,bioid=1,
  prefix=Sir,
  orcid=0000-0001-7500-0000]
\cormark[1]
\fnmark[1]
\ead{a.rawat@txgabcd.org.in}
\ead[url]{www.txgabcd.in}

\credit{Conceptualization of this
  study, Methodology, Software}

\affiliation[1]{%
  organisation={IMI},
  city={Trivandrum},
  postcode={695014},
  country={India}}

\author[2,4]{Han Xi}%
  [style=chinese]

\author[2,3]{Gautham T.}%
  [role=Co-ordinator,
  suffix=Jr]
\fnmark[2]
\ead{gautham.t@organisation.org}

\credit{Data curation, Writing}

\affiliation[2]{%
  organisation={ABC Foundation},
  addressline={Jagathy},
  city={Trivandrum},
  postcode={695014},
  country={India}}
```

```
\author[1,3]{Jane Doe}
\cormark[2]
\fnmark[1,3]
\ead{jane@janedoe.org}
\ead[URL]{www.janedoe.org}

\affiliation[3]{%
  organisation={The Jane Doe
  Group},
  postcode={MA 12345},
  country={USA}}

\cortext[cor1]{Corresponding
  author}
\cortext[cor2]{Principal
  corresponding author}
\fnmark[fn1]{This is the first
  author footnote, and is common
  to third author as well.}

\nonumnote{This note has no
  numbers.}
...
\maketitle
\end{frontmatter}
```

7. Options to insert a page break easily after the title, author/affiliation or abstract. Some journals require, for submission, that authors format the title, or title, author, and affiliation details or the whole frontmatter on separate pages. A page break can be introduced within the frontmatter using the `\newpageafter{title}` command, or the `\newpageafter{author}` command, or lastly the `\newpageafter{abstract}` command. Without these commands, it is difficult to introduce breaks in this area.
8. Environments are defined to code graphical abstract, highlights, etc., properly.
9. Options like `1p`, `3p`, `5p`, `twocolumn`, etc. as per the journal they choose. Even if the author guideline says to submit the manuscript in single column, whereas the final output when the article publishes in the journal is double column, we have advice for authors: first format the manuscript in the final output style (e.g., `5p` which is double column) and format the equations by breaking and aligning the lengthy equations properly. Then submit with `1p` or `3p` option as requested. This will ensure fewer changes during the pre-publishing process.
10. Many `bst` files adhering to both numbered and author-year citation styles are available.

11. In addition to the main title, options are available to code the alternate title, sub-title, translated title and translated sub-alttitle. ORCID links, social media links like X (Twitter), Facebook, LinkedIn, etc., can be given in the optional argument of author command.
12. And many more...

#### 4 The beneficiaries

The primary beneficiaries will be the authors themselves if they follow the template as per the instructions laid out in the guide for authors document.

1. **Authors:** It helps in adhering to the submission guidelines of journals, which may reduce the risk of rejection due to formatting issues. It can potentially speed up the publication process since less time may be needed for formatting revisions during the review stage.
2. **Reviewers:** Consistent formatting across submissions can help reviewers focus on the content rather than getting distracted by varying styles and layouts. Good typesetting ensures that the text is legible, which is particularly important for reviewers who may spend long hours reading multiple manuscripts.
3. **Publishers:** Publishers can expedite the publication process when manuscripts are already formatted correctly, reducing the time to market. Publishers can make revisions and update files as needed without extensive reformatting, maintaining the integrity of the document
4. **Typesetters:** Using templates reduces the likelihood of errors in formatting, which can save typesetters time in proofreading and corrections. Templates streamline the typesetting process, allowing typesetters to work more efficiently and handle more projects in less time.

#### 5 The challenges

1. The main challenge is authors overlooking the **Guide for Authors**, where the details of the templates with proper instructions are given.
2. For example, authors may merely load the class file, but the rest of the coding will not be according to the template.
3. Not using BIB $\TeX$  databases.

#### 6 How to overcome the challenge?

This is a significant question. Based on our experience as typesetters, we suggest the following:

1. Publishers should educate authors by communicating best practices in publishing. Provide numerous use cases and highlight the advantages, including faster publication, of using proper templates. Emphasize the disadvantages of non-compliance with author guidelines. This is a big task!
2. Develop and maintain an effective automatic content profiler that validates author submissions and reports shortcomings back to the authors.
3. Ensure user-friendly documentation is created and made easily accessible.
4. Establish a robust support system with a knowledgeable typesetting team to assist authors and provide timely help.
5. Publishers should actively participate in  $\TeX$  conferences and interact with experts to understand the power of  $\TeX$ . This will help them modulate policies and communicate effectively with the  $\TeX$  author community.
6. Organize free webinars or seminars on best practices for manuscript preparation at universities, especially those with a high number of contributing authors.

#### References

- [1] [ctan.org/pkg/elsarticle](https://ctan.org/pkg/elsarticle)
- [2] [ctan.org/pkg/els-cas-templates](https://ctan.org/pkg/els-cas-templates)
- [3] [elsevier.com/en-in/subject/next/guide-for-authors](https://elsevier.com/en-in/subject/next/guide-for-authors)
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- [5] [support.stmdocs.in/index.php/Elsarticle.cls](https://support.stmdocs.in/index.php/Elsarticle.cls)
- [6] [support.stmdocs.in/index.php/FAQ\\_-\\_elsarticle.cls](https://support.stmdocs.in/index.php/FAQ_-_elsarticle.cls)
- [7] [support.stmdocs.in/index.php/Elsarticle\\_-\\_CAS](https://support.stmdocs.in/index.php/Elsarticle_-_CAS)
- [8] [support.stmdocs.in/index.php/Model-wise\\_bibliographic\\_style\\_files](https://support.stmdocs.in/index.php/Model-wise_bibliographic_style_files)

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 cvr (at) stmsoft dot in  
<https://stmsoft.org>