Making new \TeX{} Live releases available on Overleaf

Eric Mc Sween
TUG 2020
1 Introduction

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![The Universe](image)

Figure 1: The Universe

2 Conclusion

"I always thought something was fundamentally wrong with the universe." [1]

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Example project

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July 2020

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References

Icons from OSA Icon Library
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- Configuration
- Fonts
- R
- TeX Live
- Ubuntu
1. Build the image well
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2. Test
Monthly Notices of the Royal Astronomical Society (MNRAS) LaTeX template and guide for authors

Author
Oxford University Press

License
Other (as stated in the work)

Abstract
This is a template and guide for preparing papers for Monthly Notices of the Royal Astronomical Society using the 'mnras' LaTeX package.

See the mnras_template.tex file (included and used by default when opening the template) for a simple template to help you get started.

The mnras_guide.tex file (also included) provides instructions for using the additional features in the document class. This is not a general guide on how to use

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**MN**RAS JfX Z template – title goes here

Keith T. Smith, a1, a2, A. N. Other, a2, Third Author, a2, and Fourth Author, a2

1Department of Astronomy, University of Oxford, Oxford, UK
2Institute of Physics, London, UK
3 Institut d'Estudis Espacials de Catalunya

Accepted 20X, Revised 2Y, accepted 3Z

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**ABSTRACT**

This is a simple template for authors to write new MNRAS papers. The abstract should briefly describe the aims, methods, and main results of the paper. It should be a single paragraph not more than 250 words (300 words for Letters). No references should appear in the abstract.

Key words: keyword1 – keyword2 – keyword3

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1 INTRODUCTION

This is a template for authors to write new MNRAS papers. See the sample file for a more complex example, and learn how to use the full template.

All papers should start with an introduction section, which sets the context, outlines the author's methodology, and the field of study. To provide a simple example (De Lazzari 1994; De la Garza 1994).

---

2 METHODS, OBSERVATIONS, SIMULATIONS ETC.

Normally the first sections describe the techniques that the authors used. Next, the second sections discuss the methods employed.

---

2.1 Maths

Simple mathematics can be inserted into the text (e.g. \( a = \frac{b}{c} \)). More complicated expressions should be entered as numbered equations:

\[ E = mc^2 \]

---

2.2 Figures and tables

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**Figure 1:** This is an example figure. Captions appear below each figure. Give enough detail for the reader to understand what they are looking at.

---

**Table 1:** This is an example table. Captions appear above each table. Make sure to define the quantities, symbols, and units.

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**Note:** This is a draft document. It is not final. It is meant to provide an example of how to use the MNRAS template and guide.
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3. Release!
New projects are compiled with the new TeX Live version.

Existing projects are still compiled with the same version as before the release.
What’s New in TeX Live 2019?

The official release notes for TeX Live 2019 are available from TUG. The LuaTeX engine now uses Lua 5.3 (read more on key changes in Lua 5.3), and for advanced users, you can now use the HarfBuzz text shaping engine with \Luatex via the lualatex-dev binary. For those interested in TeX's internals, many TeX engines in TeX Live 2019 now incorporate the \expanded primitive. You can also read more about TeX Live, and Overleaf's TeX Live upgrade process.

Key Changes in TeX Live 2019

KOMA-Script classes and titlesec incompatibility

The KOMA-Script classes, i.e., scrbook, scrrartcl, scrrprept, will now throw errors if the titlesec package is loaded. Instead, use the commands provided by the KOMA-Script classes {\setkomafont, \addtokomafont, \usekomafont} to customise sectional headings: see the "Text Markup" section in the KOMA-Script package documentation for further details.

chemfig package updates

The chemfig package has overhauled its styling options interface quite a bit! For example, when you had written \chetogether{15pt}, you simply wrote \chetogether{15pt} now.
4. Maintenance
No update to anything except to fix bugs.

\begin{itemize}
\item TeX packages
\item Ubuntu packages
\item R packages
\end{itemize}

are all frozen.
Every (northern) summer, between the actual TeX Live release and the fall semester.
Future work

- Other benchmarks
- \TeX\ Live pretests
- Compilation speed