

---

## Abstract

This template helps you to create a properly formatted L<sup>A</sup>T<sub>E</sub>X manuscript.

*Keywords:* `elsarticle.cls`, L<sup>A</sup>T<sub>E</sub>X, Elsevier, template

*2010 MSC:* 00-01, 99-00

---

## 1. Introduction

*Installation.* If the document class *elsarticle* is not available on your computer, you can download and install the system package *texlive-publishers* (Linux) or install the L<sup>A</sup>T<sub>E</sub>X package *elsarticle* using the package manager of your T<sub>E</sub>X  
5 installation, which is typically T<sub>E</sub>X Live or MikT<sub>E</sub>X.

*Usage.* Once the package is properly installed, you can use the document class *elsarticle* to create a manuscript. Please make sure that your manuscript follows the guidelines in the Guide for Authors of the relevant journal. It is not necessary to typeset your manuscript in exactly the same way as an article, unless  
10 you are submitting to a camera-ready copy (CRC) journal.

*Functionality.* The Elsevier article class is based on the standard article class and supports almost all of the functionality of that class. In addition, it features commands and options to format the

---

\*Corresponding author

Email address: `xushigang2310@163.com` (Shigang Xu, Qianzong Bao, Zhiming Ren)

## 2. Method

15 *Installation.* If the document class *elsarticle* is not available on your computer, you can download and install the system package *texlive-publishers* (Linux) or install the L<sup>A</sup>T<sub>E</sub>X package *elsarticle* using the package manager of your T<sub>E</sub>X installation, which is typically T<sub>E</sub>X Live or MikT<sub>E</sub>X.

*Usage.* Once the package is properly installed, you can use the document class  
20 *elsarticle* to create a manuscript. Please make sure that your manuscript follows the guidelines in the Guide for Authors of the relevant journal. It is not necessary to typeset your manuscript in exactly the same way as an article, unless you are submitting to a camera-ready copy (CRC) journal.

*Functionality.* The Elsevier article class is based on the standard article class  
25 and supports almost all of the functionality of that class. In addition, it features commands and options to format the

## 3. The Elsevier article class

*Installation.* If the document class *elsarticle* is not available on your computer, you can download and install the system package *texlive-publishers* (Linux) or  
30 install the L<sup>A</sup>T<sub>E</sub>X package *elsarticle* using the package manager of your T<sub>E</sub>X installation, which is typically T<sub>E</sub>X Live or MikT<sub>E</sub>X.

*Usage.* Once the package is properly installed, you can use the document class *elsarticle* to create a manuscript. Please make sure that your manuscript follows the guidelines in the Guide for Authors of the relevant journal. It is not neces-  
35 sary to typeset your manuscript in exactly the same way as an article, unless you are submitting to a camera-ready copy (CRC) journal.

*Functionality.* The Elsevier article class is based on the standard article class and supports almost all of the functionality of that class. In addition, it features commands and options to format the

- 40     • document style
- baselineskip
- front matter
- keywords and MSC codes
- theorems, definitions and proofs
- 45     • lables of enumerations
- citation style and labeling.

#### 4. Front matter

The author names and affiliations could be formatted in two ways:

- (1) Group the authors per affiliation.
- 50 (2) Use footnotes to indicate the affiliations.

See the front matter of this document for examples. You are recommended to conform your choice to the journal you are submitting to.

#### 5. Bibliography styles

There are various bibliography styles available. You can select the style of  
 55 your choice in the preamble of this document. These styles are Elsevier styles based on standard styles like Harvard and Vancouver. Please use BibTeX to generate your bibliography and include DOIs whenever available.

Here are two sample references: [1, 2].

#### References

- 60 [1] R. Feynman, F. Vernon Jr., The theory of a general quantum system interacting with a linear dissipative system, *Annals of Physics* 24 (1963) 118–173. doi:10.1016/0003-4916(63)90068-X.

- [2] P. Dirac, The lorentz transformation and absolute time, *Physica* 19 (1-12) (1953) 888–896. doi:10.1016/S0031-8914(53)80099-6.