

# How to use the class file for Proceedings of the Japan Academy, Series B

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**Abstract:** PJA (the Proceedings of the Japan Academy), Series B provides a  $\text{\LaTeX} 2_{\epsilon}$  class file, named `pjab.cls`, for manuscript. This document describes how to use the class file.

**Keywords:** Class file,  $\text{\LaTeX} 2_{\epsilon}$

## 1. Introduction

This document is written toward authors who have already read “PJA Series B Instructions to Authors” (`pja_b_inst.pdf`).

Section 2.1 explains how to typeset according to the template. Section 3 describes some notes about `pjab.cls`.

## 2. How to typeset manuscript

**2.1. Template.** `template.tex` file distributed with `pjab.cls` is can be used.

```
\documentclass[pjabdraft]{pjab}% <- for one column
%\documentclass{pjab}%           <- for two column
\usepackage[T1]{fontenc}
\usepackage{lmodern}
\usepackage{textcomp}
\usepackage{amsmath}
\usepackage[dvipdfmx]{graphicx}
%\usepackage[dvips]{graphicx}
```

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Abbreviations: xx: xxx xxx; yy: yyy yyyy.

```
1 \usepackage{xcolor}
2 \usepackage{array}
3 \usepackage[superscript]{cite}
4
5 \begin{document}
6 %\Vol{98}
7 %\No{1}
8 %\pjabcategory{Review}
9 %\pjabcategory{Original Article}
10 \title[title for header]
11     {title}
12 %\subtitle{subtitle}
13 \authorlist{%
14     \Cauthorentry{Sei Mei}{label1}% <- corresponding author
15     %\authorentry{Sei Mei}{Label2}
16     %\authorentry{Sei Mei}{label1,Label2}
17 }
18 %\breakauthorline{3}
19 \affiliate[label1]{ }
20 %\affiliate[label2]{ }
21 \Correspondence{ }
22 \Abbreviations{ }
23 \abstract{ }
24 \keywords{ }
25 \maketitle
26
27 \begin{thebibliography}{99}
28 \bibitem{xxx}
```

```

1 \end{thebibliography}
2
3 \profile[]{}
4 \end{document}

```

5 The `pjabdraft` option of `\documentclass` is required when you prepare a manuscript.  
6 And then, you can roughly estimate the total number of pages without `pjabdraft` op-  
7 tion. The former produces pages in a one column format with line numbers (see p.6) on  
8 the left margin, and the latter produces pages in a two column format. **For reviewer's**  
9 **convenience, please use `pjabdraft` option when you submit a manuscript.**

10 The `\Vol` and `\No` commands are prepared for a running head. For example, `\Vol` and `\No`  
11 are assigned as `\Vol{98}` and `\No{1}`. You wouldn't usually have to use these commands  
12 in submission of manuscript.

13 The `\pjabcategory` command is prepared for the categories of PJA Series B, for example,  
14 "Review", "Original article" and "Others".

15 The `\title` command is for a title of manuscript. You may use `\` to break a long title.

- 16 • The argument of the `\title` command is used for more than just producing a title, it  
17 is also used to generate a running head.
- 18 • Please write a shorter title for a running head in the case of a long title, type as follows.  
19 `\title[title for a running head]{title}`
- 20 • The `\subtitle` command can be prepared if required.

21 The outputs of authors' names and marks of affiliations are automatically generated by  
22 using the `\authorlist` and `\(C)authorentry` commands.

- 23 • The `\Cauthorentry` or `\authorentry` commands must be described as an argument of  
24 the `\authorlist` command. The `\Cauthorentry` command is used for an author that  
25 needs a correspondence, and it is corresponding to the `\Correspondence` command  
26 (see p.5) .

27 The both commands have two arguments.

```

28 \Cauthorentry{name}{label}

```

For example, they could be typeset as follows.

```
\authorlist{%
  \Cauthorentry{Author First}{PJA}
  \authorentry{Author Second}{PJAB}
}
```

- The first argument of `\(C)authorentry` is filled with an author's name. A second name is automatically converted to small caps font by `\textsc` command while compiling.

If your name has special letters with accents, for example `ä` (`\b{a}`), `à` (`\d{a}`) and `âz` (`\t{az}`), type as follows.

```
\noexpand\b{c}
```

- The second argument is assigned to a label of author's affiliation, corresponding to the label of the `\affiliate` command (see p.5). For example, an abbreviation for a department can be given.

No extra spaces should be added between a letter and a brace. `{PJA}` and `{PJA_}` are regarded as different.

- Author's name is also used to generate the even page header after simply getting the first letter of first name.
- If there are four or more authors, authors other than the first author are omitted, for example, "N. GAKUSHIIN *et al.*".
- In the case of having a middle name, you may typeset as follows.

```
\authorentry[F.M.]{First~Middle Second}{PJA}
```

"F.M. SECOND" is generated on the even page header. And keep in mind that you need to connect your first and middle names by tie "~".

The `\breakauthorline` command is provided, if you would like to break a line of many author's lists at any points.

```
\breakauthorline{num,num,num,...}
```

*num* must be a positive integer. If "3" is specified, the line-break will be occurred after

the third author. If “3,6” is specified, line-breaks will be occurred after the third and sixth authors.

Author’s affiliation is described in the `\affiliate` command as follows.

`\affiliate[label]{affiliation}`

- The entry of `\affiliate` must be put in the same order as labels of `\(C)authoreentry` lists.
- The first argument *label* must be the same as the 2nd argument of the `\(C)authoreentry` command. No extra spaces may be added between a letter and a bracket. The second argument is filled with the author’s affiliation.
- If any labels of `\affiliate` are different from those of `\authoreentry`, there will come a warning message on your terminal.

An abstract is described by the `\abstract` command in one paragraph. It may not exceed 160 words.

Keywords are described by the `\keywords` command in up to 6 words.

Correspondence of `\Cauthoreentry` is described by the `\Correspondence` command.

Abbreviations are described by the `\Abbreviations` command.

The `\maketitle` command must come after those commands before the main text begins.

Profile is requested when the review paper is accepted for publication. “Profile” on the last page of this file is generated by using the following command.

`\profile[file]{biography}`

- The first argument is filled with some kind of picture format file that is a picture of author’s face, for example, `somepic.pdf` or `somepic.eps` etc.
- If a file of an author’s picture is provided on a current directory of your computer, the `\profile` command reads it and puts a picture on the right side. If it is not provided, vertical rectangle appears.

The second argument are filled with author’s biography.

### 3. Some notes about `pjab.cls`

**3.1. Double spacing.** When you are compiling with the `pjabdraft` option, the whole document will be double-spaced including abstract and bibliography. Keywords, footnotes, figures, tables, and Profile will still be single-spaced. `pjab.cls` is loading the package “`setspace.sty`” internally.

**3.2. Line numbers.** As previously mentioned, line numbers are appeared on the left margin when compiling with the `pjabdraft` option. These numbers are pagewise. Manuscript must be compiled more than twice. `pjab.cls` is loading the package “`lineno.sty`” internally.

**3.3. Equation numbers.** Equation numbers are  $[1]$ ,  $[2]$ ,  $[3]$ ,  $\dots$ ,  $[n]$  on the right-hand side.

#### 3.4. Table.

- The font size inside the `table` environments is set to `\footnotesize` (10pt or 8pt when without `pjabdraft` option) (see Table 1). There are no need to specify any size commands.
- There are no need to typeset vertical rules (`|`) inside a table environment.
- It is recommended to make the top line (`\hline`) thicker by repeating `\hline`.

```
\begin{table}[tb]
\caption{caption}
\label{table:1}
\begin{center}
\begin{tabular}{ccc}
\hline
\hline
```

Table 1. caption

A	B	C
D	E	F
G	H	I

```
1  A & B & C \\
2  \hline
3  D & E & F \\
4  G & H & I \\
5  \hline
6  \end{tabular}
7  \end{center}
8  \end{table}
```

[illegible]