
Formatting Instructions For NeurIPS 2020

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Affiliation

Address

email

Abstract

1 The abstract paragraph should be indented $\frac{1}{2}$ inch (3 picas) on both the
2 left- and right-hand margins. Use 10 point type, with a vertical spacing
3 (leading) of 11 points. The word **Abstract** must be centered, bold, and in
4 point size 12. Two line spaces precede the abstract. The abstract must be
5 limited to one paragraph.

6 1 Submission of papers to NeurIPS 2020

7 NeurIPS requires electronic submissions. The electronic submission site is

8 <https://cmt3.research.microsoft.com/NeurIPS2020/>

9 Please read the instructions below carefully and follow them faithfully.

10 1.1 Style

11 Papers to be submitted to NeurIPS 2020 must be prepared according to the instructions
12 presented here. Papers may only be up to eight pages long, including figures. Additional pages
13 *containing only a section on the broader impact, acknowledgments and/or cited references*
14 are allowed. Papers that exceed eight pages of content will not be reviewed, or in any other
15 way considered for presentation at the conference.

16 The margins in 2020 are the same as those in 2007, which allow for $\sim 15\%$ more words in the
17 paper compared to earlier years.

18 Authors are required to use the NeurIPS L^AT_EX style files obtainable at the NeurIPS website
19 as indicated below. Please make sure you use the current files and not previous versions.
20 Tweaking the style files may be grounds for rejection.

21 1.2 Retrieval of style files

22 The style files for NeurIPS and other conference information are available on the World
23 Wide Web at

24 <http://www.neurips.cc/>

25 The file `neurips_2020.pdf` contains these instructions and illustrates the various formatting
26 requirements your NeurIPS paper must satisfy.

27 The only supported style file for NeurIPS 2020 is `neurips_2020.sty`, rewritten for L^AT_EX 2_ε.
28 **Previous style files for L^AT_EX 2.09, Microsoft Word, and RTF are no longer**
29 **supported!**

30 The L^AT_EX style file contains three optional arguments: **final**, which creates a camera-ready
31 copy, **preprint**, which creates a preprint for submission to, e.g., arXiv, and **nonatbib**, which
32 will not load the **natbib** package for you in case of package clash.

33 2 General formatting instructions

34 The text must be confined within a rectangle 5.5 inches (33 picas) wide and 9 inches (54 picas)
35 long. The left margin is 1.5 inch (9 picas). Use 10 point type with a vertical spacing (leading)
36 of 11 points. Times New Roman is the preferred typeface throughout, and will be selected for
37 you by default. Paragraphs are separated by 1/2 line space (5.5 points), with no indentation.

38 The paper title should be 17 point, initial caps/lower case, bold, centered between two
39 horizontal rules. The top rule should be 4 points thick and the bottom rule should be 1 point
40 thick. Allow 1/4 inch space above and below the title to rules. All pages should start at
41 1 inch (6 picas) from the top of the page.

42 For the final version, authors' names are set in boldface, and each name is centered above
43 the corresponding address. The lead author's name is to be listed first (left-most), and the
44 co-authors' names (if different address) are set to follow. If there is only one co-author, list
45 both author and co-author side by side.

46 Please pay special attention to the instructions in Section 4 regarding figures, tables, ac-
47 knowledgments, and references.

48 3 Headings: first level

49 All headings should be lower case (except for first word and proper nouns), flush left, and
50 bold.

51 First-level headings should be in 12-point type.

52 3.1 Headings: second level

53 Second-level headings should be in 10-point type.

54 3.1.1 Headings: third level

55 Third-level headings should be in 10-point type.

56 **Paragraphs** There is also a `\paragraph` command available, which sets the heading in
57 bold, flush left, and inline with the text, with the heading followed by 1 em of space.

58 4 Citations, figures, tables, references

59 These instructions apply to everyone.

60 4.1 Citations within the text

61 The **natbib** package will be loaded for you by default. Citations may be author/year or
62 numeric, as long as you maintain internal consistency. As to the format of the references
63 themselves, any style is acceptable as long as it is used consistently.

64 The documentation for **natbib** may be found at

65 <http://mirrors.ctan.org/macros/latex/contrib/natbib/natnotes.pdf>

66 Of note is the command `\citet`, which produces citations appropriate for use in inline text.
67 For example,

68 `\citet{hasselmo}` investigated\dots

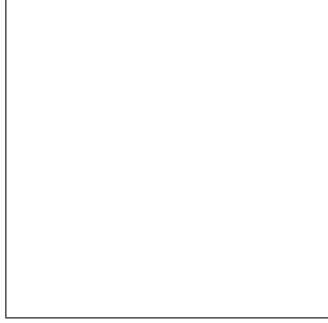


Figure 1: Sample figure caption.

69 produces

70 Hasselmo, et al. (1995) investigated...

71 If you wish to load the `natbib` package with options, you may add the following before
72 loading the `neurips_2020` package:

73 `\PassOptionsToPackage{options}{natbib}`

74 If `natbib` clashes with another package you load, you can add the optional argument
75 `nonatbib` when loading the style file:

76 `\usepackage[nonatbib]{neurips_2020}`

77 As submission is double blind, refer to your own published work in the third person. That
78 is, use “In the previous work of Jones et al. [4],” not “In our previous work [4].” If you cite
79 your other papers that are not widely available (e.g., a journal paper under review), use
80 anonymous author names in the citation, e.g., an author of the form “A. Anonymous.”

81 4.2 Footnotes

82 Footnotes should be used sparingly. If you do require a footnote, indicate footnotes with a
83 number¹ in the text. Place the footnotes at the bottom of the page on which they appear.
84 Precede the footnote with a horizontal rule of 2 inches (12 picas).

85 Note that footnotes are properly typeset *after* punctuation marks.²

86 4.3 Figures

87 All artwork must be neat, clean, and legible. Lines should be dark enough for purposes of
88 reproduction. The figure number and caption always appear after the figure. Place one line
89 space before the figure caption and one line space after the figure. The figure caption should
90 be lower case (except for first word and proper nouns); figures are numbered consecutively.

91 You may use color figures. However, it is best for the figure captions and the paper body to
92 be legible if the paper is printed in either black/white or in color.

93 4.4 Tables

94 All tables must be centered, neat, clean and legible. The table number and title always
95 appear before the table. See Table 1.

96 Place one line space before the table title, one line space after the table title, and one line
97 space after the table. The table title must be lower case (except for first word and proper
98 nouns); tables are numbered consecutively.

¹Sample of the first footnote.

²As in this example.

Table 1: Sample table title

Part		
Name	Description	Size (μm)
Dendrite	Input terminal	~ 100
Axon	Output terminal	~ 10
Soma	Cell body	up to 10^6

Note that publication-quality tables *do not contain vertical rules*. We strongly suggest the use of the `booktabs` package, which allows for typesetting high-quality, professional tables:

<https://www.ctan.org/pkg/booktabs>

This package was used to typeset Table 1.

5 Final instructions

Do not change any aspects of the formatting parameters in the style files. In particular, do not modify the width or length of the rectangle the text should fit into, and do not change font sizes (except perhaps in the **References** section; see below). Please note that pages should be numbered.

6 Preparing PDF files

Please prepare submission files with paper size “US Letter,” and not, for example, “A4.” Fonts were the main cause of problems in the past years. Your PDF file must only contain Type 1 or Embedded TrueType fonts. Here are a few instructions to achieve this.

- You should directly generate PDF files using `pdflatex`.
- You can check which fonts a PDF files uses. In Acrobat Reader, select the menu Files>Document Properties>Fonts and select Show All Fonts. You can also use the program `pdf fonts` which comes with `xpdf` and is available out-of-the-box on most Linux machines.
- The IEEE has recommendations for generating PDF files whose fonts are also acceptable for NeurIPS. Please see <http://www.emfield.org/icuwb2010/downloads/IEEE-PDF-SpecV32.pdf>
- `xfig` “patterned” shapes are implemented with bitmap fonts. Use “solid” shapes instead.
- The `\bbold` package almost always uses bitmap fonts. You should use the equivalent AMS Fonts:

```
\usepackage{amsfonts}
```

followed by, e.g., `\mathbb{R}`, `\mathbb{N}`, or `\mathbb{C}` for \mathbb{R} , \mathbb{N} or \mathbb{C} . You can also use the following workaround for reals, natural and complex:

```
\newcommand{\RR}{\mathbb{R}} %real numbers
\newcommand{\Nat}{\mathbb{N}} %natural numbers
\newcommand{\CC}{\mathbb{C}} %complex numbers
```

Note that `amsfonts` is automatically loaded by the `amssymb` package.

If your file contains type 3 fonts or non embedded TrueType fonts, we will ask you to fix it.

132 6.1 Margins in L^AT_EX

133 Most of the margin problems come from figures positioned by hand using `\special` or other
134 commands. We suggest using the command `\includegraphics` from the `graphicx` package.
135 Always specify the figure width as a multiple of the line width as in the example below:

```
136 \usepackage[pdftex]{graphicx} ...  
137 \includegraphics[width=0.8\linewidth]{myfile.pdf}
```

138 See Section 4.4 in the graphics bundle documentation ([http://mirrors.ctan.org/macros/](http://mirrors.ctan.org/macros/latex/required/graphics/grfguide.pdf)
139 [latex/required/graphics/grfguide.pdf](http://mirrors.ctan.org/macros/latex/required/graphics/grfguide.pdf))

140 A number of width problems arise when L^AT_EX cannot properly hyphenate a line. Please
141 give LaTeX hyphenation hints using the `\-` command when necessary.

142 Broader Impact

143 Authors are required to include a statement of the broader impact of their work, including
144 its ethical aspects and future societal consequences. Authors should discuss both positive
145 and negative outcomes, if any. For instance, authors should discuss a) who may benefit
146 from this research, b) who may be put at disadvantage from this research, c) what are the
147 consequences of failure of the system, and d) whether the task/method leverages biases in
148 the data. If authors believe this is not applicable to them, authors can simply state this.

149 Use unnumbered first level headings for this section, which should go at the end of the paper.
150 **Note that this section does not count towards the eight pages of content that**
151 **are allowed.**

152 References

153 References follow the acknowledgments. Use unnumbered first-level heading for the references.
154 Any choice of citation style is acceptable as long as you are consistent. It is permissible
155 to reduce the font size to `small` (9 point) when listing the references. **Note that the**
156 **Reference section does not count towards the eight pages of content that are**
157 **allowed.**

158 [1] Alexander, J.A. & Mozer, M.C. (1995) Template-based algorithms for connectionist rule extraction.
159 In G. Tesauro, D.S. Touretzky and T.K. Leen (eds.), *Advances in Neural Information Processing*
160 *Systems* 7, pp. 609–616. Cambridge, MA: MIT Press.

161 [2] Bower, J.M. & Beeman, D. (1995) *The Book of GENESIS: Exploring Realistic Neural Models*
162 *with the GEneral NEural SIMulation System*. New York: TELOS/Springer-Verlag.

163 [3] Hasselmo, M.E., Schnell, E. & Barkai, E. (1995) Dynamics of learning and recall at excita-
164 tory recurrent synapses and cholinergic modulation in rat hippocampal region CA3. *Journal of*
165 *Neuroscience* **15**(7):5249-5262.