# Formatting Instructions for GenLaw at ICML 2023

**Firstname1 Lastname1** [*][1]  **Firstname2 Lastname2** [*][1][2]  **Firstname3 Lastname3** [2]  **Firstname4 Lastname4** [3]
**Firstname5 Lastname5** [1]

## Abstract

This document provides a basic paper template (borrowed from the ICML '23 template). An abstract is optional, since submissions are themselves extended abstracts. If included, abstracts must be a single paragraph, ideally between 4–6 sentences long.

## 1. Format Requirements

We borrow these requirements from the *ICML '23* template:

- Please submit a zipfile with **all** associated files in it (click "Submit" on the top right, then scroll to and click "Submit your paper to the arXiv," then click "Download project ZIP with submission files (e.g, .bbl)"). **We will be converting the raw LaTeX files to html to host web-friendly versions on the GenLaw website.**

- Page limit: Please respect a 3-page maximum using this template. We allow unlimited pages for references and an Appendix (optional).

- Your paper should be in **10 point Times font**.

- Make sure your PDF file only uses Type-1 fonts.

- Place figure captions *under* the figure (and omit titles from inside the graphic file itself). Place table captions *over* the table.

- References must include page numbers whenever possible and be as complete as possible. Place multiple citations in chronological order.

- Do not alter the style template; in particular, do not compress the paper format by reducing the vertical spaces.

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### 1.1. Dimensions

The text of the paper should be formatted in two columns, with an overall width of 6.75 inches, height of 9.0 inches, and 0.25 inches between the columns. The left margin should be 0.75 inches and the top margin 1.0 inch (2.54 cm). The right and bottom margins will depend on whether you print on US letter or A4 paper, but all final versions must be produced for US letter size. Do not write anything on the margins.

The paper body should be set in 10 point type with a vertical spacing of 11 points. Please use Times typeface throughout the text.

### 1.2. Title

The paper title should be set in 14 point bold type and centered between two horizontal rules that are 1 point thick, with 1.0 inch between the top rule and the top edge of the page. Capitalize the first letter of content words and put the rest of the title in lower case.

### 1.3. Submitting Final Camera-Ready Copy

Camera-ready copies should have the title of the paper as running head on each page except the first one. The running title consists of a single line centered above a horizontal rule which is 1 point thick. The running head should be centered, bold and in 9 point type. The rule should be 10 points above the main text. For those using the LaTeX style file, the original title is automatically set as running head using the `fancyhdr` package which is included in the ICML 2023 style file package. In case that the original title exceeds the size restrictions, a shorter form can be supplied by using

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\icmltitlerunning{...}
```

just before `\begin{document}`.

For camera-ready papers, author information should start 0.3 inches below the bottom rule surrounding the title. The authors' names should appear in 10 point bold type, in a row, separated by white space, and centered. Author names should not be broken across lines. Unbolded superscripted numbers, starting 1, should be used to refer to affiliations.

Affiliations should be numbered in the order of appearance.

A single footnote block of text should be used to list all the affiliations. (Academic affiliations should list Department, University, City, State/Region, Country. Similarly for industrial affiliations.)

Each distinct affiliations should be listed once. If an author has multiple affiliations, multiple superscripts should be placed after the name, separated by thin spaces. If the authors would like to highlight equal contribution by multiple first authors, those authors should have an asterisk placed after their name in superscript, and the term "*Equal contribution" should be placed in the footnote block ahead of the list of affiliations. A list of corresponding authors and their emails (in the format Full Name <email@domain.com>) can follow the list of affiliations. Ideally only one or two names should be listed.

### 1.4. Abstract

An abstract is optional. If included, the paper abstract should begin in the left column, 0.4 inches below the final address. The heading 'Abstract' should be centered, bold, and in 11 point type. The abstract body should use 10 point type, with a vertical spacing of 11 points, and should be indented 0.25 inches more than normal on left-hand and right-hand margins. Insert 0.4 inches of blank space after the body. Keep your abstract brief and self-contained, limiting it to one paragraph and roughly 4–6 sentences.

### 1.5. Partitioning the Text

You should organize your paper into sections and paragraphs to help readers place a structure on the material and understand its contributions.

#### 1.5.1. SECTIONS AND SUBSECTIONS

Section headings should be numbered, flush left, and set in 11 pt bold type with the content words capitalized. Leave 0.25 inches of space before the heading and 0.15 inches after the heading.

Similarly, subsection headings should be numbered, flush left, and set in 10 pt bold type with the content words capitalized. Leave 0.2 inches of space before the heading and 0.13 inches afterward.

Finally, subsubsection headings should be numbered, flush left, and set in 10 pt small caps with the content words capitalized. Leave 0.18 inches of space before the heading and 0.1 inches after the heading.

Please use no more than three levels of headings.

#### 1.5.2. PARAGRAPHS AND FOOTNOTES

Within each section or subsection, you should further partition the paper into paragraphs. Do not indent the first line of a given paragraph, but insert a blank line between succeeding ones.

You can use footnotes[1] to provide readers with additional information about a topic without interrupting the flow of the paper. Indicate footnotes with a number in the text where the point is most relevant. Place the footnote in 9 point type at the bottom of the column in which it appears. Precede the first footnote in a column with a horizontal rule of 0.8 inches.[2]

Picture goes here

*Figure 1.* Historical locations and number of accepted papers for International Machine Learning Conferences (ICML 1993 – ICML 2008) and International Workshops on Machine Learning (ML 1988 – ML 1992). At the time this figure was produced, the number of accepted papers for ICML 2008 was unknown and instead estimated.

### 1.6. Figures

You may want to include figures in the paper to illustrate your approach and results. Such artwork should be centered, legible, and separated from the text. Lines should be dark and at least 0.5 points thick for purposes of reproduction, and text should not appear on a gray background.

Label all distinct components of each figure. If the figure takes the form of a graph, then give a name for each axis and include a legend that briefly describes each curve. Do not include a title inside the figure; instead, the caption should serve this function.

Number figures sequentially, placing the figure number and caption *after* the graphics, with at least 0.1 inches of space before the caption and 0.1 inches after it, as in Figure 1. The figure caption should be set in 9 point type and centered unless it runs two or more lines, in which case it should be flush left. You may float figures to the top or bottom of a column, and you may set wide figures across both columns (use the environment `figure*` in LaTeX). Always place two-column figures at the top or bottom of the page.

### 1.7. Algorithms

If you are using LaTeX, please use the "algorithm" and "algorithmic" environments to format pseudocode. These require the corresponding stylefiles, algorithm.sty and algo-

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[1]Footnotes should be complete sentences.

[2]Multiple footnotes can appear in each column, in the same order as they appear in the text, but spread them across columns and pages if possible.

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**Algorithm 1** Bubble Sort

   **Input:** data $x_i$, size $m$
   **repeat**
     Initialize $noChange = true$.
     **for** $i = 1$ **to** $m - 1$ **do**
       **if** $x_i > x_{i+1}$ **then**
         Swap $x_i$ and $x_{i+1}$
         $noChange = false$
       **end if**
     **end for**
   **until** $noChange$ is $true$

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*Table 1.* Classification accuracies for naive Bayes and flexible Bayes on various data sets.

| DATA SET | NAIVE | FLEXIBLE | BETTER? |
|---|---|---|---|
| BREAST | 95.9± 0.2 | 96.7± 0.2 | √ |
| CLEVELAND | 83.3± 0.6 | 80.0± 0.6 | × |
| GLASS2 | 61.9± 1.4 | 83.8± 0.7 | √ |
| CREDIT | 74.8± 0.5 | 78.3± 0.6 | |
| HORSE | 73.3± 0.9 | 69.7± 1.0 | × |
| META | 67.1± 0.6 | 76.5± 0.5 | √ |
| PIMA | 75.1± 0.6 | 73.9± 0.5 | |
| VEHICLE | 44.9± 0.6 | 61.5± 0.4 | √ |

rithmic.sty, which are supplied with this package. Algorithm 1 shows an example.

### 1.8. Tables

You may also want to include tables that summarize material. Like figures, these should be centered, legible, and numbered consecutively. However, place the title *above* the table with at least 0.1 inches of space before the title and the same after it, as in Table 1. The table title should be set in 9 point type and centered unless it runs two or more lines, in which case it should be flush left.

Tables contain textual material, whereas figures contain graphical material. Specify the contents of each row and column in the table's topmost row. Again, you may float tables to a column's top or bottom, and set wide tables across both columns. Place two-column tables at the top or bottom of the page.

### 1.9. Theorems and such

The preferred way is to number definitions, propositions, lemmas, etc. consecutively, within sections, as shown below.

**Definition 1.1.** A function $f : X \to Y$ is injective if for any $x, y \in X$ different, $f(x) \neq f(y)$.

Using Definition 1.1 we immediate get the following result:

**Proposition 1.2.** *If $f$ is injective mapping a set $X$ to another set $Y$, the cardinality of $Y$ is at least as large as that of $X$*

*Proof.* Left as an exercise to the reader. □

Lemma 1.3 stated next will prove to be useful.

**Lemma 1.3.** *For any $f : X \to Y$ and $g : Y \to Z$ injective functions, $f \circ g$ is injective.*

**Theorem 1.4.** *If $f : X \to Y$ is bijective, the cardinality of $X$ and $Y$ are the same.*

An easy corollary of Theorem 1.4 is the following:

**Corollary 1.5.** *If $f : X \to Y$ is bijective, the cardinality of $X$ is at least as large as that of $Y$.*

**Assumption 1.6.** The set $X$ is finite.

*Remark* 1.7. According to some, it is only the finite case (cf. Assumption 1.6) that is interesting.

### 1.10. Citations and References

Please use APA reference format regardless of your formatter or word processor. If you rely on the LaTeX bibliographic facility, use `natbib.sty` and `icml2023.bst` included in the style-file package to obtain this format.

Citations within the text should include the authors' last names and year. If the authors' names are included in the sentence, place only the year in parentheses, for example when referencing Arthur Samuel's pioneering work (**?**). Otherwise place the entire reference in parentheses with the authors and year separated by a comma (**?**). List multiple references separated by semicolons (**???**). Use the 'et al.' construct only for citations with three or more authors or after listing all authors to a publication in an earlier reference (**?**).

Use an unnumbered first-level section heading for the references, and use a hanging indent style, with the first line of the reference flush against the left margin and subsequent lines indented by 10 points. The references at the end of this document give examples for journal articles (**?**), conference publications (**?**), book chapters (**?**), books (**?**), edited volumes (**?**), technical reports (**?**), and dissertations (**?**).

Alphabetize references by the surnames of the first authors, with single author entries preceding multiple author entries. Order references for the same authors by year of publication, with the earliest first. Make sure that each reference includes all relevant information (e.g., page numbers).

Please put some effort into making references complete, presentable, and consistent, e.g. use the actual current name of authors. If using bibtex, please protect capital letters of names and abbreviations in titles, for example, use {B}ayesian or {L}ipschitz in your .bib file.

## Accessibility

Authors are kindly asked to make their papers as accessible as possible for everyone including people with disabilities and sensory or neurological differences. Tips of how to achieve this and what to pay attention to will be provided on the conference website `http://icml.cc/`.

## Software and Data

We strongly encourage the publication of software and data with the camera-ready version of the paper whenever appropriate. This can be done by including a URL in the camera-ready copy.

## Acknowledgements

## A. You *can* have an appendix here.

You can have as much text here as you want. The main body must be at most 8 pages long. For the final version, one more page can be added. If you want, you can use an appendix like this one, even using the one-column format.