
Submission and Formatting Instructions for the Second Indian Workshop on Machine Learning (*iWML* 2016)

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Abstract

iWML 2016 shall have a single review cycle with no rebuttal period with submissions due on May 8, 2016. Reviewing shall be single blind and author identities shall be made known to the reviewers. Submissions must be in PDF, with a 4 page length limit (including references and all appendices).

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

1. Electronic Submission

Please visit the workshop website for instructions on submission and review.

<http://www2.cse.iitk.ac.in/~iwml/>

1.1. Templates for Submissions

Electronic templates for producing papers for submission are available in L^AT_EX and Microsoft Word on the workshop website.

This L^AT_EX style file was created by modifying the style file originally made available for the 30th International Conference on Machine Learning (ICML 2013). The MS Word style file was created by modifying the style file made available for ICML 2012.

Send questions about these electronic templates to

iwml.iitk.2016@gmail.com.

The formatting instructions below will be enforced for initial submissions and camera-ready copies.

- The maximum paper length is 4 pages including references, figures and appendices.

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Please see below for details on each of these items. A sample file (in PDF) with author names is included in the *iWML* 2016 style file package.

1.2. Submitting Papers

Submission to *iWML* 2016 will be entirely electronic. Information about the submission process is available on the workshop website at

<http://www2.cse.iitk.ac.in/~iwml/>

Submission Deadline: The deadline for submission to *iWML* 2016 is at 23:59 Indian Standard Time on May 8, 2016. If your submission does not reach us by this time, it will not be considered for the workshop.

Dual Submission: Since *iWML* is not intended to have a proceedings comprising full versions of the papers, submissions of papers already published or concurrent submissions to other venues are acceptable provided that the concurrent submission or intention to submit to other venues is declared to all venues including *iWML*. Informal publications, such as technical reports or papers in workshop proceedings which do not appear in print, do not fall under these restrictions.

If your submission indeed falls in this category, please

include a note regarding the same in the paper. Please see Section 3 for details.

To ensure our ability to print submissions, authors must provide their manuscripts in **PDF** format.

Authors using **MS Word** must convert their document to PDF. Most of the latest versions of Word have the facility to do this automatically. Submissions will not be accepted in Word format or any format other than PDF. Really. We're not joking. Don't send Word.

Those who use **L^AT_EX** to format their submissions need to pay close attention to the typefaces used. Specifically, when producing the PDF by first converting the dvi output of **L^AT_EX** to Postscript the default behavior is to use non-scalable Type-3 PostScript bitmap fonts to represent the standard **L^AT_EX** fonts. The resulting document is difficult to read in electronic form; the type appears fuzzy. To avoid this problem, dvips must be instructed to use an alternative font map. This can be achieved with something like the following commands:

```
dvips -Ppdf -tletter -G0 -o paper.ps paper.dvi
ps2pdf paper.ps
```

Note that it is a zero following the “-G”. This tells dvips to use the config.pdf file (and this file refers to a better font mapping).

Another alternative is to use the **pdflatex** program instead of straight **L^AT_EX**. This program avoids the Type-3 font problem, however you must ensure that all of the fonts are embedded (use **pdffonts**). If they are not, you need to configure **pdflatex** to use a font map file that specifies that the fonts be embedded. Also you should ensure that images are not downsampled or otherwise compressed in a lossy way.

Note that the style files use the **hyperref** package to make clickable links in documents. If this causes problems for you, add **nohyperref** as one of the options to the **iwml2016** usepackage statement.

Submissions 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 **L^AT_EX** style file, the original title is automatically set as running head using the **fancyhdr** package which is included in the *iWML* 2016 style file package. In case that the original title exceeds the size restrictions, a shorter form can be supplied by using

```
\iwmltitlerunning{...}
```

just before `\begin{document}`. Authors using **Word** must edit the header of the document themselves.

1.3. Submitting Final Camera-Ready Copy

The final versions of submissions accepted for presentation at the workshop and inclusion in the workshop booklet should follow the same format and naming convention as initial submissions, except for the copyright notice at the footnote area on the first page.

The footnote, “Preliminary work. Under review by the Indian Workshop on Machine Learning (*iWML*). Do not distribute.” must be modified to “*Appearing in Proceedings of the 2nd Indian Workshop on Machine Learning*, IIT Kanpur, India, 2016. Copyright 2016 by the author(s).”

For those using the **L^AT_EX** style file, simply change `\usepackage{iwml2016}` to

```
\usepackage[accepted]{iwml2016}
```

Authors using **Word** must edit the footnote on the first page of the document themselves.

2. Format of the Paper

All submissions must follow the same format to ensure the printer can reproduce them without problems and to let readers more easily find the information that they desire.

2.1. Length and Dimensions

Submissions must not exceed four (4) pages, including all figures, tables, appendices and references. Any submission that exceeds this page limit or that diverges significantly from the format specified herein will be rejected without review.

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.

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

2.2. 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.

2.3. Author Information for Submission

Author information should start 0.3 inches below the bottom rule surrounding the title. The authors' names should appear in 10 point bold type, electronic mail addresses in 10 point small capitals, and physical addresses in ordinary 10 point type. Each author's name should be flush left, whereas the email address should be flush right on the same line. The author's physical address should appear flush left on the ensuing line, on a single line if possible. If successive authors have the same affiliation, then give their physical address only once.

2.4. Abstract

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. The abstract should not contain more than 2000 characters, including spaces.

2.5. 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.

2.5.1. 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.

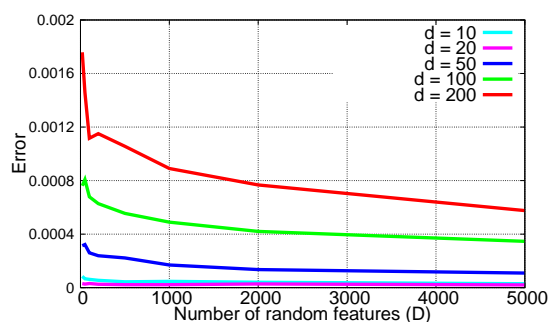


Figure 1. Error rates achieved by random feature maps on the homogeneous polynomial kernel of order 10.

2.5.2. 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 footnotes¹ 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

2.6. Figures

You may want to include figures in the paper to help readers visualize your approach and your 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

¹For the sake of readability, footnotes should be complete sentences.

²Multiple 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.

Algorithm 1 Online Projected Gradient Descent

Input: objective function f , training set size T , feasible set Ω
Initialize $\vec{w}^1 \leftarrow \vec{0}$
Set step size $\eta \leftarrow \frac{1}{\sqrt{T}}$
for $t = 1$ **to** T **do**
 Receive training point x_t
 $\vec{w}^{t+1} \leftarrow P_{\Omega}(\vec{w}^t - \eta \nabla f(\vec{w}, x_t)|_{\vec{w}^t})$
end for
Output: \vec{w}^{T+1}

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	✓

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 L^AT_EX), but always place two-column figures at the top or bottom of the page.

2.7. Algorithms

If you are using L^AT_EX, please use the “algorithm” and “algorithmic” environments to format pseudocode. These require the corresponding stylefiles, `algorithm.sty` and `algorithmic.sty`, which are supplied with this package. Algorithm 1 shows an example.

2.8. 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 that can be typeset, as

contrasted with figures, which contain graphical material that must be drawn. 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, but place two-column tables at the top or bottom of the page.

2.9. Citations and References

Please use APA reference format regardless of your formatter or word processor. If you rely on the L^AT_EX bibliographic facility, use `natbib.sty` and `iwml2016.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 (1959). Otherwise place the entire reference in parentheses with the authors and year separated by a comma (Samuel, 1959). List multiple references separated by semicolons (Kearns, 1989; Samuel, 1959; Mitchell, 1980). 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 (Michalski et al., 1983).

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 (Samuel, 1959), conference publications (Langley, 2000), book chapters (Newell & Rosenbloom, 1981), books (Duda et al., 2000), edited volumes (Michalski et al., 1983), technical reports (Mitchell, 1980), and dissertations (Kearns, 1989).

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).

3. Dual Submissions

Papers being submitted to *iWML* that

1. either have been published before in a journal/conference/workshop (even if in a form that is slightly different from the one being submitted to *iWML*),
2. or are currently under submission with some journal/conference/workshop other than *iWML*,

should include a section in the paper detailing the nature of the dual submission. This section should be unnumbered, should appear at the end of the paper, just before the references begin. The section should declare clearly, the details of the venue where the paper was earlier published/is currently under review. For journals, this should include the full journal citation including volume, number, page numbers and any DOI if available. For conferences and workshops, this should include the name, venue and organizers of the conference/workshop, as well as the URL to the conference/workshop website if available.

Acknowledgments

Do not include acknowledgments in the initial version of the papers submitted for review.

If a submission is accepted, the final camera-ready version can (and probably should) include acknowledgments. In this case, please place such acknowledgments in an unnumbered section at the end of the paper. Typically, this will include thanks to reviewers who gave useful comments, to colleagues who contributed to the ideas, and to funding agencies and corporate sponsors that provided financial support.

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