

Quick start for LaTeXing with the IEEEtran class for IEEE Computer Society Conferences

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Abstract—Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

I. INTRODUCTION

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus enim. Vestibulum pellentesque felis eu massa. TODO!

The remainder of the paper starts with a presentation of related work (Section II). It is followed by a presentation of hints on L^AT_EX (Section IV). The paper closes with a conclusion and an outlook on future work (Section V).

II. RELATED WORK

Winery [1] is a graphical modeling tool. The whole idea of TOSCA is explained by Binz et al. [2].

To search for related work, ScienceOS¹ can be used; it stores data in the EU and backs its answers with citations, which you still have to read and check yourself. Writing hints for student theses are given in the open-access book *Student Thesis Projects*². More hints are given in *Writing for Computer Science*³.

III. WRITING IN MARKDOWN

This section uses plain Markdown, not L^AT_EX. Its source is the file `content-markdown.md`, which the main file includes with the `markdownInput` command of the `markdown` package⁴. This needs LuaL^AT_EX. Text can be *emphasized* or **bold**, and a citation looks like this [3]. Section IV-O shows more Markdown.

¹<https://www.scienceos.ai/>

²<https://vdf.ch/product/student-thesis-projects-en.html>

³<https://doi.org/10.1007/978-1-4471-6639-9>

⁴<https://ctan.org/pkg/markdown>

IV. L^AT_EX HINTS

This section contains hints on writing L^AT_EX. It focuses on minimal examples, which can be directly adapted to the content

A. Handling of paragraphs

One sentence per line. This rule is important for the usage of version control systems. A new line is generated with a blank line. As you would do in Word: New paragraphs are generated by pressing enter. In L^AT_EX, this does not lead to a new paragraph as L^AT_EX joins subsequent lines. To start a new paragraph, press enter twice. This leads to an empty line. In word, there is the functionality to press shift and enter. This leads to a hard line break. The text starts at the beginning of a new line. In L^AT_EX, you can do that by using two backslashes (`\`).

Running text seldom needs a hard line break.

Please do *not* use two backslashes for new paragraphs. For instance, this sentence belongs to the same paragraph, whereas the last one started a new one. Andrew Stacey gives a long motivation for that in the section “Line Wrapping” of his *Document Revision System*⁵.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
725 %\begin{document}
726 One sentence per line.
727 This rule is important for the usage of version
    ↳ control systems.
728 A new line is generated with a blank line.
729 As you would do in Word:
730 New paragraphs are generated by pressing enter.
731 In LATEX, this does not lead to a new paragraph
    ↳ as LATEX joins subsequent lines.
732 To start a new paragraph, press enter twice.
733 This leads to an empty line.
734 In word, there is the functionality to press
    ↳ shift and enter.
735 This leads to a hard line break.
736 The text starts at the beginning of a new line.
737 In LATEX, you can do that by using two
    ↳ backslashes (\textbackslash\textbackslash)
    ↳ .
738 \\
739 Running text seldom needs a hard line break.
740
741 Please do \textit{not} use two backslashes for
    ↳ new paragraphs.
742 For instance, this sentence belongs to the same
    ↳ paragraph, whereas the last one started a
    ↳ new one.
743 Andrew Stacey gives a long motivation for that in
    ↳ the section \enquote{Line Wrapping} of
    ↳ his \href{https://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/#section.3}{\emph{
    ↳ Document Revision System}}\footnote{\url{
    ↳ https://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/}}.
```

B. Notes separated from the text

The package `mindflow` enables writing down notes and annotations in a way so that they are separated from the main text.

This is a small note.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
750 %\begin{document}
751 \begin{mindflow}
752 This is a small note.
753 \end{mindflow}
```

C. Handling TODOs

Marked text.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
758 %\begin{document}
759 \textmarker{Marked text.}
```

With `\textmarker`, only the text color is changed, since this also works well for individual words.

Marked text.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
764 %\begin{document}
765 \textcomment{Marked text.}{A comment on it.}
```

Manual marking for text that has been changed since the last version.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
768 %\begin{document}
769 \modified{Manual marking for text that has been
    ↳ changed since the last version.}
```

This is some text. Changed text.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
772 %\begin{document}
773 This is some text.
774 \change{FL1: text adjusted}{Changed text.}
```

Here is a comment.

⁵<https://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/>

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
777 %\begin{comment}
778 Here is a comment\sidecomment{Comment}.
```



TODO!

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
781 %\begin{comment}
782 \todo{A lot of text still needs to be produced
    \> here}
```

D. Hyphenation

L^AT_EX automatically hyphenates words. When using microtype, there should be fewer hyphenations than in other settings. You might still need to tweak the hyphenation. Here are some hints:

In case you write “application-specific”, then the word will only be hyphenated at the dash. You can also insert `\allowbreak{}` into the word, as in application-specific, but this is much more effort.

You can now write words containing hyphens which are hyphenated at other places in the word. For that, write “= instead of -”, as in application”=specific. This is enabled by an additional configuration of the babel package.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
792 %\begin{comment}
793 In case you write \enquote{application-specific},
    \> then the word will only be hyphenated at
    \> the dash.
794 You can also insert \verb1\allowbreak{1} into the
    \> word, as in applica\allowbreak{tion}-
    \> specific, but this is much more effort.
795
796 You can now write words containing hyphens which
    \> are hyphenated at other places in the
    \> word.
797 For that, write \verb1"=1 instead of \verb1-1, as
    \> in application"=specific.
798 This is enabled by an additional configuration of
    \> the babel package.
```

E. Typesetting Units

Numbers can be written plain text (such as 100), by using the siunitx package as follows: $100 \frac{\text{km}}{\text{h}}$, or by using plain L^AT_EX (and math mode): $100 \frac{\text{km}}{\text{h}}$.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
803 %\begin{comment}
804 Numbers can be written plain text (such as 100),
    \> by using the \href{https://ctan.org/pkg/
    \> siunitx}{siunitx} package as follows:
```

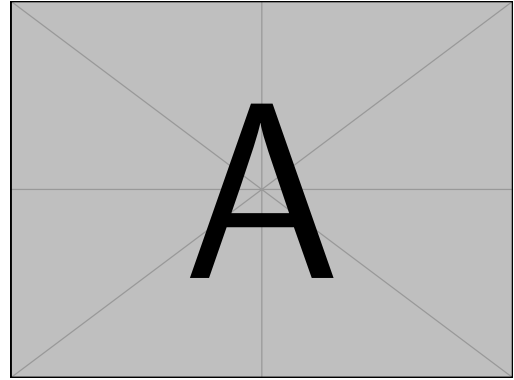


Fig. 1. Example figure for zceref demo

```
805 \SI{100}{\km\per\hour},
806 or by using plain \LaTeX{} (and math mode):
807 $\frac{100}{\text{h}}$.
```

5 % of 10 kg

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
810 %\begin{comment}
811 \SI{5}{\percent} of \SI{10}{kg}
```

Numbers are automatically grouped: 123 456.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
814 %\begin{comment}
815 Numbers are automatically grouped: \num{123456}.
```

F. Surrounding Text by Quotes

Please use the “enquote command” to quote something. Quoting with “quote” or “quote” also works.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
820 %\begin{comment}
821 Please use the \enquote{enquote command} to quote
    \> something.
822 Quoting with "quote" or ``quote'' also works.
```

G. Zref-clever examples

Demonstration of zref-clever: Zceref (short for zceref[S]) at the beginning of a sentence, zceref in all other cases.

Fig. 1 shows a simple fact, although Fig. 1 could also show something else.

Table I shows a simple fact, although Table I could also show something else.

Section IV-G shows a simple fact, although Section IV-G could also show something else.

Table I
EXAMPLE TABLE FOR ZCREF DEMO

Heading1	Heading2
One	Two
Three	Four

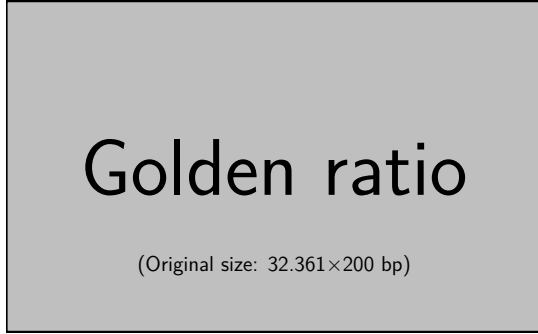


Fig. 2. Simple Figure. Based on Scharrer [3].

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

852 %\begin{figure}
853 \Zcref{fig:ex:cref} shows a simple fact, although
      ↳ \zcref{fig:ex:cref} could also show
      ↳ something else.
854 %\begin{table}
855 \Zcref{tab:ex:cref} shows a simple fact, although
      ↳ \zcref{tab:ex:cref} could also show
      ↳ something else.
856 %\begin{section}
857 \Zcref{sec:ex:cref} shows a simple fact, although
      ↳ \zcref{sec:ex:cref} could also show
      ↳ something else.

```

H. Figures

Fig. 2 shows something interesting.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

862 %\begin{figure}
863 \Zcref{fig:label} shows something interesting.
864 %\begin{figure}
865 \begin{figure}
866 \centering
867 \includegraphics[width=.8\linewidth]{example-
      ↳ image-golden}
868 \caption[Simple Figure]{
869   Simple Figure.
870   Based on \cite{mwe}.
871 }
872 \label{fig:label}
873 \end{figure}

```

Photos in JPEG or PNG format are included the same way, as shown in Fig. 3.



Fig. 3. Ulm Minster. Photo: wkrauth, CC0, via Wikimedia Commons.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

878 %\begin{figure}
879 \begin{figure}
880 \centering
881 \includegraphics[width=.5\linewidth]{figures/
      ↳ ulm-minster.jpg}
882 \caption{Ulm Minster. Photo: wkrauth, CC0, via
      ↳ Wikimedia Commons.}
883 \label{fig:jpg}
884 \end{figure}

```

A figure spans multiple columns when using `\begin{figure*}`. See Fig. 4 as an example.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

890 %\begin{figure*}
891 \begin{figure*}
892 \centering
893 % note that \textwidth is used instead of \
      ↳ linewidth
894 % This ensures that the graphics width is 60%
      ↳ of the "page" (text block), and not just
      ↳ 60% of the current text column
895 % See https://tex.stackexchange.com/a
      ↳ /17085/9075 for details
896 \includegraphics[width=.6\textwidth]{example-
      ↳ image-16x9}
897 \caption{16x9 Figure}
898 \label{fig:16x9}
899 \end{figure*}

```

I. Sub Figures

An example of two sub figures is shown in Fig. 5.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

907 %\begin{figure*}
908 \begin{figure*}[!t]
909 \centering

```

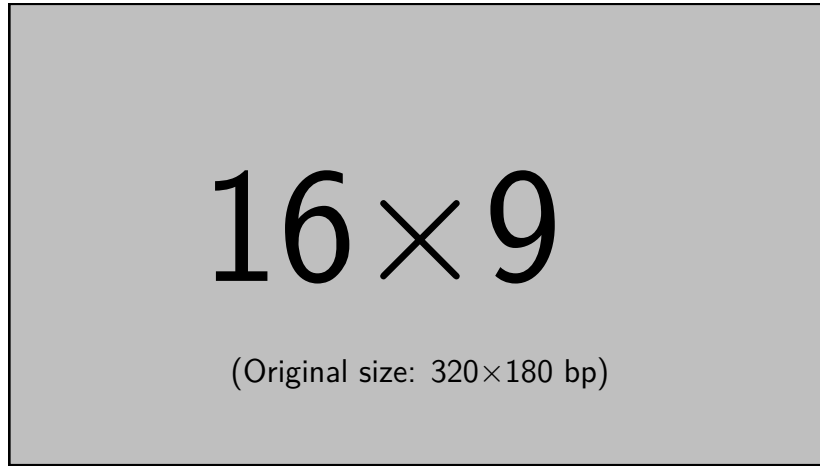
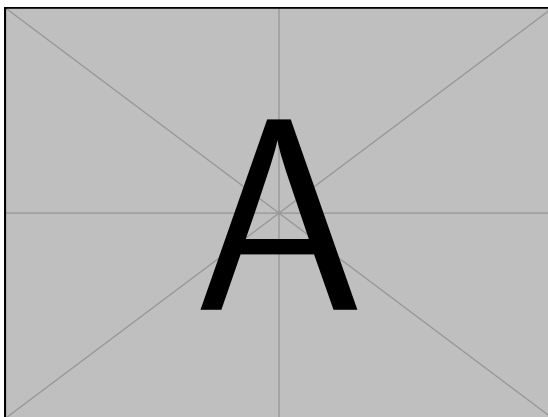
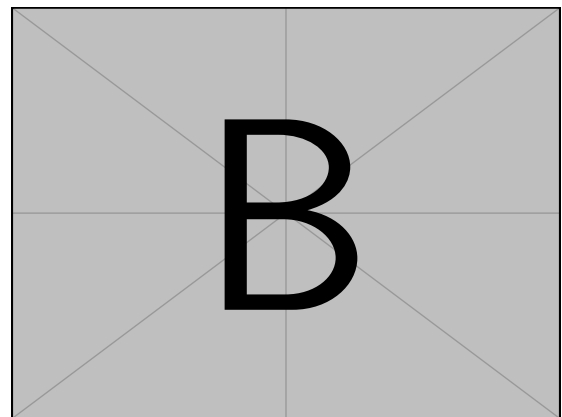


Fig. 4. 16x9 Figure



(a) Case I



(b) Case II

Fig. 5. Example figure with two sub figures.

```

910 \subfloat[Case I]{\includegraphics[width=.4\
    ↳ linewidth]{example-image-a}%
911 \label{fig:first_case}}
912 \hfil
913 \subfloat[Case II]{\includegraphics[width=.4\
    ↳ linewidth]{example-image-b}%
914 \label{fig:second_case}}
915 \caption{Example figure with two sub figures.}
916 \label{fig:two_sub_figures}
917 \end{figure*}

```

Note that often IEEE papers with subfigures do not employ subfigure captions (using the optional argument to `\subfloat[]`), but instead will reference/describe all of them (a), (b), etc., within the main caption. Be aware that for the subfig package to generate the (a), (b), etc., subfigure labels, the optional argument to `\subfloat` must be present. If a subcaption is not desired, leave its contents blank, e.g., `\subfloat[]`. An example is shown in Fig. 6.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

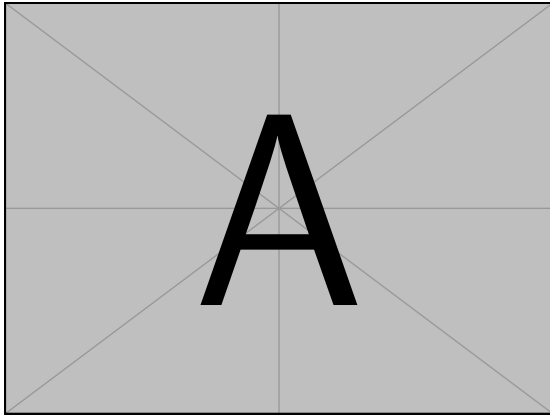
```

929 %\begin{figure}
930 \begin{figure*}[!t]
931 \centering
932 \subfloat[]{\includegraphics[width=.4\linewidth
    ↳ ]{example-image-a}%
933 \label{fig:first_case_ieee}}
934 \hfil
935 \subfloat[]{\includegraphics[width=.4\linewidth
    ↳ ]{example-image-b}%
936 \label{fig:second_case_ieee}}
937 \caption{Example figure with two sub figures.
    ↳ IEEE style. (a) The first case. (b) The
    ↳ second case.}
938 \label{fig:two_sub_figures_ieee}
939 \end{figure*}

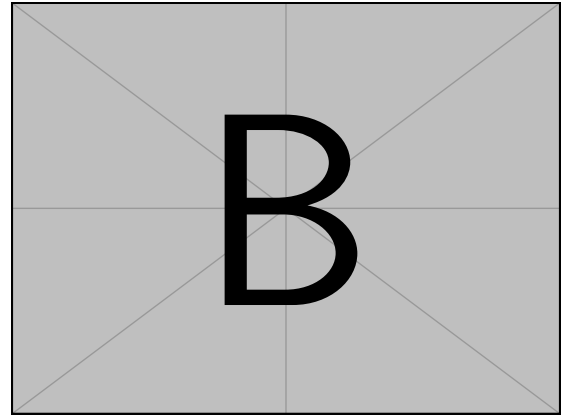
```

J. Figures with tikz

The tikz package creates graphics programmatically. This package generates grids and other regular structures.



(a)



(b)

Fig. 6. Example figure with two sub figures. IEEE style. (a) The first case. (b) The second case.

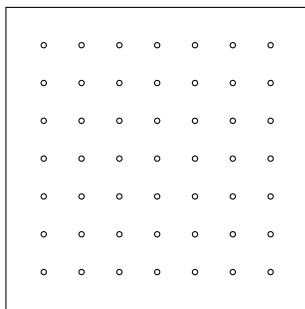


Fig. 7. A regular grid generated easily with two for loops.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

947 %\begin{figure}
948 \begin{figure}[ht]
949   \centering
950   \begin{tikzpicture}
951     \draw(0,0) rectangle (4,4);
952     \foreach \x in {0.5,1,1.5,2,2.5,3,3.5}
953       \foreach \y in {0.5,1,1.5,2,2.5,3,3.5}
954         \draw(\x,\y) circle (1pt);
955   \end{tikzpicture}
956   \caption{A regular grid generated easily with
957     \hookrightarrow two for loops.}\label{fig:tikz_example}
958 \end{figure}

```

K. Plots with pgfplots

The pgfplots package plots functions directly in L^AT_EX, similar to MATLAB or gnuplot. Some visual examples are available in the package documentation⁶.

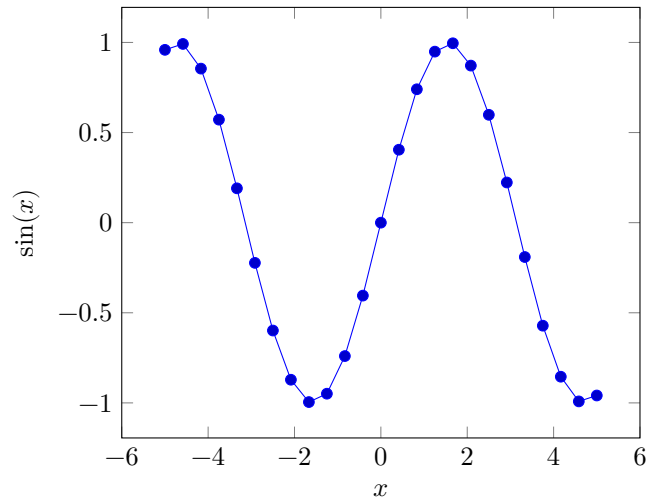


Fig. 8. Plot of $\sin(x)$ directly inside the figure environment with pgfplots.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

965 %\begin{figure}
966 \begin{figure}[ht]
967   \centering
968   \begin{tikzpicture}
969     \begin{axis}[xlabel=$x$, ylabel=$\sin(x)$]
970       \addplot {sin(deg(x))}; % Plot the sine
971       \end{axis}
972     \end{tikzpicture}
973     \caption{Plot of $\sin(x)$ directly inside the
974       \hookrightarrow figure environment with pgfplots.}
975     \label{fig:pgfplots_example}
976   \end{figure}

```

Coordinates can also be given explicitly instead of as a function:

⁶<http://texdoc.net/pkg/pgfplots>

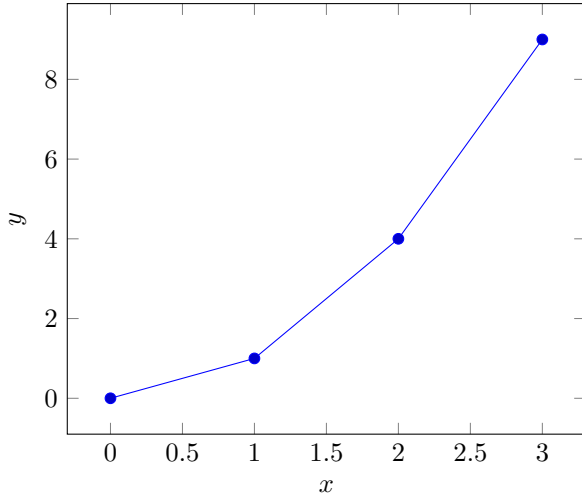


Fig. 9. Explicit coordinates plotted with pgfplots.

Table II
SIMPLE TABLE

Heading1	Heading2
One	Two
Three	Four

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

979 %\begin{figure}
980 \begin{figure}[ht]
981 \centering
982 \begin{tikzpicture}
983 \begin{axis}[xlabel=$x$, ylabel=$y$]
984 \addplot coordinates {(0,0) (1,1) (2,4) (3,
985 \end{axis}
986 \end{tikzpicture}
987 \caption{Explicit coordinates plotted with
988 \label{fig:pgfplots_coords}
989 \end{figure}

```

L. Tables

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

994 %\begin{table}
995 \begin{table}
996 \caption{Simple Table}
997 \label{tab:simple}
998 \centering
999 \begin{tabular}{ll}
1000 \toprule
1001 Heading1 & Heading2 \\
1002 \midrule
1003 One & Two \\
1004 Three & Four \\
1005 \bottomrule
1006 \end{tabular}
1007 \end{table}

```

Table III
TABLE WITH COLORED CELLS

Test	Result
A	pass
B	fail

Table IV
TABLE WITH DIAGONAL LINE

Column	A	B
Row	x	y

Rows and cells can be colored with `\rowcolor` and `\cellcolor` from the `colortbl` package, which `xcolor` loads with its option `table`.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1012 %\begin{table}
1013 \begin{table}
1014 \caption{Table with colored cells}
1015 \label{tab:colored}
1016 \centering
1017 \begin{tabular}{ll}
1018 \toprule
1019 \rowcolor{gray!20}
1020 Test & Result \\
1021 \midrule
1022 A & \cellcolor{green!20}pass \\
1023 B & \cellcolor{red!20}fail \\
1024 \bottomrule
1025 \end{tabular}
1026 \end{table}

```

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1029 %\begin{table}
1030 % Adapted from https://tex.stackexchange.com/a
1031 % /468994/9075
1032 \begin{table}
1033 \caption{Table with diagonal line}
1034 \label{tab:diag}
1035 \centering
1036 \begin{tabular}{ll|cl}
1037 \hline
1038 \diagbox{Row}{Column} & A & B \\
1039 \hline
1040 1 & x & y \\
1041 \hline
1042 \end{tabular}
1043 \end{table}

```

M. Source Code

Listing 1 shows source code written in XML. Line 2 contains a comment.

```

1 <listing name="example">

```

```

1 <listing name="example">
2   Floating
3 </listing>

```

Listing 2. Example XML listing – placed as floating figure

```

1 {
2   key: "value"
3 }

```

Listing 3. Example JSON listing – placed as floating figure

```

2 <!-- comment -->
3 <content>not interesting</content>
4 </listing>

```

Listing 1. Example XML Listing

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1049 %\begin{lstlisting}
1050 \Zcref{lst:XML} shows source code written in XML.
1051 \Zcref{line:comment} contains a comment.
1052
1053 \begin{lstlisting}[
1054   language=XML,
1055   caption={Example XML Listing},
1056   label={lst:XML}]
1057 <listing name="example">
1058   <!-- comment --> (* \label{line:comment} *)
1059   <content>not interesting</content>
1060 </listing>
1061 \end{lstlisting}

```

One can also add `float` as parameter to have the listing floating. Listing 2 shows the floating listing.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1067 %\begin{lstlisting}
1068 \begin{lstlisting}[
1069   % one can adjust spacing here if required
1070   % aboveskip=2.5\baselineskip,
1071   % belowskip=-.8\baselineskip,
1072   float,
1073   language=XML,
1074   caption={Example XML listing -- placed as
1075     ↳ floating figure},
1075   label={lst:flXML}]
1076 <listing name="example">
1077   Floating
1078 </listing>
1079 \end{lstlisting}

```

One can also typeset JSON as shown in Listing 3.

```

1 public class Hello {
2   public static void main (String[] args) {
3     System.out.println("Hello World!");
4   }
5 }

```

Listing 4. Example Java listing

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1084 %\begin{lstlisting}
1085 \begin{lstlisting}[
1086   float,
1087   language=json,
1088   caption={Example JSON listing -- placed as
1089     ↳ floating figure},
1089   label={lst:json}]
1090 {
1091   key: "value"
1092 }
1093 \end{lstlisting}

```

Java is also possible as shown in Listing 4.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1098 %\begin{lstlisting}
1099 \begin{lstlisting}[
1100   caption={Example Java listing},
1101   label=lst:java,
1102   language=Java,
1103   float]
1104 public class Hello {
1105   public static void main (String[] args) {
1106     System.out.println("Hello World!");
1107   }
1108 }
1109 \end{lstlisting}

```

N. Itemization

One can list items as follows:

- Item One
- Item Two

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```

1116 %\begin{itemize}
1117 \begin{itemize}
1118   \item Item One
1119   \item Item Two
1120 \end{itemize}

```

With the package `paralist`, one can create itemizations with lesser spacing:

- Item One
- Item Two

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1125 %\begin{compactitem}
1126 \begin{compactitem}
1127 \item Item One
1128 \item Item Two
1129 \end{compactitem}
```

One can enumerate items as follows:

- 1) Item One
- 2) Item Two

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1134 %\begin{enumerate}
1135 \begin{enumerate}
1136 \item Item One
1137 \item Item Two
1138 \end{enumerate}
```

With the package paralist, one can create enumerations with lesser spacing:

- 1) Item One
- 2) Item Two

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1143 %\begin{compactenum}
1144 \begin{compactenum}
1145 \item Item One
1146 \item Item Two
1147 \end{compactenum}
```

With paralist, one can even have all items typeset after each other and have them clean in the TeX document:

1) The first item, 2) the second item, and 3) the third item appear in one line.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1152 %\begin{inparaenum}
1153 \begin{inparaenum}
1154 \item The first item,
1155 \item the second item, and
1156 \item the third item appear in one line.
1157 \end{inparaenum}
```

O. Writing in Markdown

If you are new to L^AT_EX, you can start by writing your text in Markdown using the markdown package. L^AT_EX then takes care of the typesetting. Markdown and L^AT_EX can be mixed: Table V is written in Markdown and referenced from L^AT_EX. A whole section can be written in a separate Markdown file included by \markdownInput, as Section III shows. The markdown-latex-quickstart shows a complete document written in Markdown.

Right	Left	Centered
12	12	12
123	123	123

Table V

A TABLE WRITTEN IN MARKDOWN

Text can be *emphasized* or **bold**, and code is set in a monospaced font. A citation looks like this [3], and here is a footnote.⁷

- first point
- second point
- sub-point

1. firstly
2. secondly

Table V shows a table with caption. Its identifier {#tbl:markdown} is referenced by <#tbl:markdown>.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1170 %\begin{markdown}
1171 \begin{markdown}
1172 Text can be *emphasized* or **bold**, and `code`
1173 ↪ is set in a monospaced font.
1174 A citation looks like this [mwe], and here is a
1175 ↪ footnote.^[This is an inline footnote.]
1176 - first point
1177 - second point
1178 - sub-point
1179 1) firstly
1180 2) secondly
1181
1182 | Right | Left | Centered |
1183 |-----|:-----|:-----|
1184 | 12 | 12 | 12 |
1185 | 123 | 123 | 123 |
1186
1187 : A table written in Markdown {#tbl:markdown}
1188
1189 <#tbl:markdown> shows a table with caption.
1190 Its identifier `{#tbl:markdown}` is referenced by
1191 ↪ `<#tbl:markdown>`.
1192 \end{markdown}
```

P. Other Features

The words “workflow” and “dwarflike” can be copied from the PDF and pasted to a text file.

Corresponding L^AT_EX code of ./paper-basic-listings.tex

```
1200 %\begin{dwarflike}
1201 \begin{dwarflike}
1202 The words \enquote{workflow} and \enquote{
1203 ↪ dwarflike} can be copied from the PDF and
1204 ↪ pasted to a text file.
```

⁷This is an inline footnote.

The symbol for powerset is now correct: $\wp$ and not a Weierstrass p ($\wp$).
 $\wp(1, 2, 3)$

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
1204 æÉüŦöŦ
1205 The symbol for powerset is now correct: $\
      ↪ powerset$ and not a Weierstrass p ($\wp$)
      ↪ .
1206
1207 $\powerset(\{1,2,3\})$
```

Brackets work as designed: `<test>` One can also input backticks in verbatim text: ``test``.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
1210 æÉüŦöŦ
1211 Brackets work as designed:
1212 <test>
1213 One can also input backticks in verbatim text: \
      ↪ verbatim`test`.
```

Acronyms can be typeset in running text with `\initialism`, which sets them as small caps that blend into the surrounding lowercase text. It is the lightweight alternative to the full acronym and glossary management (`\gls`, with an automatic list of abbreviations) provided by the thesis variants: `\initialism` only typesets the acronym and does not add it to any list. The macro and the ready-made acronyms (`\OMG`, `\BPEL`, `\BPMN`, `\UML`) are defined in `commands.tex`, where you can add your own.

The UML is maintained by the OMG; related standards include BPEL and BPMN. Any acronym can be set inline with REST or HTTP.

Corresponding L^AT_EX code of `./paper-basic-listings.tex`

```
1218 æÉüŦöŦ
1219 The \UML is maintained by the \OMG; related
      ↪ standards include \BPEL and \BPMN.
1220 Any acronym can be set inline with \initialism{
      ↪ REST} or \initialism{HTTP}.
```

V. CONCLUSION AND OUTLOOK

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero,

nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

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ACKNOWLEDGMENT

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(2015/08/26)

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- [4] B. Veytsman, “Latex class for the association for computing machinery – acknowledgement information,” Aug. 2021. [Online]. Available: <https://github.com/borisveytsman/acmart/blob/1704c8bf7eee92a1515ff755f5118b6a22bb1f8e/samples/samples.dtx#L709>

All links were last followed on October 5, 2020.