

# Paper Title

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Institute

**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.

**Keywords:** keyword1, keyword2

## 1 Introduction

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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. Do  et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

The remainder of the paper starts with a presentation of related work (Sect. 2). It is followed by a presentation of hints on L<sup>A</sup>T<sub>E</sub>X (Sect. 3). Finally, a conclusion is drawn and outlook on future work is made (Sect. 4).

## 2 Related Work

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

## 3 LaTeX Hints

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

### 3.1 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 LaTeX, this does not lead to a new paragraph as LaTeX joins subsequent lines. In case you want a new paragraph, just 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 LaTeX, you can do that by using two backslashes (`\\`).

This is rarely used.

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. A long motivation for that is provided at <http://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/#section.3>.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

414 One sentence per line.
415 This rule is important for the usage of version control
    ↪ systems.
416 A new line is generated with a blank line.
417 As you would do in Word:
418 New paragraphs are generated by pressing enter.
419 In LaTeX, this does not lead to a new paragraph as LaTeX
    ↪ joins subsequent lines.
420 In case you want a new paragraph, just press enter twice (!).
421 This leads to an empty line.
422 In word, there is the functionality to press shift and enter.
423 This leads to a hard line break.
424 The text starts at the beginning of a new line.
425 In LaTeX, you can do that by using two backslashes
    ↪ (\textbackslash\textbackslash).\
426 This is rarely used.
427
428 Please do \textit{not} use two backslashes for new
    ↪ paragraphs.
429 For instance, this sentence belongs to the same paragraph,
    ↪ whereas the last one started a new one.
430 A long motivation for that is provided at
    ↪ \url{http://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/#section.3}.

```

### 3.2 Hyphenation

L<sup>A</sup>T<sub>E</sub>X automatically hyphenates words. When using microtype, there should be less hyphenations than in other settings. It might be necessary to tweak the hyphenations nevertheless. Here are some hints:

In case you write “application-specific”, then the word will only be hyphenated at the dash. You can also write `applica\allowbreak{}tion-specific` (result: 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 instance, `application=specific` gets application=specific. This is enabled by an additional configuration of the babel package.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

441 In case you write \enquote{application-specific}, then the
    ↪ word will only be hyphenated at the dash.
442 You can also write \verb!applica\allowbreak{}tion-specific!
    ↪ (result: applica\allowbreak{}tion-specific), but this is
    ↪ much more effort.
443
444 You can now write words containing hyphens which are
    ↪ hyphenated at other places in the word.
445 For instance, \verb!application"=specific! gets
    ↪ application"=specific.
446 This is enabled by an additional configuration of the babel
    ↪ package.

```

### 3.3 Typesetting Units

Numbers can written plain text (such as 100), by using the siunitx package like that: 100  $\frac{\text{km}}{\text{h}}$ , or by using plain L<sup>A</sup>T<sub>E</sub>X (and math mode): 100  $\frac{km}{h}$ .

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

452 Numbers can written plain text (such as 100), by using the
    ↪ siunitx package like that:
453 \SI{100}{\km\per\hour},
454 or by using plain \LaTeX{} (and math mode):
455 $100 \frac{\mathit{km}}{h}$.

```

5 % of 10 kg

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

459 \SI{5}{\percent} of \SI{10}{kg}

```

Numbers are automatically grouped: 123 456.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

463 Numbers are automatically grouped: \num{123456}.

```

### 3.4 Surrounding Text by Quotes

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

469 Please use the \enquote{enquote command} to quote something.
470 Quoting with "`quote'" or ``quote'" also works.
471

```

### 3.5 Cleveref examples

Cleveref demonstration: Cref at beginning of sentence, cref in all other cases.

Figure

**Fig. 1:** Example figure for cref demo

Table

**Table 1:** Example table for cref demo

Figure 1 shows a simple fact, although Fig. 1 could also show something else.  
 Table 1 shows a simple fact, although Table 1 could also show something else.  
 Section 3.5 shows a simple fact, although Sect. 3.5 could also show something else.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

493 \Cref{fig:ex:cref} shows a simple fact, although
    ↪ \cref{fig:ex:cref} could also show something else.
494
495 \Cref{tab:ex:cref} shows a simple fact, although
    ↪ \cref{tab:ex:cref} could also show something else.
496
497 \Cref{sec:ex:cref} shows a simple fact, although
    ↪ \cref{sec:ex:cref} could also show something else.

```

### 3.6 Figures

Figure 2 shows something interesting.



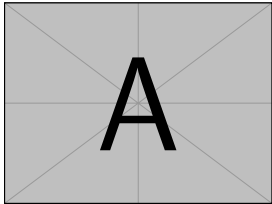
**Fig. 2:** Simple Figure. Based on Scharrer [3].

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```
502 \Cref{fig:label} shows something interesting.  
503  
504 \begin{figure}  
505   \centering  
506   \includegraphics[width=.8\textwidth]{example-image-golden}  
507   \caption[Simple Figure]{Simple Figure. Based on  
    ↪ \citet{mwe}.}  
508   \label{fig:label}  
509 \end{figure}
```

One can also have pictures floating inside text:

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . If you read this text, you will get no information  $E = mc^2$ . Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ . This text should contain all letters of the alphabet and it should be written in of the original language.  $\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$ . There is no need for special content, but the length of words should match the language.  $a \sqrt[n]{b} = \sqrt[n]{a^n b}$ . Hello, here is some text without a meaning.  $d\Omega = \sin \vartheta d\vartheta d\varphi$ . This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . This text should contain all letters of the alphabet and it should be written in of the original language  $E = mc^2$ . There is no need for special content, but the length of words should match the language.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ .



**Fig. 3:** A floating figure

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```
516 \begin{floatingfigure}{.33\linewidth}
517 \includegraphics[width=.29\linewidth]{example-image-a}
518 \caption{A floating figure}
519 \end{floatingfigure}
520 \blindtext[2]
```

3.7 Tables

**Table 2:** Simple Table

| Heading1 | Heading2 |
|----------|----------|
| One      | Two      |
| Thee     | Four     |

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

527 \begin{table}
528   \caption{Simple Table}
529   \label{tab:simple}
530   \centering
531   \begin{tabular}{ll}
532     \toprule
533     Heading1 & Heading2 \\
534     \midrule
535     One      & Two      \\
536     Thee     & Four     \\
537     \bottomrule
538   \end{tabular}
539 \end{table}

```

**Table 3:** Table with diagonal line

|                       |                        |  |        |       |
|-----------------------|------------------------|--|--------|-------|
| Diag<br>Column Head I | Diag Column<br>Head II |  | Second | Third |
|                       |                        |  | foo    | bar   |

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

543 % Source: https://tex.stackexchange.com/a/468994/9075
544 \begin{table}
545   \caption{Table with diagonal line}
546   \label{tab:diag}
547   \begin{center}
548     \begin{tabular}{|l|c|c|}
549       \hline
550       \diagbox[width=10em]{Diag\ Column Head I}{Diag Column\ Head
551       ↪ II} & Second & Third \\
552       \hline
553       & foo & bar \\
554     \end{tabular}
555   \end{center}
556 \end{table}

```



### 3.8 Source Code

minted is a sophisticated packes to enable properly highlighted listings. It uses the pygments library, which in turn requires Python.

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

```

1 <listing name="example">
2   <!-- comment -->
3   <content>not interesting</content>
4 </listing>

```

**List. 1:** Example XML listing using minted

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

566 \Cref{lst:XML} shows source code written in XML.
567 \refline{line:comment} contains a comment.
568
569 \begin{listing}[htbp]
570   \begin{minted}[linenos=true,escapeinside=||]{xml}
571     <listing name="example">
572       <!-- comment --> |\labelline{line:comment}|
573       <content>not interesting</content>
574     </listing>
575   \end{minted}
576   \caption{Example XML listing using minted}
577   \label{lst:XML}
578 \end{listing}

```

One can also typeset JSON as shown in Listing 2.

```

1 {
2   key: "value"
3 }

```

**List. 2:** Example JSON listing using minted

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

584 \begin{listing}[htbp]
585     \begin{minted}[linenos=true,escapeinside=||]{json}
586     {
587         key: "value"
588     }
589 \end{minted}
590 \caption{Example JSON listing using minted}
591 \label{lst:f1JSON}
592 \end{listing}

```

Java is also possible as shown in ??.

```

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

```

**List. 3:** Java code rendered using minted

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

598 \begin{listing}[htbp]
599     \begin{minted}[linenos=true,escapeinside=||]{java}
600     public class Hello {
601         public static void main (String[] args) {
602             System.out.println("Hello World!");
603         }
604     }
605 \end{minted}
606 \caption{Java code rendered using minted}
607 \label{lst:java}
608 \end{listing}

```

### 3.9 Itemization

One can list items as follows:

- Item One
- Item Two

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

616 \begin{itemize}
617 \item Item One
618 \item Item Two
619 \end{itemize}

```

One can enumerate items as follows:

1. Item One
2. Item Two

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

626 \begin{enumerate}
627 \item Item One
628 \item Item Two
629 \end{enumerate}

```

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

1. All these items... 2. ...appear in one line 3. This is enabled by the paralist package.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

636 \begin{inparaenum}
637 \item All these items...
638 \item ...appear in one line
639 \item This is enabled by the paralist package.
640 \end{inparaenum}

```

### 3.10 Other Features

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

646 The words \enquote{workflow} and \enquote{dwarflike} can be
↪ copied from the PDF and pasted to a text file.

```

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

650 The symbol for powerset is now correct:  $\mathcal{P}$  and not a
      ↪ Weierstrass p ( $\wp$ ).
651
652  $\mathcal{P}(\{1,2,3\})$ 

```

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```

656 Brackets work as designed:
657 <test>
658 One can also input backquotes in verbatim text:
      ↪ \verb|`test`|.

```

## 4 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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### Acknowledgments ...

In the bibliography, use `\textsuperscript` for “st”, “nd”, ...: E.g., “The 2<sup>nd</sup> conference on examples”. When you use JabRef, you can use the `cleanup` command to achieve that. See <https://help.jabref.org/en/CleanupEntries> for an overview of the `cleanup` functionality.

## References

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All links were last followed on October 5, 2020.