

# 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

```

421 One sentence per line.
422 This rule is important for the usage of version control
    ↪ systems.
423 A new line is generated with a blank line.
424 As you would do in Word:
425 New paragraphs are generated by pressing enter.
426 In LaTeX, this does not lead to a new paragraph as LaTeX
    ↪ joins subsequent lines.
427 In case you want a new paragraph, just press enter twice (!).
428 This leads to an empty line.
429 In word, there is the functionality to press shift and enter.
430 This leads to a hard line break.
431 The text starts at the beginning of a new line.
432 In LaTeX, you can do that by using two backslashes
    ↪ (\textbackslash\textbackslash).\
433 This is rarely used.
434
435 Please do \textit{not} use two backslashes for new
    ↪ paragraphs.
436 For instance, this sentence belongs to the same paragraph,
    ↪ whereas the last one started a new one.
437 A long motivation for that is provided at
    ↪ \url{http://loopspace.mathforge.org/HowDidIDoThat/TeX/VCS/#section.3}.

```

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

```

445 \begin{mindflow}
446 This is a small note.
447 \end{mindflow}

```

### 3.3 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

```

458 In case you write \enquote{application-specific}, then the
    ↪ word will only be hyphenated at the dash.
459 You can also write \verb!applica\allowbreak\}tion-specific!
    ↪ (result: applica\allowbreak\}tion-specific), but this is
    ↪ much more effort.
460
461 You can now write words containing hyphens which are
    ↪ hyphenated at other places in the word.
462 For instance, \verb!application"=specific! gets
    ↪ application"=specific.
463 This is enabled by an additional configuration of the babel
    ↪ package.

```

### 3.4 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

```

469 Numbers can written plain text (such as 100), by using the
    ↪ siunitx package like that:
470 \SI{100}{\km\per\hour},
471 or by using plain \LaTeX{} (and math mode):
472 $100 \frac{\mathit{km}}{h}$.

```

5 % of 10 kg

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

```

476 \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

```

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

```

3.5 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

486 Please use the \enquote{enquote command} to quote something.  
487 Quoting with “`quote” or “`quote” also works.  
488

3.6 Cleveref examples

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

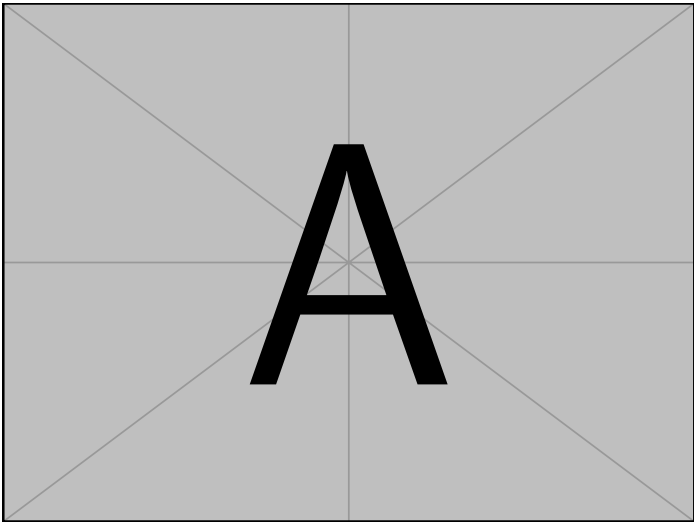


Fig. 1: Example figure for cref demo

Heading1	Heading2
One	Two
Thee	Four

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 3.6 shows a simple fact, although Sect. 3.6 could also show something else.

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

```

518 \Cref{fig:ex:cref} shows a simple fact, although
    ↪ \cref{fig:ex:cref} could also show something else.
519
520 \Cref{tab:ex:cref} shows a simple fact, although
    ↪ \cref{tab:ex:cref} could also show something else.
521
522 \Cref{sec:ex:cref} shows a simple fact, although
    ↪ \cref{sec:ex:cref} could also show something else.

```

### 3.7 Figures

Figure 2 shows something interesting.



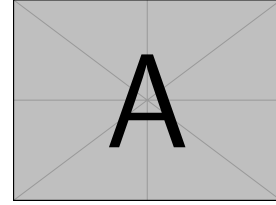
**Fig. 2:** Simple Figure. Based on Scharrer [3].

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

```
528 \Cref{fig:label} shows something interesting.  
529  
530 \begin{figure}  
531   \centering  
532   \includegraphics[width=.8\linewidth]{example-image-golden}  
533   \caption[Simple Figure]{Simple Figure. Based on  
    ↪ \citet{mwe}.}  
534   \label{fig:label}  
535 \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



**Fig. 3:** A floating figure

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.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ .

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

```
542 \begin{floatingfigure}{.33\linewidth}
543 \includegraphics[width=.29\linewidth]{example-image-a}
544 \caption{A floating figure}
545 \end{floatingfigure}
546 \blindtext[2]
```

### 3.8 Sub Figures

An example of two sub figures is shown in Fig. 4.



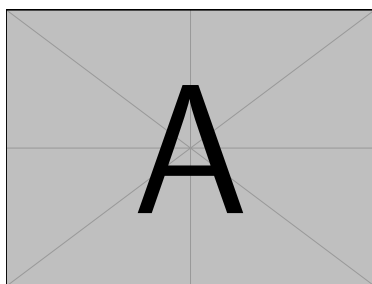
Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted.tex

```
555 \begin{figure}[!b]
556     \centering
557     \subfloat[Case
558         ↪ I]{\includegraphics[width=.4\linewidth]{example-image-a}%
559         \label{fig:first_case}}
560     \hfil
561     \subfloat[Case
562         ↪ II]{\includegraphics[width=.4\linewidth]{example-image-b}%
563         \label{fig:second_case}}
564     \caption{Example figure with two sub figures.}
565     \label{fig:two_sub_figures}
566 \end{figure}
```

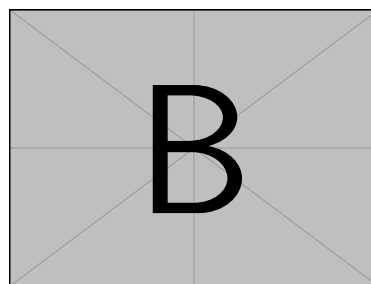
3.9 Tables

Table 2: Simple Table

Heading1	Heading2
One	Two
Thee	Four



(a) Case I



(b) Case II

Fig. 4: Example figure with two sub figures.

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

```

570 \begin{table}
571   \caption{Simple Table}
572   \label{tab:simple}
573   \centering
574   \begin{tabular}{ll}
575     \toprule
576     Heading1 & Heading2 \\
577     \midrule
578     One      & Two      \\
579     Thee     & Four     \\
580     \bottomrule
581   \end{tabular}
582 \end{table}

```

**Table 3:** Table with diagonal line

Diag Column Head I	Diag Column Head II	Second	Third
		foo	bar

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

```

586 % Source: https://tex.stackexchange.com/a/468994/9075
587 \begin{table}
588   \caption{Table with diagonal line}
589   \label{tab:diag}
590   \begin{center}
591     \begin{tabular}{|l|c|c|}
592       \hline
593       \diagbox[width=10em]{Diag\\Column Head I}{Diag Column\\Head
594       ↪ II} & Second & Third \\
595       \hline
596       & foo & bar \\
597       \hline
598     \end{tabular}
599   \end{center}

```

### 3.10 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

```

609 \Cref{lst:XML} shows source code written in XML.
610 \refline{line:comment} contains a comment.
611
612 \begin{listing}[htbp]
613   \begin{minted}[linenos=true,escapeinside=||]{xml}
614   <listing name="example">
615     <!-- comment --> |\labelline{line:comment}|
616     <content>not interesting</content>
617   </listing>
618   \end{minted}
619   \caption{Example XML listing using minted}
620   \label{lst:XML}
621 \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

```

627 \begin{listing}[htbp]
628     \begin{minted}[linenos=true,escapeinside=||]{json}
629     {
630         key: "value"
631     }
632 \end{minted}
633 \caption{Example JSON listing using minted}
634 \label{lst:f1JSON}
635 \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

```

641 \begin{listing}[htbp]
642     \begin{minted}[linenos=true,escapeinside=||]{java}
643     public class Hello {
644         public static void main (String[] args) {
645             System.out.println("Hello World!");
646         }
647     }
648 \end{minted}
649 \caption{Java code rendered using minted}
650 \label{lst:java}
651 \end{listing}

```

### 3.11 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

```

659 \begin{itemize}
660 \item Item One
661 \item Item Two
662 \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

```

669 \begin{enumerate}
670 \item Item One
671 \item Item Two
672 \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

```

679 \begin{inparaenum}
680 \item All these items...
681 \item ...appear in one line
682 \item This is enabled by the paralist package.
683 \end{inparaenum}

```

### 3.12 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

```

689 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

```

693 The symbol for powerset is now correct:  $\mathcal{P}$  and not a
    ↪ Weierstrass p ( $\wp$ ).
694
695  $\mathcal{P}(\{1,2,3\})$ 

```

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

```

699 Brackets work as designed:
700 <test>
701 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.

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.

**Acknowledgments** Identification of funding sources and other support, and thanks to individuals and groups that assisted in the research and the preparation of the work should be included in an acknowledgment section, which is placed just before the reference section in your document [4].

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 clean up

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.