

# Paper Title

Firstname Lastname and Firstname Lastname

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 lect  donec 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  $\text{\LaTeX}$  code of paper-minted-newtx.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 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  $\text{\LaTeX}$  code of paper-minted-newtx.tex

```

438 \begin{mindflow}
439 This is a small note.
440 \end{mindflow}

```

### 3.3 Hyphenation

$\text{\LaTeX}$  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: `applica-tion-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-newtx.tex`

```

451 In case you write \enquote{application-specific}, then the word will
    ↪ only be hyphenated at the dash.
452 You can also write \verblapplica\allowbreak{}tion-specific1 (result:
    ↪ applica\allowbreak{}tion-specific), but this is much more
    ↪ effort.
453
454 You can now write words containing hyphens which are hyphenated at
    ↪ other places in the word.
455 For instance, \verblapplication"=specific1 gets
    ↪ application"=specific.
456 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  $\frac{\text{km}}{\text{h}}$ .

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

```

462 Numbers can written plain text (such as 100), by using the siunitx
    ↪ package like that:
463 \SI{100}{\km\per\hour},
464 or by using plain \LaTeX{} (and math mode):
465 $100 \frac{\mathit{km}}{h}$.

```

5 % of 10 kg

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

```

469 \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-newtx.tex`

```

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

```

### 3.5 Surrounding Text by Quotes

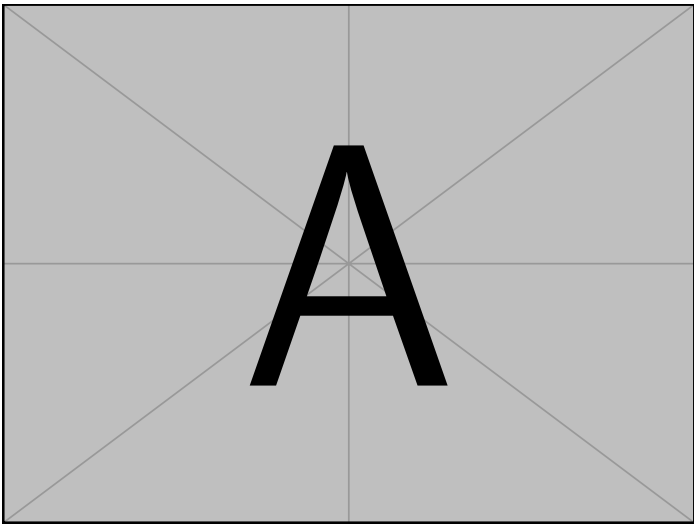
Please use the “enquote command” to quote something. Quoting with “quote” or “quote” also works.

Corresponding  $\LaTeX$  code of paper-minted-newtx.tex

```
479 Please use the \enquote{enquote command} to quote something.
480 Quoting with ``quote'' or ``quote'' also works.
481
```

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-newtx.tex

```

511 \Cref{fig:ex:cref} shows a simple fact, although \cref{fig:ex:cref}
    ↪ could also show something else.
512
513 \Cref{tab:ex:cref} shows a simple fact, although \cref{tab:ex:cref}
    ↪ could also show something else.
514
515 \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-newtx.tex

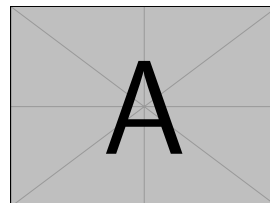
```

521 \Cref{fig:label} shows something interesting.
522
523 \begin{figure}
524   \centering
525   \includegraphics[width=.8\linewidth]{example-image-golden}
526   \caption[Simple Figure]{Simple Figure. Based on \citet{mwe}.}
527   \label{fig:label}
528 \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-newtx.tex

```
535 \begin{floatingfigure}{.33\linewidth}
536 \includegraphics[width=.29\linewidth]{example-image-a}
537 \caption{A floating figure}
538 \end{floatingfigure}
539 \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-newtx.tex

```
548 \begin{figure}[!b]
549 \centering
550 \subfloat[Case
551 ↪ I]{\includegraphics[width=.4\linewidth]{example-image-a}%
552 \label{fig:first_case}}
553 \subfloat[Case
554 ↪ II]{\includegraphics[width=.4\linewidth]{example-image-b}%
555 \label{fig:second_case}}
556 \caption{Example figure with two sub figures.}
557 \label{fig:two_sub_figures}
558 \end{figure}
```

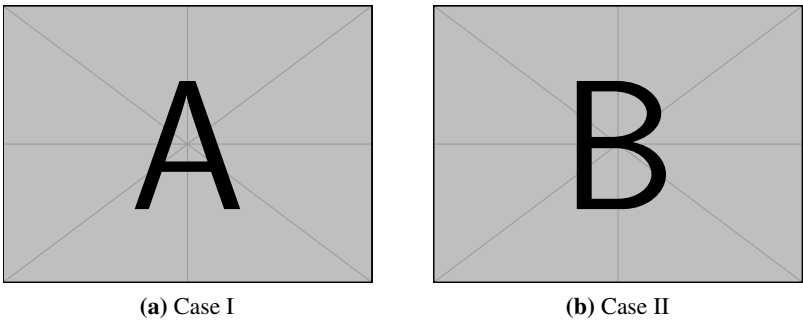
3.9 Tables

**Table 2:** Simple Table

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

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

```
563 \begin{table}
564   \caption{Simple Table}
565   \label{tab:simple}
566   \centering
567   \begin{tabular}{ll}
568     \toprule
569     Heading1 & Heading2 \\
570     \midrule
571     One      & Two      \\
572     Thee     & Four     \\
573     \bottomrule
574   \end{tabular}
575 \end{table}
```



**Fig. 4:** Example figure with two sub figures.



**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-newtx.tex

```

579 % Source: https://tex.stackexchange.com/a/468994/9075
580 \begin{table}
581 \caption{Table with diagonal line}
582 \label{tab:diag}
583 \begin{center}
584 \begin{tabular}{|l|c|c|}
585 \hline
586 \diagbox[width=10em]{Diag\\Column Head I}{Diag Column\\Head II} &
    \leftrightarrow Second & Third \\
587 \hline
588 & foo & bar \\
589 \hline
590 \end{tabular}
591 \end{center}
592 \end{table}

```

**3.10 Source Code**

minted is a sophisticated packages 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-newtx.tex

```

602 \Cref{lst:XML} shows source code written in XML.
603 \refline{line:comment} contains a comment.
604
605 \begin{listing}[htbp]
606     \begin{minted}[linenos=true,escapeinside=||]{xml}
607     <listing name="example">
608         <!-- comment --> |\labelline{line:comment}|
609         <content>not interesting</content>
610     </listing>
611 \end{minted}
612 \caption{Example XML listing using minted}
613 \label{lst:XML}
614 \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-newtx.tex

```

620 \begin{listing}[htbp]
621     \begin{minted}[linenos=true,escapeinside=||]{json}
622     {
623         key: "value"
624     }
625 \end{minted}
626 \caption{Example JSON listing using minted}
627 \label{lst:flJSON}
628 \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 mintedCorresponding L<sup>A</sup>T<sub>E</sub>X code of paper-minted-newtx.tex

```

634 \begin{listing}[htbp]
635     \begin{minted}[linenos=true,escapeinside=||]{java}
636     public class Hello {
637         public static void main (String[] args) {
638             System.out.println("Hello World!");
639         }
640     }
641 \end{minted}
642 \caption{Java code rendered using minted}
643 \label{lst:java}
644 \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-newtx.tex

```

652 \begin{itemize}
653 \item Item One
654 \item Item Two
655 \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-newtx.tex

```

662 \begin{enumerate}
663 \item Item One
664 \item Item Two
665 \end{enumerate}

```

With paralist, one can even have all items typset 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-newtx.tex

```
672 \begin{inparaenum}
673   \item All these items...
674   \item ...appear in one line
675   \item This is enabled by the paralist package.
676 \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-newtx.tex

```
682 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:  $\wp$  and not a Weierstrass p ( $\wp$ ).  
 $\wp(1, 2, 3)$

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

```
686 The symbol for powerset is now correct:  $\wp$  and not a
    ↪ Weierstrass p ( $\wp$ ).
687
688  $\wp(\{1, 2, 3\})$ 
```

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-newtx.tex

```
692 Brackets work as designed:
693 <test>
694 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.