

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: First keyword · Second keyword · Third keyword

1 Introduction

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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  mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.TODO!

The remainder of the paper starts with a presentation of related work (Sect. 2). It is followed by a presentation of hints on \LaTeX (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^AT_EX code of ./paper-minted-newtx.tex

```

565 One sentence per line.
566 This rule is important for the usage of version control
    ↪ systems.
567 A new line is generated with a blank line.
568 As you would do in Word:
569 New paragraphs are generated by pressing enter.
570 In LaTeX, this does not lead to a new paragraph as LaTeX
    ↪ joins subsequent lines.
571 In case you want a new paragraph, just press enter
    ↪ twice!
572 This leads to an empty line.
573 In word, there is the functionality to press shift and
    ↪ enter.
574 This leads to a hard line break.
575 The text starts at the beginning of a new line.
576 In LaTeX, you can do that by using two backslashes
    ↪ (\textbackslash\textbackslash).
577 \\
578 This is rarely used.
579
580 Please do \textit{not} use two backslashes for new
    ↪ paragraphs.
581 For instance, this sentence belongs to the same
    ↪ paragraph, whereas the last one started a new one.
582 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^AT_EX code of ./paper-minted-newtx.tex

```

590 \begin{mindflow}
591 This is a small note.
592 \end{mindflow}

```

3.3 Handling TODOs

Markierter Text.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
598 \textmarker{Markierter Text.}
```

Bei `\textmarker` wird nur die Textfarbe geändert, da dies auch bei einigen Worten gut funktioniert.

Markierter Text.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
604 \textcomment{Markierter Text.}{Kommentar dazu.}
```

Manuelle Markierung für Text, der seit der letzten Version geändert wurde.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
608 \modified{Manuelle Markierung für Text, der seit der
↪ letzten Version geändert wurde.}
```

Das ist ein Text. Geänderter Text.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
612 Das ist ein Text.
613 \change{FL1: Text angepasst}{Geänderter Text}.
```

Hier nur ein Kommentar.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
617 Hier nur ein Kommentar\sidecomment{Kommentar}.
```

TODO!

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
621 \todo{Hier muss noch kräftig Text produziert werden}
```

3.4 Hyphenation

L^AT_EX automatically hyphenates words. When using microtype, there should be fewer 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 \LaTeX code of `./paper-minted-newtx.tex`

```

632 In case you write \enquote{application-specific}, then
    ↪ the word will only be hyphenated at the dash.
633 You can also write
    ↪ \verb!applica\allowbreak!tion-specific! (result:
    ↪ applica\allowbreak!tion-specific), but this is much
    ↪ more effort.
634
635 You can now write words containing hyphens which are
    ↪ hyphenated at other places in the word.
636 For instance, \verb!application"=specific! gets
    ↪ application"=specific.
637 This is enabled by an additional configuration of the
    ↪ babel package.
```

3.5 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 \LaTeX (and math mode): $100 \frac{\text{km}}{\text{h}}$.

Corresponding \LaTeX code of `./paper-minted-newtx.tex`

```

643 Numbers can be written plain text (such as 100), by
    ↪ using the
    ↪ \href{https://ctan.org/pkg/siunitx}{siunitx} package
    ↪ as follows:
644 \SI{100}{\km\per\hour},
645 or by using plain \LaTeX (and math mode):
646 $100 \frac{\mathit{km}}{h}$.
```

5 % of 10 kg

Corresponding \LaTeX code of `./paper-minted-newtx.tex`

```

650 \SI{5}{\percent} of \SI{10}{kg}
```

Numbers are automatically grouped: 123 456.

Corresponding \LaTeX code of `./paper-minted-newtx.tex`

```

654 Numbers are automatically grouped: \num{123456}.
```

3.6 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-minted-newtx.tex

660 Please use the \enquote{enquote command} to quote
↪ something.
661 Quoting with "`quote'" or ``quote'" also works.
662

3.7 Cleveref examples

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

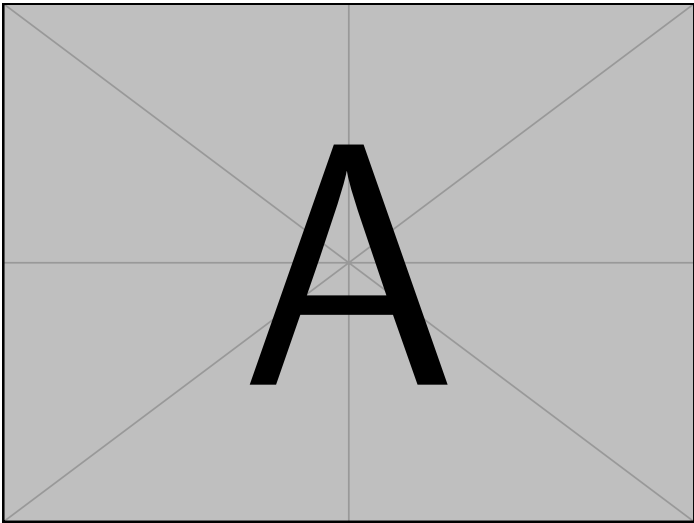


Fig. 1: Example figure for cref demo

| 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 3.7 shows a simple fact, although Sect. 3.7 could also show something else.

Corresponding \LaTeX code of `./paper-minted-newtx.tex`

```
692 \Cref{fig:ex:cref} shows a simple fact, although  
    ⇨ \cref{fig:ex:cref} could also show something else.  
693  
694 \Cref{tab:ex:cref} shows a simple fact, although  
    ⇨ \cref{tab:ex:cref} could also show something else.  
695  
696 \Cref{sec:ex:cref} shows a simple fact, although  
    ⇨ \cref{sec:ex:cref} could also show something else.
```

3.8 Figures

Figure 2 shows something interesting.



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

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
702 \Cref{fig:label} shows something interesting.
703
704 \begin{figure}
705   \centering
706   \includegraphics[width=.8\linewidth]{example-image-
       ↪ golden}
707   \caption[Simple Figure]{
708     Simple Figure.
709     Based on \citet{mwe}.
710   }
711   \label{fig:label}
712 \end{figure}
```

One can also have pictures floating inside text:

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.

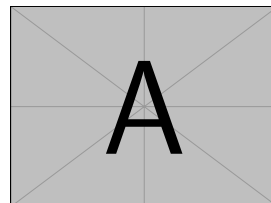


Fig. 3: A floating figure

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

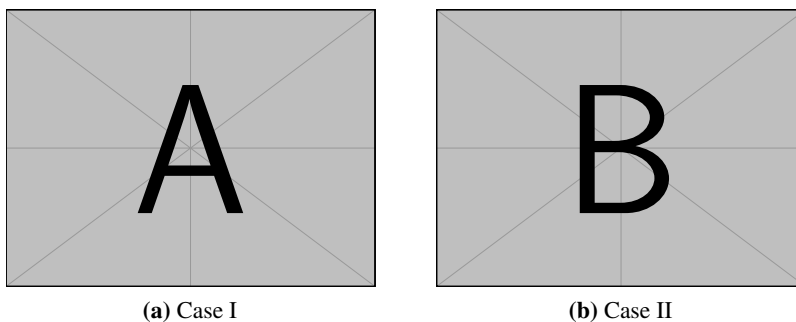
```

719 \begin{floatingfigure}{.33\linewidth}
720   \includegraphics[width=.29\linewidth]{example-image-a}
721   \caption{A floating figure}
722 \end{floatingfigure}
723 \lipsum[2]

```

3.9 Sub Figures

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



(a) Case I

(b) Case II

Fig. 4: Example figure with two sub figures.

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

731 \begin{figure}[!b]
732   \centering
733   \subfloat[Case I]{\includegraphics[width=.4]
      ↪ \linewidth}{example-image-a}%
734   \label{fig:first_case}}
735   \hfil
736   \subfloat[Case II]{\includegraphics[width=.4]
      ↪ \linewidth}{example-image-b}%
737   \label{fig:second_case}}
738   \caption{Example figure with two sub figures.}
739   \label{fig:two_sub_figures}
740 \end{figure}

```

3.10 Tables

Table 2: Simple Table

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

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

746 \begin{table}
747   \caption{Simple Table}
748   \label{tab:simple}
749   \centering
750   \begin{tabular}{ll}
751     \toprule
752     Heading1 & Heading2 \\
753     \midrule
754     One      & Two      \\
755     Thee     & Four     \\
756     \bottomrule
757   \end{tabular}
758 \end{table}

```

Table 3: Table with diagonal line

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

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```
762 % Source: https://tex.stackexchange.com/a/468994/9075
763 \begin{table}
764   \caption{Table with diagonal line}
765   \label{tab:diag}
766   \begin{center}
767     \begin{tabular}{|l|c|c|}
768       \hline
769       \diagbox[width=10em]{Diag \Column Head I}{Diag
770         \Column\Head II} & Second & Third \\
771       \hline
772       & foo & bar \\
773       \hline
774     \end{tabular}
775   \end{center}
776 \end{table}
```

3.11 Source Code

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

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

```
1
2
3 notinteresting
4
```

List. 1: Example XML listing using minted

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

785 \Cref{lst:XML} shows source code written in XML.
786 \refline{line:comment} contains a comment.
787
788 \begin{listing}[htbp]
789   \begin{minted}[linenos=true,escapeinside=||]{xml}
790   <listing name="example">
791     <!-- comment --> |\labelline{line:comment}|
792     <content>not interesting</content>
793   </listing>
794 \end{minted}
795   \caption{Example XML listing using minted}
796   \label{lst:XML}
797 \end{listing}

```

One can also typeset JSON as shown in Listing 2.

```

1
2
3

```

List. 2: Example JSON listing using minted

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

803 \begin{listing}[htbp]
804   \begin{minted}[linenos=true,escapeinside=||]{json}
805   {
806     key: "value"
807   }
808 \end{minted}
809   \caption{Example JSON listing using minted}
810   \label{lst:f1JSON}
811 \end{listing}

```

Java is also possible as shown in Listing 3.

```

1
2
3
4
5

```

List. 3: Java code rendered using minted

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

817 \begin{listing}[htbp]
818   \begin{minted}[linenos=true,escapeinside=||]{java}
819   public class Hello {
820       public static void main (String[] args) {
821           System.out.println("Hello World!");
822       }
823   }
824 \end{minted}
825 \caption{Java code rendered using minted}
826 \label{lst:flJava}
827 \end{listing}

```

3.12 Itemization

One can list items as follows:

- Item One
- Item Two

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

835 \begin{itemize}
836   \item Item One
837   \item Item Two
838 \end{itemize}

```

One can enumerate items as follows:

1. Item One
2. Item Two

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

845 \begin{enumerate}
846   \item Item One
847   \item Item Two
848 \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^AT_EX code of ./paper-minted-newtx.tex

```

855 \begin{inparaenum}
856   \item All these items...
857   \item ...appear in one line
858   \item This is enabled by the paralist package.
859 \end{inparaenum}

```

3.13 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-minted-newtx.tex

```

865 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^AT_EX code of ./paper-minted-newtx.tex

```

869 The symbol for powerset is now correct:  $\wp$  and
    ↪ not a Weierstrass  $p$  ( $\wp$ ).
870
871  $\wp(\{1, 2, 3\})$ 

```

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

Corresponding L^AT_EX code of ./paper-minted-newtx.tex

```

875 Brackets work as designed:
876 <test>
877 One can also input backticks 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 2nd 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

1. Binz, T., Breiter, G., Leymann, F., Spatzier, T.: Portable Cloud Services Using TOSCA. IEEE Internet Computing **16**(03), 80–85 (May 2012), ISSN 1089-7801, <https://doi.org/10.1109/mic.2012.43>
2. Kopp, O., et al.: Winery – A Modeling Tool for TOSCA-based Cloud Applications. In: Proceedings of 11th International Conference on Service-Oriented Computing (ICSOC’13), LNCS, vol. 8274, pp. 700–704, Springer Berlin Heidelberg (2013), https://doi.org/10.1007/978-3-642-45005-1_64
3. Scharrer, M.: The mwe Package (2017), URL <http://texdoc.net/mwe>
4. Veytsman, B.: Latex class for the association for computing machinery – acknowledgement information (Aug 2021), URL <https://github.com/borisveytsman/acmart/blob/1704c8bf7eee92a1515ff755f5118b6a22bb1f8e/samples/samples.dtx#L709>

All links were last followed on October 5, 2020.