Paper Title

Firstname Lastname and Firstname Lastname

Institute

Abstract. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer 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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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 LaTeX code of ./paper-minted-newtx.tex

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

585  \begin{mindflow}
586  This is a small note.
587  \end{mindflow}
```

3.3   Handling TODOs

Markierter Text.

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

593  \textmarker{Markierter Text.}
```

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

Markierter Text.

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 599  \textcomment{Markierter Text.}{Kommentar dazu.}
> ```

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

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 603  \modified{Manuelle Markierung für Text, der seit der letzten
>      ↪  Version geändert wurde.}
> ```

Das ist ein Text. Geänderter Text.

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 607  Das ist ein Text.
> 608  \change{FL1: Text angepasst}{Geänderter Text}.
> ```

Hier nur ein Kommentar.

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 612  Hier nur ein Kommentar\sidecomment{Kommentar}.
> ```

TODO!

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 616  \todo{Hier muss noch kräftig Text produziert werden}
> ```

3.4 Hyphenation

LaTeX 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.

```
627  In case you write \enquote{application-specific}, then the
     ↪   word will only be hyphenated at the dash.
628  You can also write \verb1applica\allowbreak{}tion-specific1
     ↪   (result: applica\allowbreak{}tion-specific), but this is
     ↪   much more effort.
629
630  You can now write words containing hyphens which are
     ↪   hyphenated at other places in the word.
631  For instance, \verb1application"=specific1 gets
     ↪   application"=specific.
632  This is enabled by an additional configuration of the babel
     ↪   package.
```

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

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): $100\frac{km}{h}$.

```
638  Numbers can be written plain text (such as 100), by using the
     ↪   \href{https://ctan.org/pkg/siunitx}{siunitx} package as
     ↪   follows:
639  \SI{100}{\km\per\hour},
640  or by using plain \LaTeX{} (and math mode):
641  $100 \frac{\mathit{km}}{h}$.
```

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

$5\,\%$ of $10\,\text{kg}$

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

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

Numbers are automatically grouped: $123\,456$.

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

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

3.6 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`
>
> ```
> 655  Please use the \enquote{enquote command} to quote something.
> 656  Quoting with "`quote"' or ``quote'' also works.
> 657
> ```

3.7   Cleveref examples

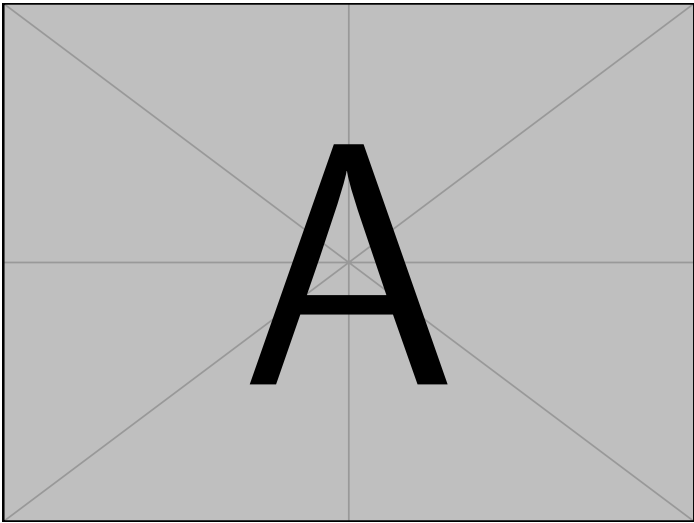Cleveref demonstration: Cref at beginning of sentence, cref in all other cases.

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

687   \Cref{fig:ex:cref} shows a simple fact, although
  ↪      \cref{fig:ex:cref} could also show something else.
688
689   \Cref{tab:ex:cref} shows a simple fact, although
  ↪      \cref{tab:ex:cref} could also show something else.
690
691   \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 LaTeX code of `./paper-minted-newtx.tex`

```
697  \Cref{fig:label} shows something interesting.
698
699  \begin{figure}
700      \centering
701      \includegraphics[width=.8\linewidth]{example-image-golden}
702      \caption[Simple Figure]{
703          Simple Figure.
704          Based on \citet{mwe}.
705      }
706      \label{fig:label}
707  \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.
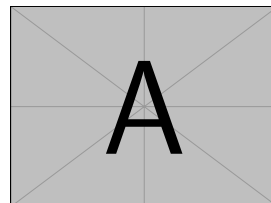
Fig. 3: A floating figure

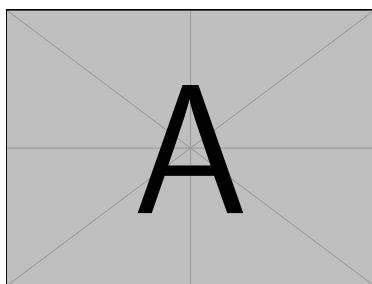Corresponding LaTeX code of `./paper-minted-newtx.tex`

```
714  \begin{floatingfigure}{.33\linewidth}
715    \includegraphics[width=.29\linewidth]{example-image-a}
716    \caption{A floating figure}
717  \end{floatingfigure}
718  \lipsum[2]
```
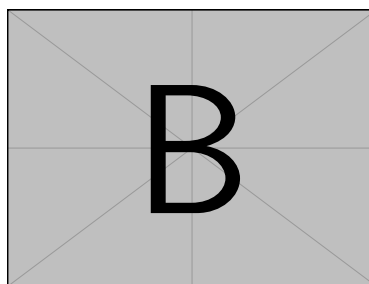
3.9 Sub Figures

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

```latex
726  \begin{figure}[!b]
727    \centering
728    \subfloat[Case I]{\includegraphics[width=.4\linewidth]{
     ↪  example-image-a}%
729      \label{fig:first_case}}
730    \hfil
731    \subfloat[Case II]{\includegraphics[width=.4\linewidth]{
     ↪  example-image-b}%
732      \label{fig:second_case}}
733    \caption{Example figure with two sub figures.}
734    \label{fig:two_sub_figures}
735  \end{figure}
```

3.10 Tables

Table 2: Simple Table

Heading1	Heading2
One	Two
Thee	Four

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

```latex
741  \begin{table}
742    \caption{Simple Table}
743    \label{tab:simple}
744    \centering
745    \begin{tabular}{ll}
746      \toprule
747      Heading1 & Heading2 \\
748      \midrule
749      One      & Two       \\
750      Thee     & Four      \\
751      \bottomrule
752    \end{tabular}
753  \end{table}
```

Table 3: Table with diagonal line

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

Corresponding LATEX code of `./paper-minted-newtx.tex`

```
757  % Source: https://tex.stackexchange.com/a/468994/9075
758  \begin{table}
759    \caption{Table with diagonal line}
760    \label{tab:diag}
761    \begin{center}
762      \begin{tabular}{|l|c|c|}
763        \hline
764        \diagbox[width=10em]{Diag \\Column Head I}{Diag
             Column\\Head II} & Second & Third \\
765        \hline
766         & foo & bar                    \\
767        \hline
768      \end{tabular}
769    \end{center}
770  \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 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 LaTeX code of `./paper-minted-newtx.tex`

```
780  \Cref{lst:XML} shows source code written in XML.
781  \refline{line:comment} contains a comment.
782
783  \begin{listing}[htbp]
784    \begin{minted}[linenos=true,escapeinside=||]{xml}
785  <listing name="example">
786    <!-- comment --> |\labelline{line:comment}|
787    <content>not interesting</content>
788  </listing>
789  \end{minted}
790    \caption{Example XML listing using minted}
791    \label{lst:XML}
792  \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 LaTeX code of `./paper-minted-newtx.tex`

```
798  \begin{listing}[htbp]
799    \begin{minted}[linenos=true,escapeinside=||]{json}
800  {
801    key: "value"
802  }
803  \end{minted}
804    \caption{Example JSON listing using minted}
805    \label{lst:flJSON}
806  \end{listing}
```

Java is also possible as shown in Listing 3.

```
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 LATEX code of `./paper-minted-newtx.tex`**
>
> ```
> 812  \begin{listing}[htbp]
> 813    \begin{minted}[linenos=true,escapeinside=||]{java}
> 814  public class Hello {
> 815      public static void main (String[] args) {
> 816          System.out.println("Hello World!");
> 817      }
> 818  }
> 819  \end{minted}
> 820    \caption{Java code rendered using minted}
> 821    \label{lst:flJava}
> 822  \end{listing}
> ```

3.12 Itemization

One can list items as follows:

– Item One
– Item Two

> **Corresponding LATEX code of `./paper-minted-newtx.tex`**
>
> ```
> 830  \begin{itemize}
> 831    \item Item One
> 832    \item Item Two
> 833  \end{itemize}
> ```

One can enumerate items as follows:

1. Item One
2. Item Two

> **Corresponding LATEX code of `./paper-minted-newtx.tex`**
>
> ```
> 840  \begin{enumerate}
> 841    \item Item One
> 842    \item Item Two
> 843  \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 LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 850  \begin{inparaenum}
> 851    \item All these items...
> 852    \item ...appear in one line
> 853    \item This is enabled by the paralist package.
> 854  \end{inparaenum}
> ```

3.13   Other Features

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

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 860  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 LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 864  The symbol for powerset is now correct: $\powerset$ and not a
>   ↪   Weierstrass p ($\wp$).
> 865
> 866  $\powerset({1,2,3})$
> ```

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

> **Corresponding LaTeX code of `./paper-minted-newtx.tex`**
>
> ```
> 870  Brackets work as designed:
> 871  <test>
> 872  One can also input backticks in verbatim text: \verb|`test`|.
> ```

4   Conclusion and Outlook

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

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

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All links were last followed on October 5, 2020.