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 et mollam 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.tex

577  One sentence per line.
578  This rule is important for the usage of version control
       ↪  systems.
579  A new line is generated with a blank line.
580  As you would do in Word:
581  New paragraphs are generated by pressing enter.
582  In LaTeX, this does not lead to a new paragraph as LaTeX joins
       ↪  subsequent lines.
583  In case you want a new paragraph, just press enter twice!
584  This leads to an empty line.
585  In word, there is the functionality to press shift and enter.
586  This leads to a hard line break.
587  The text starts at the beginning of a new line.
588  In LaTeX, you can do that by using two backslashes
       ↪  (\textbackslash\textbackslash).
589  \\
590  This is rarely used.
591
592  Please do \textit{not} use two backslashes for new paragraphs.
593  For instance, this sentence belongs to the same paragraph,
       ↪  whereas the last one started a new one.
594  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 LATEX code of ./paper-minted.tex

602  \begin{mindflow}
603  This is a small note.
604  \end{mindflow}
```

3.3   Handling TODOs

Markierter Text.

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

610  \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.tex
>
> 616 \textcomment{Markierter Text.}{Kommentar dazu.}

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

> Corresponding LATEX code of ./paper-minted.tex
>
> 620 \modified{Manuelle Markierung für Text, der seit der letzten
>   ↪ Version geändert wurde.}

Das ist ein Text. Geänderter Text.

> Corresponding LATEX code of ./paper-minted.tex
>
> 624 Das ist ein Text.
> 625 \change{FL1: Text angepasst}{Geänderter Text}.

Hier nur ein Kommentar.

> Corresponding LATEX code of ./paper-minted.tex
>
> 629 Hier nur ein Kommentar\sidecomment{Kommentar}.

TODO!

> Corresponding LATEX code of ./paper-minted.tex
>
> 633 \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: 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 LaTeX code of `./paper-minted.tex`
>
> ```
> 644  In case you write \enquote{application-specific}, then the
>      ↪  word will only be hyphenated at the dash.
> 645  You can also write \verb1applica\allowbreak{}tion-specific1
>      ↪  (result: applica\allowbreak{}tion-specific), but this is
>      ↪  much more effort.
> 646
> 647  You can now write words containing hyphens which are
>      ↪  hyphenated at other places in the word.
> 648  For instance, \verb1application"=specific1 gets
>      ↪  application"=specific.
> 649  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: $100\,\frac{\mathrm{km}}{\mathrm{h}}$, or by using plain LaTeX (and math mode): $100\frac{km}{h}$.

> Corresponding LaTeX code of `./paper-minted.tex`
>
> ```
> 655  Numbers can be written plain text (such as 100), by using the
>      ↪  \href{https://ctan.org/pkg/siunitx}{siunitx} package as
>      ↪  follows:
> 656  \SI{100}{\km\per\hour},
> 657  or by using plain \LaTeX{} (and math mode):
> 658  $100 \frac{\mathit{km}}{h}$.
> ```

5 % of 10 kg

> Corresponding LaTeX code of `./paper-minted.tex`
>
> ```
> 662  \SI{5}{\percent} of \SI{10}{kg}
> ```

Numbers are automatically grouped: 123 456.

> Corresponding LaTeX code of `./paper-minted.tex`
>
> ```
> 666  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 LaTeX code of `./paper-minted.tex`**
>
> ```
> 672  Please use the \enquote{enquote command} to quote something.
> 673  Quoting with "`quote"' or ``quote'' also works.
> 674
> ```

3.7 Cleveref examples

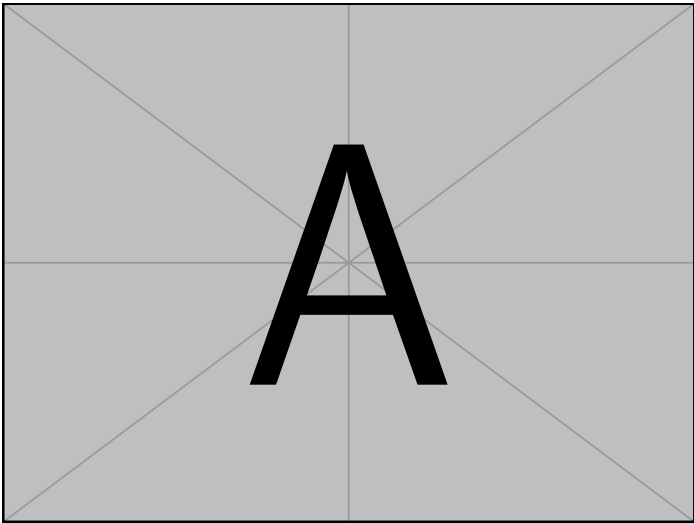Cleveref demonstration: Cref at beginning of sentence, cref in all other cases.

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.tex

704  \Cref{fig:ex:cref} shows a simple fact, although
 ↪    \cref{fig:ex:cref} could also show something else.
705
706  \Cref{tab:ex:cref} shows a simple fact, although
 ↪    \cref{tab:ex:cref} could also show something else.
707
708  \Cref{sec:ex:cref} shows a simple fact, although
 ↪    \cref{sec:ex:cref} could also show something else.
```

3.8 Figures
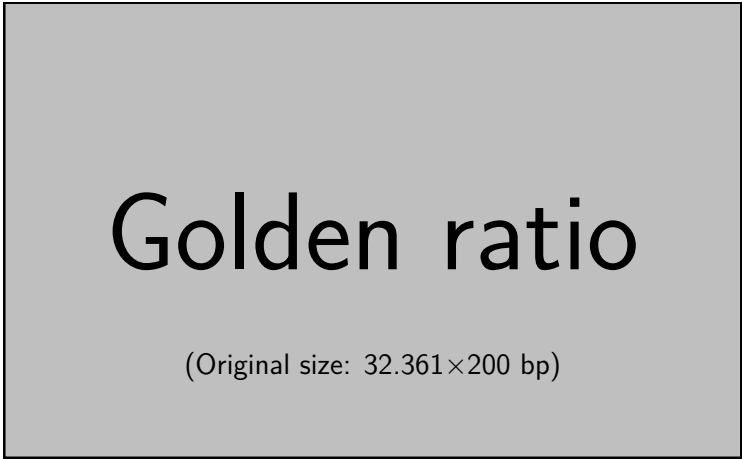
Figure 2 shows something interesting.

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

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

```
714  \Cref{fig:label} shows something interesting.
715
716  \begin{figure}
717    \centering
718    \includegraphics[width=.8\linewidth]{example-image-golden}
719    \caption[Simple Figure]{
720      Simple Figure.
721      Based on \citet{mwe}.
722    }
723    \label{fig:label}
724  \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.
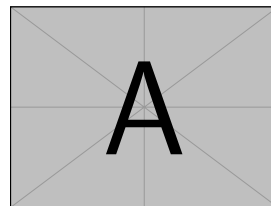

Fig. 3: A floating figure

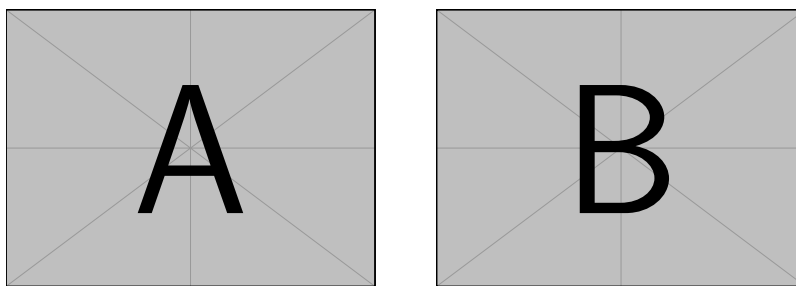Corresponding LaTeX code of `./paper-minted.tex`

```
731  \begin{floatingfigure}{.33\linewidth}
732    \includegraphics[width=.29\linewidth]{example-image-a}
733    \caption{A floating figure}
734  \end{floatingfigure}
735  \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.tex`

```latex
743  \begin{figure}[!b]
744    \centering
745    \subfloat[Case I]{\includegraphics[width=.4\linewidth]{⌋
       ↪  example-image-a}%
746      \label{fig:first_case}}
747    \hfil
748    \subfloat[Case II]{\includegraphics[width=.4\linewidth]{⌋
       ↪  example-image-b}%
749      \label{fig:second_case}}
750    \caption{Example figure with two sub figures.}
751    \label{fig:two_sub_figures}
752  \end{figure}
```

3.10 Tables

Table 2: Simple Table

Heading1	Heading2
One	Two
Thee	Four

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

```latex
758  \begin{table}
759    \caption{Simple Table}
760    \label{tab:simple}
761    \centering
762    \begin{tabular}{ll}
763      \toprule
764      Heading1 & Heading2 \\
765      \midrule
766      One      & Two       \\
767      Thee     & Four      \\
768      \bottomrule
769    \end{tabular}
770  \end{table}
```

Table 3: Table with diagonal line

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

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

```
774  % Source: https://tex.stackexchange.com/a/468994/9075
775  \begin{table}
776    \caption{Table with diagonal line}
777    \label{tab:diag}
778    \begin{center}
779      \begin{tabular}{|l|c|c|}
780        \hline
781        \diagbox[width=10em]{Diag \\Column Head I}{Diag
          ↪  Column\\Head II} & Second & Third \\
782        \hline
783         & foo & bar                    \\
784        \hline
785      \end{tabular}
786    \end{center}
787  \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 LATEX code of `./paper-minted.tex`

```
797  \Cref{lst:XML} shows source code written in XML.
798  \refline{line:comment} contains a comment.
799
800  \begin{listing}[htbp]
801    \begin{minted}[linenos=true,escapeinside=||]{xml}
802  <listing name="example">
803    <!-- comment --> |\labelline{line:comment}|
804    <content>not interesting</content>
805  </listing>
806  \end{minted}
807    \caption{Example XML listing using minted}
808    \label{lst:XML}
809  \end{listing}
```

One can also typeset JSON as shown in Listing 2.

```
1
2
3
```

List. 2: Example JSON listing using minted

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

```
815  \begin{listing}[htbp]
816    \begin{minted}[linenos=true,escapeinside=||]{json}
817  {
818    key: "value"
819  }
820  \end{minted}
821    \caption{Example JSON listing using minted}
822    \label{lst:flJSON}
823  \end{listing}
```

Java is also possible as shown in Listing 3.

```
1
2
3
4
5
```

List. 3: Java code rendered using minted

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

```
829  \begin{listing}[htbp]
830    \begin{minted}[linenos=true,escapeinside=||]{java}
831  public class Hello {
832      public static void main (String[] args) {
833          System.out.println("Hello World!");
834      }
835  }
836  \end{minted}
837    \caption{Java code rendered using minted}
838    \label{lst:flJava}
839  \end{listing}
```

3.12 Itemization

One can list items as follows:

- Item One
- Item Two

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

```
847  \begin{itemize}
848    \item Item One
849    \item Item Two
850  \end{itemize}
```

One can enumerate items as follows:

1. Item One
2. Item Two

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

```
857  \begin{enumerate}
858    \item Item One
859    \item Item Two
860  \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.tex`**
>
> ```
> 867  \begin{inparaenum}
> 868    \item All these items...
> 869    \item ...appear in one line
> 870    \item This is enabled by the paralist package.
> 871  \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.tex`**
>
> ```
> 877  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.tex`**
>
> ```
> 881  The symbol for powerset is now correct: $\powerset$ and not a
>   ↪   Weierstrass p ($\wp$).
> 882
> 883  $\powerset({1,2,3})$
> ```

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

> **Corresponding LaTeX code of `./paper-minted.tex`**
>
> ```
> 887  Brackets work as designed:
> 888  <test>
> 889  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.