Paper Title

Firstname Lastname and Firstname Lastname

Institute

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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. 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 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`

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

3.2 Hyphenation

LaTeX automatically hyphenates words. When using microtype, there should be less hypnetations 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`

```
446  In case you write \enquote{application-specific}, then the
  ↪   word will only be hyphenated at the dash.
447  You can also write \verb1applica\allowbreak{}tion-specific1
  ↪   (result: applica\allowbreak{}tion-specific), but this is
  ↪   much more effort.
448
449  You can now write words containing hyphens which are
  ↪   hyphenated at other places in the word.
450  For instance, \verb1application"=specific1 gets
  ↪   application"=specific.
451  This is enabled by an additional configuration of the babel
  ↪   package.
```

3.3   Typesetting Units

Numbers can written plain text (such as 100), by using the siunitx package like that: $100\,\frac{\mathrm{km}}{\mathrm{h}}$, or by using plain LATEX (and math mode): $100\frac{km}{h}$.

Corresponding LATEX code of `paper-minted.tex`

```
457  Numbers can written plain text (such as 100), by using the
  ↪   siunitx package like that:
458  \SI{100}{\km\per\hour},
459  or by using plain \LaTeX{} (and math mode):
460  $100 \frac{\mathit{km}}{h}$.
```

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

Corresponding LATEX code of `paper-minted.tex`

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

Numbers are automatically grouped: 123 456.

Corresponding LATEX code of `paper-minted.tex`

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

3.4   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`
>
> ```
> 474   Please use the \enquote{enquote command} to quote something.
> 475   Quoting with "`quote"' or ``quote'' also works.
> 476
> ```

3.5   Cleveref examples

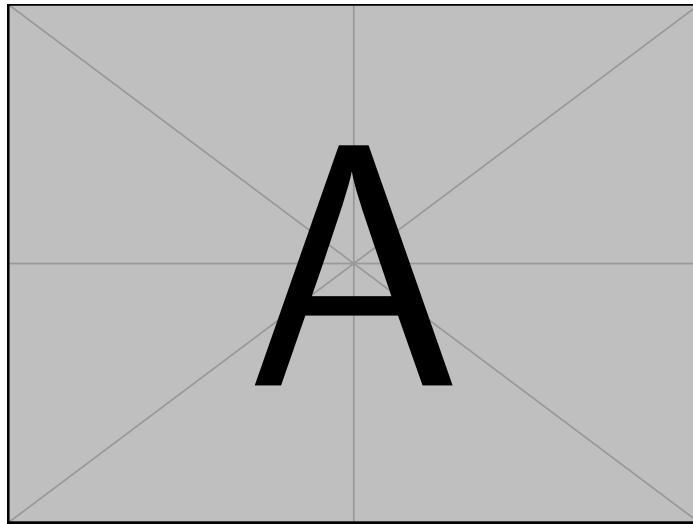Cleveref demonstration: Cref at beginning of sentence, cref in all other cases.

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 3.5 shows a simple fact, although Sect. 3.5 could also show something else.

Corresponding LATEX code of `paper-minted.tex`

```
505  \Cref{fig:ex:cref} shows a simple fact, although
↪      \cref{fig:ex:cref} could also show something else.
506
507  \Cref{tab:ex:cref} shows a simple fact, although
↪      \cref{tab:ex:cref} could also show something else.
508
509  \Cref{sec:ex:cref} shows a simple fact, although
↪      \cref{sec:ex:cref} could also show something else.
```

3.6   Figures

Figure 2 shows something interesting.

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

Corresponding LATEX code of `paper-minted.tex`

```
514  \Cref{fig:label} shows something interesting.
515
516  \begin{figure}
517    \centering
518    \includegraphics[width=.8\linewidth]{example-image-golden}
519    \caption[Simple Figure]{Simple Figure. Based on
↪      \citet{mwe}.}
520    \label{fig:label}
521  \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.
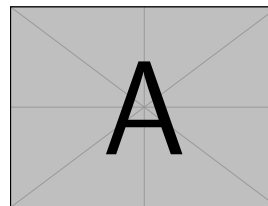

Fig. 3: A floating figure

$\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$. 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. $\mathrm{d}\Omega = \sin\vartheta \mathrm{d}\vartheta \mathrm{d}\varphi$. 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 LaTeX code of `paper-minted.tex`
>
> ```
> 528  \begin{floatingfigure}{.33\linewidth}
> 529  \includegraphics[width=.29\linewidth]{example-image-a}
> 530  \caption{A floating figure}
> 531  \end{floatingfigure}
> 532  \blindtext[2]
> ```

3.7   Sub Figures

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

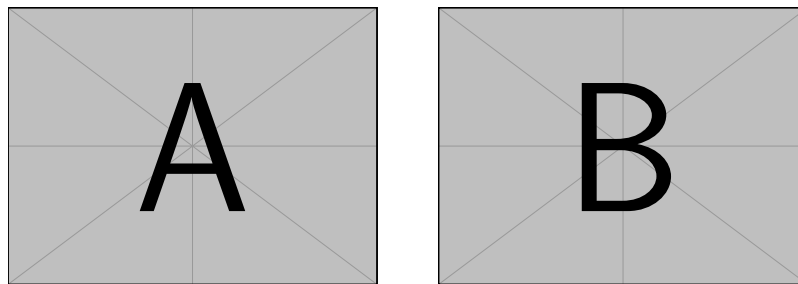Corresponding LaTeX code of `paper-minted.tex`

```
542  \begin{figure}[!b]
543      \centering
544      \subfloat[Case
     →   I]{\includegraphics[width=.4\linewidth]{example-image-a}%
545      \label{fig:first_case}}
546    \hfil
547      \subfloat[Case
     →   II]{\includegraphics[width=.4\linewidth]{example-image-b}%
548      \label{fig:second_case}}
549    \caption{Example figure with two sub figures.}
550    \label{fig:two_sub_figures}
551  \end{figure}
```

3.8   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 LATEX code of `paper-minted.tex`

```
557  \begin{table}
558    \caption{Simple Table}
559    \label{tab:simple}
560    \centering
561    \begin{tabular}{ll}
562      \toprule
563      Heading1 & Heading2 \\
564      \midrule
565      One      & Two       \\
566      Thee     & Four      \\
567      \bottomrule
568    \end{tabular}
569  \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`

```
573  % Source: https://tex.stackexchange.com/a/468994/9075
574  \begin{table}
575  \caption{Table with diagonal line}
576  \label{tab:diag}
577  \begin{center}
578  \begin{tabular}{|l|c|c|}
579  \hline
580  \diagbox[width=10em]{Diag\\Column Head I}{Diag Column\\Head
     ↪  II} & Second & Third \\
581  \hline
582  & foo & bar \\
583  \hline
584  \end{tabular}
585  \end{center}
586  \end{table}
```

3.9   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.

```xml
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.tex`

```latex
596  \Cref{lst:XML} shows source code written in XML.
597  \refline{line:comment} contains a comment.
598
599  \begin{listing}[htbp]
600      \begin{minted}[linenos=true,escapeinside=||]{xml}
601  <listing name="example">
602    <!-- comment --> |\labelline{line:comment}|
603    <content>not interesting</content>
604  </listing>
605  \end{minted}
606    \caption{Example XML listing using minted}
607    \label{lst:XML}
608  \end{listing}
```

One can also typeset JSON as shown in Listing 2.

```json
1  {
2    key: "value"
3  }
```

List. 2: Example JSON listing using minted

Corresponding LaTeX code of `paper-minted.tex`

```
614  \begin{listing}[htbp]
615      \begin{minted}[linenos=true,escapeinside=||]{json}
616  {
617    key: "value"
618  }
619  \end{minted}
620    \caption{Example JSON listing using minted}
621    \label{lst:flJSON}
622  \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 LaTeX code of `paper-minted.tex`

```
628  \begin{listing}[htbp]
629      \begin{minted}[linenos=true,escapeinside=||]{java}
630  public class Hello {
631      public static void main (String[] args) {
632          System.out.println("Hello World!");
633      }
634  }
635  \end{minted}
636    \caption{Java code rendered using minted}
637    \label{lst:java}
638  \end{listing}
```

3.10   Itemization

One can list items as follows:

– Item One
– Item Two

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

646   \begin{itemize}
647   \item Item One
648   \item Item Two
649   \end{itemize}
```

One can enumerate items as follows:

1. Item One
2. Item Two

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

656   \begin{enumerate}
657     \item Item One
658     \item Item Two
659   \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 LaTeX code of paper-minted.tex

666   \begin{inparaenum}
667     \item All these items...
668     \item ...appear in one line
669     \item This is enabled by the paralist package.
670   \end{inparaenum}
```

3.11   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

676   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`
>
> ```
> 680   The symbol for powerset is now correct: $\powerset$ and not a
>    ↪   Weierstrass p ($\wp$).
> 681
> 682   $\powerset({1,2,3})$
> ```

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

> Corresponding LATEX code of `paper-minted.tex`
>
> ```
> 686   Brackets work as designed:
> 687   <test>
> 688   One can also input backquotes in verbatim text:
>    ↪   \verb|`test`|.
> ```

4   Conclusion and Outlook

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