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. Donet 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.tex`

```
497  One sentence per line.
498  This rule is important for the usage of version control systems.
499  A new line is generated with a blank line.
500  As you would do in Word:
501  New paragraphs are generated by pressing enter.
502  In LaTeX, this does not lead to a new paragraph as LaTeX joins
         subsequent lines.
503  In case you want a new paragraph, just press enter twice (!).
504  This leads to an empty line.
505  In word, there is the functionality to press shift and enter.
506  This leads to a hard line break.
507  The text starts at the beginning of a new line.
508  In LaTeX, you can do that by using two backslashes
         (\textbackslash\textbackslash).\\
509  This is rarely used.
510
511  Please do \textit{not} use two backslashes for new paragraphs.
512  For instance, this sentence belongs to the same paragraph,
         whereas the last one started a new one.
513  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.tex`

```
521  \begin{mindflow}
522  This is a small note.
523  \end{mindflow}
```

3.3   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.tex`**
>
> ```
> 534  In case you write \enquote{application-specific}, then the word
>          will only be hyphenated at the dash.
> 535  You can also write \verb1applica\allowbreak{}tion-specific1
>          (result: applica\allowbreak{}tion-specific), but this is
>          much more effort.
> 536
> 537  You can now write words containing hyphens which are hyphenated
>          at other places in the word.
> 538  For instance, \verb1application"=specific1 gets
>          application"=specific.
> 539  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: $100\,\frac{\mathrm{km}}{\mathrm{h}}$, or by using plain LATEX (and math mode): $100\frac{km}{h}$.

> **Corresponding LATEX code of `paper.tex`**
>
> ```
> 545  Numbers can written plain text (such as 100), by using the
>          siunitx package like that:
> 546  \SI{100}{\km\per\hour},
> 547  or by using plain \LaTeX{} (and math mode):
> 548  $100 \frac{\mathit{km}}{h}$.
> ```

5 % of 10 kg

> **Corresponding LATEX code of `paper.tex`**
>
> ```
> 552  \SI{5}{\percent} of \SI{10}{kg}
> ```

Numbers are automatically grouped: 123 456.

> **Corresponding LATEX code of `paper.tex`**
>
> ```
> 556  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.tex`

```
562  Please use the \enquote{enquote command} to quote something.
563  Quoting with "`quote"' or ``quote'' also works.
```

3.6   Cleveref examples

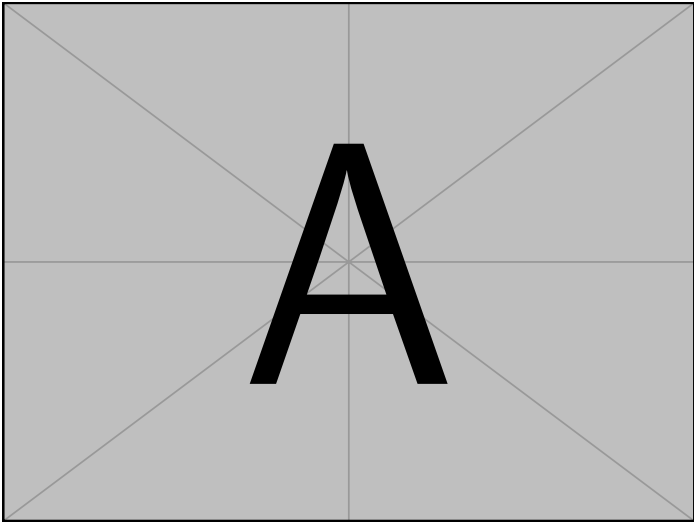Cleveref demonstration: Cref at beginning of sentence, cref in all other cases.

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 LATEX code of `paper.tex`

```
594  \Cref{fig:ex:cref} shows a simple fact, although
         \cref{fig:ex:cref} could also show something else.
595
596  \Cref{tab:ex:cref} shows a simple fact, although
         \cref{tab:ex:cref} could also show something else.
597
598  \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 LATEX code of `paper.tex`

```
604  \Cref{fig:label} shows something interesting.
605
606  \begin{figure}
607    \centering
608    \includegraphics[width=.8\linewidth]{example-image-golden}
609    \caption[Simple Figure]{Simple Figure. Based on \citet{mwe}.}
610    \label{fig:label}
611  \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.
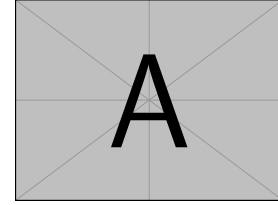

Fig. 3. A floating figure

$\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$. 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.tex`

```
618  \begin{floatingfigure}{.33\linewidth}
619  \includegraphics[width=.29\linewidth]{example-image-a}
620  \caption{A floating figure}
621  \end{floatingfigure}
622  \blindtext[2]
```

3.8 Sub Figures

An example of two sub figures is shown in Fig. 4.
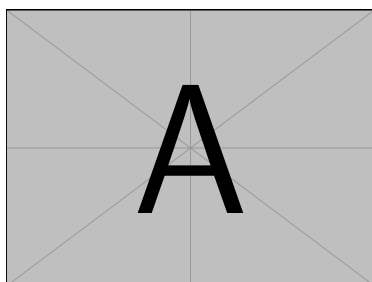
Corresponding LaTeX code of `paper.tex`

```
631  \begin{figure}[!b]
632      \centering
633      \subfloat[Case
             I]{\includegraphics[width=.4\linewidth]{example-image-a}%
634      \label{fig:first_case}}
635    \hfil
636      \subfloat[Case
             II]{\includegraphics[width=.4\linewidth]{example-image-b}%
637      \label{fig:second_case}}
638    \caption{Example figure with two sub figures.}
639    \label{fig:two_sub_figures}
640  \end{figure}
```
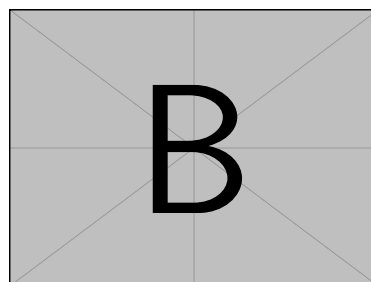
3.9   Tables

Table 2. Simple Table

Heading1	Heading2
One	Two
Thee	Four

(a) Case I   (b) Case II

Fig. 4. Example figure with two sub figures.

```
646   \begin{table}
647     \caption{Simple Table}
648     \label{tab:simple}
649     \centering
650     \begin{tabular}{ll}
651       \toprule
652       Heading1 & Heading2 \\
653       \midrule
654       One      & Two       \\
655       Thee     & Four      \\
656       \bottomrule
657     \end{tabular}
658   \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.tex`

```
662   % Source: https://tex.stackexchange.com/a/468994/9075
663   \begin{table}
664   \caption{Table with diagonal line}
665   \label{tab:diag}
666   \begin{center}
667   \begin{tabular}{|l|c|c|}
668   \hline
669   \diagbox[width=10em]{Diag\\Column Head I}{Diag Column\\Head II}
          & Second & Third \\
670   \hline
671   & foo & bar \\
672   \hline
673   \end{tabular}
674   \end{center}
675   \end{table}
```

```
1  <listing name="example">
2    Floating
3  </listing>
```

Listing 1.2. Example XML listing – placed as floating figure

3.10   Source Code

Listing 1.1 shows source code written in XML. Line 2 contains a comment.

```
1  <listing name="example">
2    <!-- comment -->
3    <content>not interesting</content>
4  </listing>
```

Listing 1.1. Example XML Listing

Corresponding LaTeX code of `paper.tex`

```
682  \Cref{lst:XML} shows source code written in XML.
683  \Cref{line:comment} contains a comment.
684
685  \begin{lstlisting}[
686     language=XML,
687     caption={Example XML Listing},
688     label={lst:XML}]
689  <listing name="example">
690    <!-- comment --> (* \label{line:comment} *)
691    <content>not interesting</content>
692  </listing>
693  \end{lstlisting}
```

One can also add `float` as parameter to have the listing floating. Listing 1.2 shows the floating listing.

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

Listing 1.3. Example JSON listing – placed as floating figure

```
1 public class Hello {
2     public static void main (String[] args) {
3         System.out.println("Hello World!");
4     }
5 }
```

Listing 1.4. Example Java listing

Corresponding LaTeX code of `paper.tex`

```
700 \begin{lstlisting}[
701   % one can adjust spacing here if required
702   % aboveskip=2.5\baselineskip,
703   % belowskip=-.8\baselineskip,
704   float,
705   language=XML,
706   caption={Example XML listing -- placed as floating figure},
707   label={lst:flXML}]
708 <listing name="example">
709   Floating
710 </listing>
711 \end{lstlisting}
```

One can also typeset JSON as shown in Listing 1.3.

Corresponding LaTeX code of `paper.tex`

```
717 \begin{lstlisting}[
718   float,
719   language=json,
720   caption={Example JSON listing -- placed as floating figure},
721   label={lst:json}]
722 {
723   key: "value"
724 }
725 \end{lstlisting}
```

Java is also possible as shown in Listing 1.4.

Corresponding LaTeX code of `paper.tex`

```
731  \begin{lstlisting}[
732    caption={Example Java listing},
733    label=lst:java,
734    language=Java,
735    float]
736  public class Hello {
737      public static void main (String[] args) {
738          System.out.println("Hello World!");
739      }
740  }
741  \end{lstlisting}
```

3.11   Itemization

One can list items as follows:

– Item One
– Item Two

Corresponding LaTeX code of `paper.tex`

```
749  \begin{itemize}
750  \item Item One
751  \item Item Two
752  \end{itemize}
```

One can enumerate items as follows:

1. Item One
2. Item Two

Corresponding LaTeX code of `paper.tex`

```
759  \begin{enumerate}
760    \item Item One
761    \item Item Two
762  \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.tex`**
>
> ```
> 769  \begin{inparaenum}
> 770    \item All these items...
> 771    \item ...appear in one line
> 772    \item This is enabled by the paralist package.
> 773  \end{inparaenum}
> ```

3.12 Other Features

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

> **Corresponding LaTeX code of `paper.tex`**
>
> ```
> 779  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.tex`**
>
> ```
> 783  The symbol for powerset is now correct: $\powerset$ and not a
>          Weierstrass p ($\wp$).
> 784
> 785  $\powerset({1,2,3})$
> ```

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

> **Corresponding LaTeX code of `paper.tex`**
>
> ```
> 789  Brackets work as designed:
> 790  <test>
> 791  One can also input backquotes 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.

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All links were last followed on October 5, 2020.