

# 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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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 t 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 L<sup>A</sup>T<sub>E</sub>X (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<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

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

```

516 \begin{mindflow}
517 This is a small note.
518 \end{mindflow}

```

### 3.3 Hyphenation

L<sup>A</sup>T<sub>E</sub>X automatically hyphenates words. When using microtype, there should be less 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 L<sup>A</sup>T<sub>E</sub>X code of `paper.tex`

```
529 In case you write \enquote{application-specific}, then the word
    will only be hyphenated at the dash.
530 You can also write \verbiapplica\allowbreak{tion-specific}1
    (result: applica\allowbreak{tion-specific}), but this is
    much more effort.
531
532 You can now write words containing hyphens which are hyphenated
    at other places in the word.
533 For instance, \verbiapplication"=specific1 gets
    application"=specific.
534 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:  $100 \frac{\text{km}}{\text{h}}$ , or by using plain L<sup>A</sup>T<sub>E</sub>X (and math mode):  $100 \frac{\textit{km}}{\textit{h}}$ .

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of `paper.tex`

```
540 Numbers can written plain text (such as 100), by using the
    siunitx package like that:
541 \SI{100}{\km\per\hour},
542 or by using plain \LaTeX{} (and math mode):
543 $100 \frac{\mathit{km}}{\textit{h}}$.
```

5 % of 10 kg

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of `paper.tex`

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

Numbers are automatically grouped: 123 456.

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of `paper.tex`

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

### 3.5 Surrounding Text by Quotes

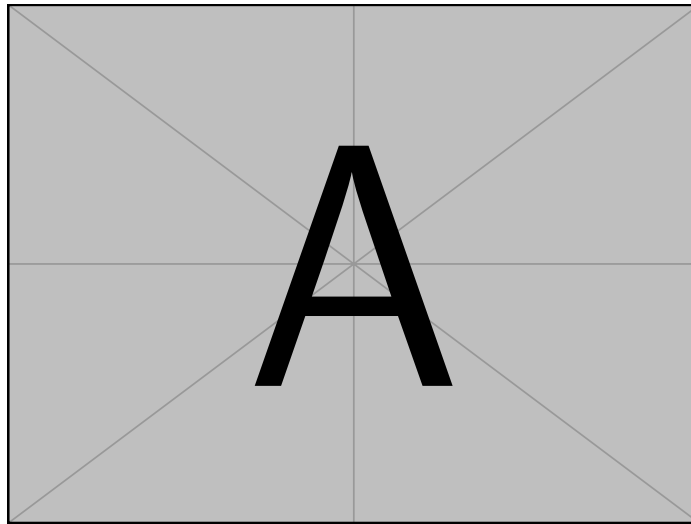
Please use the “enquote command” to quote something. Quoting with “quote” or “quote” also works.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of `paper.tex`

```
557 Please use the \enquote{enquote command} to quote something.
558 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 L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```
589 \Cref{fig:ex:cref} shows a simple fact, although  
    \cref{fig:ex:cref} could also show something else.  
590  
591 \Cref{tab:ex:cref} shows a simple fact, although  
    \cref{tab:ex:cref} could also show something else.  
592  
593 \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.



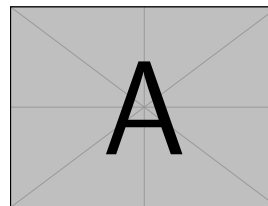
**Fig. 2.** Simple Figure. Based on Scharrer [3].

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```
599 \Cref{fig:label} shows something interesting.  
600  
601 \begin{figure}  
602   \centering  
603   \includegraphics[width=.8\linewidth]{example-image-golden}  
604   \caption[Simple Figure]{Simple Figure. Based on \citet{mwe}.}  
605   \label{fig:label}  
606 \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.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ . 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.  $d\Omega = \sin \vartheta d\vartheta d\varphi$ . 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.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ .



**Fig. 3.** A floating figure

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

613 \begin{floatingfigure}{.33\linewidth}
614 \includegraphics[width=.29\linewidth]{example-image-a}
615 \caption{A floating figure}
616 \end{floatingfigure}
617 \blindtext[2]

```

### 3.8 Sub Figures

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



Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

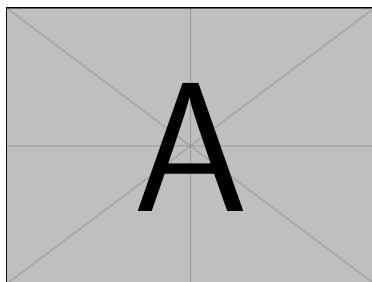
626 \begin{figure}[!b]
627   \centering
628   \subfloat[Case
        I]{\includegraphics[width=.4\linewidth]{example-image-a}%
        \label{fig:first_case}}
629   \hfil
630   \subfloat[Case
        II]{\includegraphics[width=.4\linewidth]{example-image-b}%
        \label{fig:second_case}}
631   \caption{Example figure with two sub figures.}
632   \label{fig:two_sub_figures}
633 \end{figure}

```

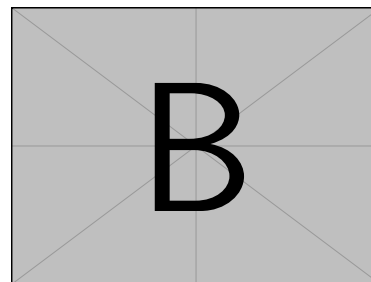
## 3.9 Tables

Table 2. Simple Table

Heading1	Heading2
One	Two
Three	Four



(a) Case I



(b) Case II

Fig. 4. Example figure with two sub figures.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

641 \begin{table}
642   \caption{Simple Table}
643   \label{tab:simple}
644   \centering
645   \begin{tabular}{ll}
646     \toprule
647     Heading1 & Heading2 \\
648     \midrule
649     One      & Two      \\
650     Three   & Four    \\
651     \bottomrule
652   \end{tabular}
653 \end{table}

```

**Table 3.** Table with diagonal line

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

657 % Source: https://tex.stackexchange.com/a/468994/9075
658 \begin{table}
659   \caption{Table with diagonal line}
660   \label{tab:diag}
661   \begin{center}
662     \begin{tabular}{|l|c|c|}
663       \hline
664       \diagbox[width=10em]{Diag\ Column Head I}{Diag Column\ Head II}
665       & Second & Third \\
666       \hline
667       & foo & bar \\
668       \hline
669     \end{tabular}
670   \end{center}
671 \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

```

677 \Cref{lst:XML} shows source code written in XML.
678 \Cref{line:comment} contains a comment.
679
680 \begin{lstlisting}[
681   language=XML,
682   caption={Example XML Listing},
683   label={lst:XML}]
684 <listing name="example">
685   <!-- comment --> (* \label{line:comment} *)
686   <content>not interesting</content>
687 </listing>
688 \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 L<sup>A</sup>T<sub>E</sub>X code of paper.tex

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

One can also typeset JSON as shown in Listing 1.3.

#### Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```
712 \begin{lstlisting}[
713     float,
714     language=json,
715     caption={Example JSON listing -- placed as floating figure},
716     label={lst:json}]
717 {
718     key: "value"
719 }
720 \end{lstlisting}
```

Java is also possible as shown in Listing 1.4.

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

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

```

### 3.11 Itemization

One can list items as follows:

- Item One
- Item Two

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

744 \begin{itemize}
745 \item Item One
746 \item Item Two
747 \end{itemize}

```

One can enumerate items as follows:

1. Item One
2. Item Two

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

754 \begin{enumerate}
755 \item Item One
756 \item Item Two
757 \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<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

764 \begin{inparaenum}
765   \item All these items...
766   \item ...appear in one line
767   \item This is enabled by the paralist package.
768 \end{inparaenum}

```

**3.12 Other Features**

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

774 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<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

778 The symbol for powerset is now correct:  $\wp$  and not a
      Weierstrass p ( $\wp$ ).
779
780  $\wp(\{1,2,3\})$ 

```

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

Corresponding L<sup>A</sup>T<sub>E</sub>X code of paper.tex

```

784 Brackets work as designed:
785 <test>
786 One can also input backquotes 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 2<sup>nd</sup> 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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