Institut für Baumechanik
und Numerische Mechanik

Leibniz
Universität
Hannover

Meaningful Official Title of my Master's Thesis

Master's Thesis

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Ehrenwörtliche Erklärung

Hiermit versichere ich, dass ich die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe und dass die Arbeit in gleicher oder ähnlicher Form noch keiner anderen Prüfungsbehörde vorgelegt wurde.

Hannover, ...

.....
First Name Family Name

Abstract

Insert your abstract here.

Inhaltsverzeichnis

1 Introduction

2 Theory

2.1 Figures

Figures can be inserted as floating objects. They can be arranged in several different ways, dependent on the size and content of the pictures.
The LaTeX code for Fig. 2.1 is

```
\begin{figure}[b]
\includegraphics[width=\linewidth, height=2cm]{empty}
\caption{The usual figure environment. It ...}
\label{fig:1}
\end{figure}
```

Figures should not be inserted without referring to them in the text. Text text . . . see figure 2.2.

Text text . . . as indicated in figure 2.3.
. . . is plotted in figure 2.4 and . . . is given in figure 2.5.

Two small pictures can be located side by side, to avoid plenty of free space. An example is given in figures 2.3 and 2.4.

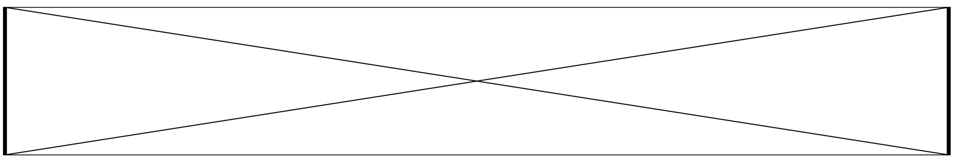


Abbildung 2.1: The usual figure environment. It may be used for figures spanning the whole page width.

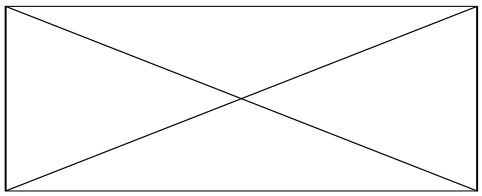


Abbildung 2.2: A figure environment with a caption. Figure and caption are left-tindented.

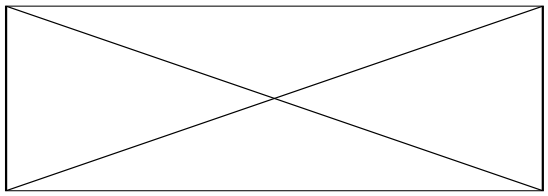


Abbildung 2.3: Two figures side by side with different numbers.

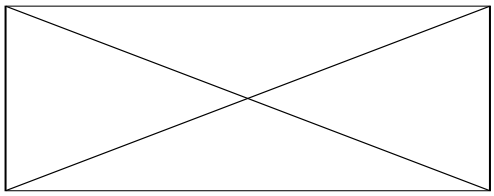


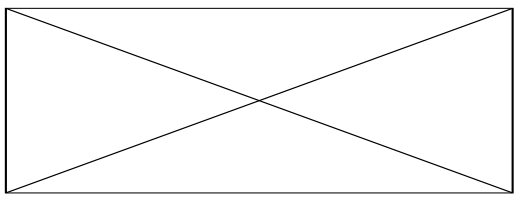
Abbildung 2.4: This is the second picture.

If two pictures belong together, they can be arranged in one `\figure` environment with a joint caption.

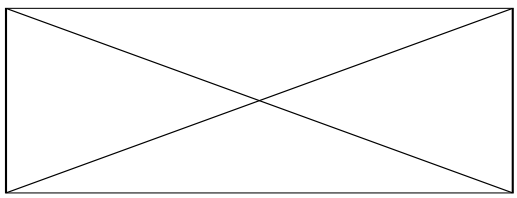
It should be made sure that it is not only referred to every picture in the text, but that every picture is also discussed.
x is plotted against y... The dotted line, the broken line, the solid line ... The limb of the curve ...
The crest, the peak, the trough, rising sharply, ...

2.2 Test of math environments

Equations are always left-aligned. Therefore the option fleqn is used for the documentclass command by default. Note that fleqn does not work with unnumbered displayed equations written as `$$ Ax =b $$`, so please use `\[ Ax=b \]` or an `equation*` or `gather*` environment instead.



a)



b)

Abbildung 2.5: Two figures with one number. The figures are referred to as **a** and **b**.

By default the equations are consecutively numbered. This may be changed by putting the following command inside the preamble

```
\numberwithin{equation}{section}
```

The latex math display environment `\[...\]`

$$\sum_{i=1}^{\infty} \frac{1}{i^2}$$

An equation environment:

$$\sum_{i=1}^{\infty} \frac{1}{i^2} \tag{2.1}$$

For more mathematical commands and environments please refer to the documentation of the $\mathcal{AMS}$ classes. Search the internet, the wikipedia.de TEX–help or consult the book [**?**].

2.3 Literature

Insert references to the relevant literature into the text. Futhermore make sure that all content from any external source is marked as such properly. References or citations can be used at the discretion of the author, as long as they are marked properly.
[**?**]
[**?**]
[**?**]
[**?**]
[**?**]
[**?**]

3 My Developments

3.1 Tables

. . . is given in table 1 . . .

Tabelle 1: this my nice table

left-aligned	right-aligned	centered	user-defined column width
—	mm	mm	of 3 cm!
element	0,289376670	0,289376679	$-9,0 \cdot 10^{-9}$
this item merges 3 columns			
ele	0,28	0,28	automatical line break due to wide item
eleme	0,28	0,28	$-8,0 \cdot 10^{-9}$

4 Implementation

5 Numerical Examples

Matlab code can be embedded like this:

```
% Example Matlab code for calculating hypotenuse
%  c = sqrt(a^2 + b^2)
a = 3;
b = 4;
c = sqrt(a^2+b^2);
```

or like this:

```
% Example Matlab code for calculating hypotenuse
%  c = sqrt(a^2 + b^2)
a = 3;
b = 4;
c = sqrt(a^2+b^2);
```

6 Conclusion

Literatur

[1] G.A. Holzapfel. *Nonlinear Solid Mechanics: A Continuum Approach for Engineering*. John Wiley & Sons Inc, 2000.

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