Latex Knowledgebase

Jonathan Mayer

04.10.2022

1 Examples

1.1 fun math commands

Result	Code
$a = b \quad b = c \qquad d = e$	a = b \quad b = c \qquad d = e
$\vec{x}, \hat{x}, \tilde{x}, \stackrel{!}{=}$	\Vecx, \hatx,\Tilde{x},\ \stackrel{!}{=}
$\alpha, \beta, \dots, \varphi, \partial$	\alpha, \beta, \dots,\varphi, \partial
$\dots, \cdots, \vdots$	\dots, \cdots, \vdots
$\sum\limits_a^b \quad \int\limits_a^b$	\sum \limits _{a} ^ {b} \quad \int \limits_{a} ^ {b}
$\wedge, \vee, \cup, \cap, \leq, \geq, \subset, \supset, \subseteq, \supseteq$	\wedge, \vee, \cup, \cap, \leq, \geq, \subset, \supset, \subseteq, \supseteq
$\in, \forall, \mapsto, \infty, \nabla, \times$	\in, \forall, \mapsto, \infty, \nabla, \times
$\dag$	\dag
$y(x) = \begin{cases} 1 & \text{für } \bm{x > 1} \\ 0 & \text{für } x \leq 1 \end{cases}$	y(x) = \left\{ \begin{aligned} & 1 \quad \text{für } \bm{x>1} & 0 \quad \text{für } x\leq 1 \end{aligned} \right.
$\left(\begin{array}{rrr} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{array} \right)$	\left (\begin{array}{rrr} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \\ \end{array}\right)
$\begin{pmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \end{pmatrix}$	\begin{pmatrix} & & \\ & & \\ \end{pmatrix}

Tabelle 1: fun math commands

~.. umbruchgeschütztes Leerzeichen
\ ... Leerzeichen, \text{...}... Text,\bm{...}... fett,\{... { ,in MathMode
\input{} ... copys the text of a .tex file.
\ \\Leerzeile
$\{(x + y)\}$ hoch 2 ist schöner als $(x + y)$ hoch 2

1.2   Textumbruch und Aufzählungen

Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text

Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text

1. Punkt 1
2. Punkt 2

- Punkt 1
- Punkt 2
a) Punkt 3
b) Punkt 4

Punkt 1 Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text,
Text, Text, Text, Text,

Punkt 2 Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text, Text,
Text, Text, Text, Text,

1.3   urls, Hyperlinks, Verweise und Quellen

Verweis 1.4, oder Gleichung 1.4
Quellenangabe [1] (biblatex: style=nummeric)
Fußnote [1]
Quellenangabe in der Fußzeile (footcite):[2]
Quellenangabe in der Fußzeile (footfullcite):[3]
Url `https://www.overleaf.com/project/633d30db4fb2f816895ee1f8`
Hyperlink Google
Ordner (funktioniert nur in Adobe.)

---

[1]Footnote 1

[2]1.

[3]Nachname1 Vorname1 und Name2 Vorname2. „Example book". EN. In: *Jonnys test diary* 1.1 (2022), S. 100.

1.4 Example Equation

$$y[n] = x[Mn] \tag{1}$$

$$
\begin{aligned}
a &= b \\
&= c \\
&= d
\end{aligned}
$$

1.5 Tabularry example

C1	C2

Tabelle 2: TestTable

1	2	3
1	2	

1.6 Example Figure

Abbildung 1: TestFigure

1.7 Example wrap figure

Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text

Abbildung 2: JKU Logo

Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text Text Text Text Text Text Text

1.8 Minipages

\begin{minipage}[position][height][inner-pos]{width}

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text

Text Text Text Text Text Text Text Text
Text Text Text Text Text Text Text

2 Special tables

tabularray dokumentation

Line 1 Line 2	2 Columns		2 Rows 2 Columns	
	2-2	2-3		
3-1	3-2	3-3	3-4	3-5

Alpha	Beta	Gamma	Delta
Epsilon	Zeta	Eta	Theta
Iota	Kappa	Lambda	Mu
Nu	Xi	Omicron	Pi
Rho	Sigma	Tau	Upsilon

Alpha	Beta	Gamma	Delta
Epsilon	Zeta	Eta	Theta
Iota	Kappa	Lambda	Mu

One	Two	Three
Four	Five	Six
Seven	Eight	Nine

Top Baseline Left Left	Middle Center	Right Right Bottom Baseline

3 more Math stuff

3.1 \begin {matrix}

Matrix centers all values. With a character in front of matrix you can specify if there are brackets:
p... for parentheses
b... for brackets
v... for verts
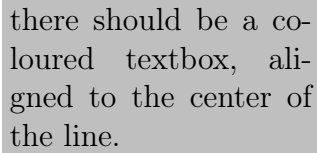B... for braces
V... for double verts.

Example:

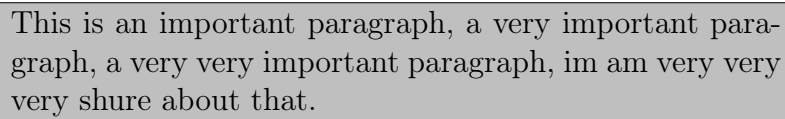$$\begin{pmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \end{pmatrix}$$

Code:

```
\begin{pmatrix}
& & \
& & \
\end{pmatrix}
```
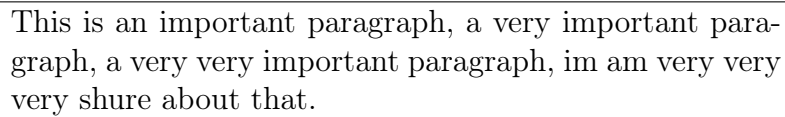
4 Xcolour

xcolor documentation: `https://www.namsu.de/Extra/pakete/Xcolor.html`

there is a coloured box: there should be a coloured textbox, aligned to the center of the line.

There is an important paragraph:

This is an important paragraph, a very important paragraph, a very very important paragraph, im am very very very shure about that.

Only framed is possible with fbox (\usepackage{fbox}):

This is an important paragraph, a very important paragraph, a very very important paragraph, im am very very very shure about that.

Tabellenverzeichnis

Abbildungsverzeichnis

Literatur

[1]   Nachname1 Vorname1 und Name2 Vorname2. „Example book". EN. In: *Jonnys test diary* 1.1 (2022), S. 100.