

**Hochschule Bonn-Rhein-Sieg**University of Applied Sciences



## Title of presentation

Subtitle of presentation

March 26, 2018

First Name

- 1.1 A subsection
- 1.2 Structuring Elements
- 1.3 Numerals and Mathematics
- 1.4 Figures and Code Listings
- 1.5 Citations and Bibliography





#### 1.1 A subsection

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## **Jabberwocky**

Lewis Carroll

'Twas brillig, and the slithy toves Did gyre and gimble in the wabe; All mimsy were the borogoves, And the mome raths outgrabe.

"Beware the Jabberwock, my son! The jaws that bite, the claws that catch! Beware the Jubjub bird, and shun The frumious Bandersnatch!"



## **Lists and locales**

Lorem ipsum dolor sit amet

- Nulla nec lacinia odio.
   Curabitur urna tellus.
  - Fusce id sodales dolor.
     Sed id metus dui.
    - » Cupio virtus licet mi vel feugiat.

- 1. Donec porta, risus porttitor egestas scelerisque video.
  - 1.1 Nunc non ante fringilla, manus potentis cario.
    - 1.1.1 Pellentesque servus morbi tristique.

Nechť již hříšné saxofony ďáblů rozzvučí síň úděsnými tóny waltzu, tanga a quickstepu! Nezvyčajné kŕdle šťastných figliarskych ďatľov učia pri kótovanom ústí Váhu mĺkveho koňa Waldemara obžierať väčšie kusy exkluzívnej kôry. The quick, brown fox jumps over a lazy dog. DJs flock by when MTV ax quiz prog. "Now fax quiz Jack!"





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## **Text blocks**

In plain, example, and alert flavour

This text is highlighted.

## A plain block

This is a plain block containing some highlighted text.

## An example block

This is an example block containing some highlighted text.

### An alert block

This is an alert block containing some highlighted text.





## **Definitions, theorems, and proofs**

All integers divide zero

### Definition

 $\forall a, b \in \mathbb{Z} : a \mid b \iff \exists c \in \mathbb{Z} : a \cdot c = b$ 

### Theorem

 $\forall a \in \mathbb{Z} : a \mid 0$ 

### Proof

 $\forall a \in \mathbb{Z} : 0 = 0$ 





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## **Numerals and Mathematics**

Formulae, equations, and expressions

1234567890 1234567890 
$$\hat{x}, \, \check{x}, \, \tilde{a}, \, \bar{a}, \, \dot{y}, \, \iint f(x,y,z) \, \mathrm{d}x \mathrm{d}y \mathrm{d}z$$

$$\frac{1}{1 + \frac{1}{2 + \frac{1}{3 + x}}} + \frac{1}{1 + \frac{1}{2 + \frac{1}{3 + x}}} \qquad F: \left| \begin{array}{ccc} F''_{xx} & F''_{xy} & F'_{x} \\ F''_{yx} & F''_{yy} & F'_{y} \\ F'_{x} & F'_{y} & 0 \end{array} \right| = 0$$

$$\iint\limits_{\mathbf{x}\in\mathbb{R}^2}\langle\mathbf{x},\mathbf{y}\rangle\,\mathrm{d}\mathbf{x} \qquad \quad \overline{\overline{a}\overline{\alpha}^2+\underline{b}\underline{\beta}+\overline{\overline{d}\overline{\delta}}} \qquad ]0,1[+\lceil x\rfloor-\langle x,y\rangle$$

$$e^x \approx 1 + x + x^2/2! + {n+1 \choose k} = {n \choose k} + {n \choose k-1}$$





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## **Figures**

Tables, graphs, and images

Faculty	With TEX	Total	%
Faculty of Informatics	1716	2904	59.09
Faculty of Science	786	5 275	14.90
Faculty of Economics and Administration	64	4 591	1.39
Faculty of Arts	69	10 000	0.69
Faculty of Medicine	8	2014	0.40
Faculty of Law	15	4824	0.31
Faculty of Education	19	8 2 1 9	0.23
Faculty of Social Studies	12	5 599	0.21
Faculty of Sports Studies	3	2062	0.15

Table 1: The distribution of theses written using TEX during 2010–15 at MU





## **Figures**

Tables, graphs, and images

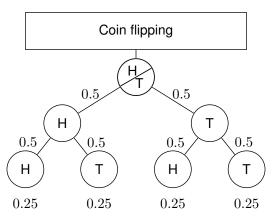


Figure 1: Tree of probabilities – Flipping a coin<sup>1</sup>

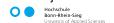




## **Code listings**

An example source code in C

```
#include <stdio.h>
#include <unistd h>
#include <sys/types.h>
#include <sys/wait.h>
// This is a comment
int main(int argc, char **argv)
        while (--c > 1 \&\& !fork());
        sleep(c = atoi(v[c])):
        printf("%d\n", c);
        wait (0);
        return 0:
```





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## **Citations**

T<sub>E</sub>X, Land Beamer

TEX is a programming language for the typesetting of documents. It was created by Donald Erwin Knuth in the late 1970s and it is documented in **The TeXbook** [1].

In the early 1980s, Leslie Lamport created the initial version of LaTeX, a high-level language on top of TeX, which is documented in LaTeX: A Document Preparation System [2]. There exists a healthy ecosystem of packages that extend the base functionality of LaTeX; The LaTeX Companion [3] acts as a guide through the ecosystem.

In 2003, Till Tantau created the initial version of Beamer, a LATEX package for the creation of presentations. Beamer is documented in the **User's Guide to the Beamer Class** [4].





# **Bibliography**

T<sub>E</sub>X, Land Beamer

- Donald E. Knuth. **The T<sub>E</sub>Xbook**. Addison-Wesley, 1984.
- Leslie Lamport. LATEX: A Document Preparation System. Addison-Wesley, 1986.
- M. Goossens, F. Mittelbach, and A. Samarin. **The LATEX Companion**. Addison-Wesley, 1994.
- Till Tantau. User's Guide to the Beamer Class Version 3.01.

  Available at http://latex-beamer.sourceforge.net.
- A. Mertz and W. Slough. Edited by B. Beeton and K. Berry. **Beamer by example** In TUGboat, Vol. 26, No. 1., pp. 68-73.





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## **There Is No Largest Prime Number**

The proof uses reductio ad absurdum.

#### Theorem

There is no largest prime number.

1. Suppose p were the largest prime number.

4. But q+1 is greater than 1, thus divisible by some prime number not in the first p numbers.







## **There Is No Largest Prime Number**

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#### Theorem

### There is no largest prime number.

- 1. Suppose p were the largest prime number.
- 2. Let q be the product of the first p numbers.
- 4. But q+1 is greater than 1, thus divisible by some prime number not in the first p numbers.







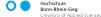
## **There Is No Largest Prime Number**

The proof uses reductio ad absurdum.

#### Theorem

### There is no largest prime number.

- 1. Suppose p were the largest prime number.
- 2. Let *q* be the product of the first *p* numbers.
- 3. Then q+1 is not divisible by any of them.
- 4. But q + 1 is greater than 1, thus divisible by some prime number not in the first p numbers.





## A longer title

- one
- two
   This is a test of bold text





# **Test (1/2)**

### First slide

- •
- •
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# **Test (2/2)**

### Second slide

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