LaTeX-cursus
4th session: Intermidate

TeXniCie

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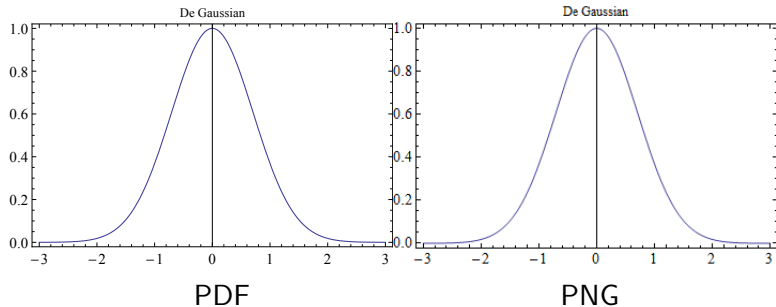## Recap

Last week we made a start with pictures.
\begin{figure}[h!]
\centering
\includegraphics[scale=0.5]{picture}
\caption{A caption}
\label{fiq:picture}
\end{figure}
\ref{fig:picture}

Spot the difference

PDF   PNG

Packages

What are they

- To get extra functionality you sometimes need to load packages
- These can be packages to add pictures like *graphix*
- But also home-made package like those of A-Eskwadraat

How to load

- Use the command usepackage
- You write down the package you want, i.e.
  \usepackage{fullpage}
- If you load a package for the first time there'll be a pop-up if everything goes as planned
- If this is not the case we have to do more work, this we will cover later

Documentclass

- Till now on we have worked with only one documentclass
- The documentclass is the option for what kind of document you want to make with LaTeX
- Till now on that has been *article*, but soon we will other examples for instance *beamer*
- With document class you can also use some options for your document, for instance \documentclass[12pt]{article}

An example

> ### An example
>
> ```latex
> \documentclass{article}
> \usepackage{marvosym,hyperref}
>
> \begin{document}
> A short example.
> \end{document}
> ```

Nice presentation

- Easy presentations, with formulae!
- Put you're documentclass on beamer
  \documentclass{beamer}

Example slide

- Very easy to make a slide
- With a formula

$$\int_{-\infty}^{\infty} e^{-x^2} \mathrm{d}x = \sqrt{\pi} \tag{1}$$

Example code

```latex
\begin{frame}
\frametitle{Example slide}
\begin{itemize}
\item Very easy to make a slide
\item With a formula
\begin{align}
Formula code
\end{align}
\end{itemize}
\end{frame}
```

Blocks

- You can add extra layout easily
- For example with blocks using the *block* environment
- Watch out to give them a title, otherwise things will go wrong...

Title

In here you write nice text or formulae

Title

In here you write an example

Title

In here you write something important

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Title
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Title
In here you write an example

Title
In here you write something important

Voorbeeldcode

```
\begin{block}{Title}
In here you write nice text or formulae
\end{block}
\begin{exampleblock}{Title}
In here you write an example
\end{exampleblock}
\begin{alertblock}{Title}
In here you write something important
\end{alertblock}
```
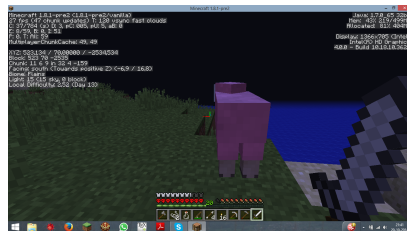
Columns

- *Blocks* use vertical alignment
- *Columns* use horizontal alignment
- Use the environmens \begin{columns} and \begin{column}
- Here you can write down how you want to alignment
- *T* for upward central, *c* for vertical central, etc.

Example of columns

Here is some text written

Voorbeeldcode

```
\begin{frame} {Example of columns}
\begin{columns}[T]
\begin{column}[T]{5cm}
Here is some text written
\end{column}
\begin{column}[T]{5cm}
\includegraphics[height=3cm]{picture}
\end{column}
\end{columns}
\end{frame}
```

Sections

- Just like in a ordinary text you can use sections, subsections, etc.
- These you can put on a slide in a table of contents with \tableofcontents
- You also get a nice overview of the whole presentation above the slide

Animations

- Just like in PowerPoint, LaTeX also has animations in the beamer class

- This is done to give an option to an itemize, for instance: [< +− >]

- With this option, on every slide there is one more item

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More animations

- You can also do this by hand
- By putting a $< 1- >$ behind an `\item` you ensure the item is directly visible
- A $< 2- >$ makes it visible the second time, etc.
- With $< 2 - 2 >$ it comes the second time and leaves afterwards
- So in general: $< n - m >$ is visible from the n-th slide up to and including the m-th slide

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Pauses

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Visibility

- As you might have noticed, at the animations the text that is about to came is already transparent
- You can change this by use of \setbeamercovered
- If you want it visible you use \setbeamercovered{dynamic}
- If you don't want to you can use \setbeamercovered{invisible}

Handouts

- LaTeX also supports Handouts
- These are simply mad by putting handout as option in documentclass
- So: \documentclass[handout]{beamer}
- All animations will be ignored

A-Eskwadraat packages

- A-eskwadraat has some home-made packages
- These are for instance the minutes package, the letter en the invoice
- We will cover the minutes here, for the letter and invoice one can take a look at our site
- `https://www.a-eskwadraat.nl/Vereniging/Commissies/hektex/packages`

Taking minutes

- nice minutes easily made
- for this we use the A-Eskwadraat package *notulen*

Minutes TeXniCie

aanwezig: Barbera, Kaj-Ivar, Peter, Rik, Aldo
afwezig: Janneke

1 oktober 2014

1 Declaring secretary

Aldo will make minutes today. *Someone makes a comment*

2 Previous minutes

Actiepunt: *Peter* makes a budget of the course

3 Closure

Rick closes the meeting at 19:45.

Actiepunten

Example code

```
\documentclass{notulen}
\titleminutes TeXniCie
\date1 oktober 2014
\aanwezig{Barbera, Kaj-Ivar, Peter, Rik, Aldo, Laurens}
\afwezig{Janneke}
\begin{document}
\maketitle
\begin{section}{Declaring secretary}
\naam{Aldo} will make minutes today.
\opm{\name{Someone} makes a comment}
\begin{section}{Previous minutes}
\ap{Peter}makes a budget of the course
\begin{section}{Closure}
Rick closes the meeting at 19:45.
\aplijstpp
\end{document}
```

Lay-out

- in `\aanewzig` you write down who are present
- sections and likewise work the same
- you can use `\naam` to emphasize a name
- with `\opm` you can include an aside

Actions

- to ensure that everyone knows what to do after a meeting we have *actiepunten* (*actions*)
- these you write down with `\ap` and the name of the person and then the action
- ad the end of the document you write `\aplijst` or `\aplijstpp` to get a nice list of the actions

To install

- you can vind the package on https://www.a-eskwadraat.nl/Vereniging/Commissies/hektex/
- there are also some install instructions here, those are also valid for other pacakges.

Presentations

- If you want to make a presentation in the A-Eskwadraat style the one does as follows
- Put the following in the preamble: \usetheme{aes2}

Next week

- Next week we will cover the index, appendix and likewise
- Proofs and Listings
- BiBtex; advanced references
- ShareLatex/Writelatex; social TeXing!