

L^AT_EX slides with beamer

So much better than PowerPoint

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Outline

- 1 Getting started
- 2 Creating overlays
- 3 Themes
- 4 Customisation
 - Colours
 - Transparency effects
 - Fonts

Beamer

- ▶ Using the package `beamer` by Till Tantau

Beamer

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- ▶ <http://latex-beamer.sourceforge.net/>

Preamble

```
▶ \documentclass{beamer}  
  \mode<presentation>  
  \usetheme{Warsaw}
```

Preamble

- ▶ `\documentclass{beamer}`
`\mode<presentation>`
`\usetheme{Warsaw}`
- ▶ Also define the following commands
`\author`
`\title`
`\subtitle`
`\institution`
`\date`

Frames

- ▶ Each page is called a **frame** and enclosed in the **frame** environment

```
\begin{frame}  
\frametitle{Conclusions}  
The text on the page goes here.  
  
\end{frame}
```

- ▶ Creating a titlepage: the author, institution, etc. specified in the preamble appears.

```
\begin{frame}  
\titlepage  
  
\end{frame}
```

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\pause

- ▶ the simplest, but not very flexible way is to issue the command `\pause`

```
\begin{itemize}
```

```
\item Appears on all slides of the frame.\pause
```

```
\item Appears from the second slide onwards.\pause
```

```
\item Appears from the third slide onwards.
```

```
\end{itemize}
```

Overlay specifications

- Using overlay specifications

```
\begin{frame}  
\only<1>{This line is shown only on slide 1.}\\  
\only<2>{This line is shown only on slide 2.}\\  
\end{frame}
```

Overlay specifications

This line is shown only on slide 1.

Overlay specifications

This line is shown only on slide 2.

\only vs. \uncover

- ▶ the argument of `\only` is simply discarded on slides where it's not shown, i.e., it occupies no space
- ▶ the argument of `\uncover` is either transparent or invisible outside slides for which it is not specified

Uncover

This line is shown on slide 1.

This line is shown only on slide 2.

Uncover

This line is shown on slide 1.

This line is shown only on slide 2.

Overlays with environments

- Using overlays with environments

```
\begin{frame}
```

```
\begin{theorem}<1->
```

There exists an infinite set.

```
\end{theorem}
```

```
\begin{proof}<3->
```

This follows from the axiom of infinity.

```
\end{proof}
```

```
\begin{example}<2->
```

The set of natural numbers is infinite.

```
\end{example}
```

```
\end{frame}
```

Overlays highlighting

- ▶ overlays can also be used for highlighting

```
\begin{frame}  
\textbf{This line is bold on all three slides.}\\  
\textbf<2>{This line is bold only on the second slide.}  
\textbf<3>{This line is bold only on the third slide.}\\  
\end{frame}
```

Overlays highlighting

This line is bold on all three slides.

This line is bold only on the second slide.

This line is bold only on the third slide.

Overlays highlighting

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Overlays highlighting

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Alert

- highlights text in red by default

```
\frame
{
\begin{itemize}
\item<alert@1> First subject.
\item<alert@2> Second subject.
\item<alert@3> Third subject.
\end{itemize}
}
```

- ▶ First subject.
- ▶ Second subject.
- ▶ Third subject.

- ▶ First subject.
- ▶ Second subject.
- ▶ Third subject.

- ▶ First subject.
- ▶ Second subject.
- ▶ Third subject.

Repeating a frame

```
► \frame<1-2>[label=myframe]
{
  \begin{itemize}
    \item<alert@1> First subject.
    \item<alert@2> Second subject.
    \item<alert@3> Third subject.
  \end{itemize}
}
\frame
{
  Some stuff explaining more on the second matter.
}
\againframe<3>{myframe}
```

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 - ▶ **presentation themes** define all aspects of your slides: fonts, colours, labels for itemized list, etc.
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- **presentation themes** define all aspects of your slides: fonts, colours, labels for itemized list, etc.

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- **font themes** only define the fonts used

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\usefonttheme{serif}
```

- **inner themes** only define elements “inside” of the frame, e.g. enumerations, itemize environments, block environments, theorem environments, or the table of contents

```
\useinnertheme{rounded}
```

- ▶ there are 5 types of themes:
 - ▶ **presentation themes** define all aspects of your slides: fonts, colours, labels for itemized list, etc.
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 - ▶ **colour themes** only define the colours used
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 - ▶ **font themes** only define the fonts used
`\usefonttheme{serif}`
 - ▶ **inner themes** only define elements “inside” of the frame, e.g. enumerations, itemize environments, block environments, theorem environments, or the table of contents
`\useinnertheme{rounded}`
 - ▶ **inner themes** only define “outside” elements of the frame, e.g. headline, footline, or sidebars
`\useoutertheme{sidebar}`

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Colours

► `\setbeamercolor{<beamer-color name>}{<options>}`

Colours

- ▶ `\setbeamercolor{<beamer-color name>}{<options>}`
- ▶ `\setbeamercolor{itemize item}{fg=orange}`

Colours

- ▶ `\setbeamercolor{<beamer-color name>}{<options>}`
- ▶ `\setbeamercolor{itemize item}{fg=orange}`
- ▶ `\setbeamercolor{normal text}{fg=orange}`

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Transparency effects

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Transparency effects

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- ▶ `\setbeamercovered{<options>}`
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 - ▶ **invisible**: default, causes covered text to completely disappear.
 - ▶ **transparent**: causes covered text to be typeset in a transparent way
 - ▶ **dynamic**: makes all covered text quite transparent, but in a dynamic way. The longer it will take till the text is uncovered, the stronger the transparency.

Transparency effects

- ▶ defines how hidden text looks
- ▶ `\setbeamercovered{<options>}`
- ▶ `\setbeamercovered{transparent}`
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 - ▶ **invisible**: default, causes covered text to completely disappear.
 - ▶ **transparent**: causes covered text to be typeset in a transparent way
 - ▶ **dynamic**: makes all covered text quite transparent, but in a dynamic way. The longer it will take till the text is uncovered, the stronger the transparency.
 - ▶ **highly dynamic**: has the same effect as dynamic, but the effect is stronger

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- ▶ `\documentclass[14pt]{beamer}`
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- ▶ `\documentclass[14pt]{beamer}`
(requires the package `extsize` to be installed)
- ▶ `\setbeamerfont{<beamer-font name>}{<options>}`

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- ▶ `\documentclass[14pt]{beamer}`
(requires the package `extsize` to be installed)
- ▶ `\setbeamerfont{<beamer-font name>}{<options>}`
- ▶ `\setbeamerfont{frametitle}{series=\bfseries,
size=scriptsize}`