

LaTeX Crash Course

Meeting 4: Presentations

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You can put less content on a LaTeX slide than on a PowerPoint slide. This has a reason. Many PowerPoint slides are overloaded with content and LaTeX will try to protect you against projecting slides with more than 100 words. There are workarounds for this, but simply trust LaTeX. Keep your slides simple—you are the main attraction of the talk!

WYSIWYG editors may deliver fancier results than LaTeX, if you invest a sufficient amount of time, but LaTeX keeps presentations simple, clearly structured and focused on content! Moreover, you can simply copy and paste your content, including formulas, from the paper into the presentation.

The Preamble

Document Class You set up a presentation with the document class `beamer`, i.e., the first line of your `.tex` file should read `\documentclass{beamer}`.

Selecting a Theme LaTeX has numerous themes from which you can choose for your presentations. These themes determine the structure of your slides. The command is `\usetheme{ThemeName}` and I recommend to select a theme within the `\mode{<presentation> ... }` environment. In any case, the choice of the theme must happen in the preamble.

Selecting a Color Theme `\usecolortheme{myfavoritecolortheme}`. The same remarks as for the theme choice apply.

Metadata Specified in the preamble as usual: `\title`, `\author`, `\institute`, and `\date`.

The Main Document

Individual Slides Each slide corresponds to a `frame` environment. You introduce it with `\begin{frame}{This is the frame title}` and you

close it by `\end{frame}`. Write the content in the lines between these two commands.

Document Structure As usual, with `\section` being the top level, followed by `\subsection`, etc.

Title Page and Table of Contents This is self-explanatory.

<code>\begin{frame}</code>	<code>\begin{frame}{Overview}</code>
<code>\titlepage</code>	<code>\tableofcontents</code>
<code>\end{frame}</code>	<code>\end{frame}</code>

Font Size If you really want to put more content on a slide, you can start a frame with `\begin{frame}[shrink]`, or the usual tricks, i.e., `\small`, `\footnotesize`, etc.

Blocks Blocks are a useful environment on slides to highlight important content, such as definitions, theorems, and so on. Use the `block` environment with `\begin{block} ... \end{block}`.

Figures, Tables, Maths, Quotations, ... Everything as usual. For large figures or tables, use the `plain` option for the frame: it will omit the footer and the header.

Bibliography Everything as usual.

Multi-Column Content Possible. Check out the `\columns` environment in the sample file.

Text Animation Perhaps you do not want to show all the content on a slide at once? Don't worry and don't create multiple `frame` environments! Instead, put a `\pause` command at each point where you want to interrupt the slideshow. More complicated forms of animation are possible, but you have to look them up yourself in the internet resources below. Look for the `\only` and the `\uncover` commands. But for most purposes, `\pause` will do the job.

Essential Internet Resources

- Short summary of LaTeX presentation commands on the MIT site.
- Overleaf tutorial on the `beamer` package.
- Wiki book on LaTeX presentations.