Beamer
(up up and away)

Kathleen Holm

program in Applied Math,
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8 Nov 2006, SWIG
Features of beamer

▶ Complicated, elegant templates
▶ Viewers can see the progress of the presentation
▶ Nice boxes for theorems, definitions, etc.
▶ With extra options and goodness comes complication
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.tex file Setup

```latex
\documentclass[ options ]{beamer}
\mode<presentation>{
  \usetheme[ options ]{ name }
  \usecolortheme[ options ]{ name }
}
\title{Title of Presentation}
\subtitle{}
\author{Author's name}
\institute{University of Arizona}
```

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Beamer
.tex file Setup

\begin{document}
\begin{frame}
\titlepage
\end{frame}

\section*{Outline}
\begin{frame}
\tableofcontents
\end{frame}

\begin{frame}
\end{frame}

\end{frame}

...
.tex file Setup

\section{Name of Section}
\subsection{...}
\begin{frame}
\frametitle{slide’s title }
content of slide
\end{frame}
\section{Another Section}
...
\end{document}
Outline

Introduction

Overlays

Math

Conclusions

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Beamer
First point
Second point, however...
  If this,
  then That!
Therefore, Third point,
Fourth point

Summary
The final point
Last thing to say
First point

Second point, however...
  ▶ If this,
  ▶ then That!

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Summary
  ▶ The final point
  ▶ Last thing to say
Creating overlays

\begin{itemize}
  \item First point.
  \pause
  \item Second point, however...
    \begin{itemize}
      \item If this,
      \pause
      \item then That!
    \end{itemize}
  \item Therefore, Third point,
  \pause
  \item Fourth point
\end{itemize}
...
Creating overlays

... Summary

\begin{itemize}
  \onslide % \onslide: on every slide
  \item The final point
  \pause
  \item Last thing to say
\end{itemize}
One more time

- First point
- Second point, however...
  - If this,
  - then That!
- Therefore, Third point,
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Summary

- The final point
- Last thing to say
One more time

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Theorems, Definitions, Proofs,...

- Beamer supports environments to make professional looking theorems
- Also in a block style
- Unfortunately, not available for demonstration at this time
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example of what we want

- **Definition**
  The Riemann Zeta function is defined, for all $s \in \mathbb{C}$, by
  \[
  \zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s} = \prod_{p \in \mathbb{P}} \frac{1}{1-p^{-s}}
  \]

- **Riemann’s Hypothesis**
  All non-trivial zeros of $\zeta(s)$ have real part one-half.

- **Sketch of proof**
example of what we want

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- Sketch of proof
Dividing the space with Columns

Bifurcation Diagram for

\[ x_{n+1} = rx_n(1-x_n^2) \]
the Columns Environment

\begin{frame}
\begin{columns}[ options ] % opt for alignment, example: ’t’
\column{width of col 1}
stuff
\column{width of col 2}
stuff
...
\end{columns}
\end{frame}
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Conclusions

- Beamer has the most functionality, and changable options
- Something for everyone: simplicity vs complexity, visually boring vs stylish
- Will require some research on documentation and patience.
For more information:

To download, see examples, etc.:

http://latex-beamer.sourceforge.net/

For Documentation:
Search the web for beameruserguide.pdf