Typesetting Presentations

LaTeX: A Professional Document Preparation System

Ratthaprom PROMKAM
ratthaprom_p@rmutt.ac.th

Department of Mathematics and Computer Science
Rajamangala University of Technology Thanyaburi

March 25, 2023

AGENDA

1. The beamer Package

2. Adding Effects

3. Formatting Columns

4. Highlighting Stuffs

5. Using Themes and colorthemes

INTRODUCTION

Here is a working example of a beamer presentation.

```latex
1   \documentclass{beamer}
2
3   \title{The Beamer Package}
4   \author{John Doe}
5   \institute{A Famous University}
6   \date{25 December 2023}
7
8   \begin{document}
9
10  \begin{frame}
11  \maketitle
12  \end{frame}
13
14  \begin{frame}
15  \frametitle{Introduction}
16  This is a slide. You can put some contents here.
17  For example, \[ x^2 + g(y) = \int f(x) \mathrm{d}x + y^3. \]
18  \end{frame}
19
20  \end{document}
```

THE TITLE PAGE

```latex
\title{The Beamer Package}
\subtitle{Creating good looking presentations in LaTeX}

\author{John Doe\inst{1} and Sam Willy\inst{2}}

\institute{
\inst{1}%
Faculty of Mathematics\\
A Famous University
\and
\inst{2}%
Faculty of Computer Science\\
Another Famous University
}

\date{25 December 2023}

\logo{\includegraphics[height=2cm]{figures/ctan_lion.png}}
```

EXAMPLE

The Beamer Package

Creating good looking presentations in LaTeX

John Doe[1] and Sam Willy[2]

[1]Faculty of Mathematics
A Famous University

[2]Faculty of Computer Science
Another Famous University

25 December 2023

... contents here. For example,

$$\int f(x)\mathrm{d}x + y^3.$$

CREATING A TABLE OF CONTENTS

```
\begin{frame}
\frametitle{Table of Contents}
\tableofcontents
\end{frame}

\section{Introduction}
\begin{frame}
\frametitle{Introduction}
This is a slide. You can put some contents
 ↪  here.
For example, \[ x^2 + g(y) = \int f(x)
 ↪  \mathrm{d}x + y^3. \]
\end{frame}
```

EXAMPLE

Table of Contents

Introduction

Recent Works

Main Results

Analysis & Discussions

Conclusion

ADDING EFFECTS TO ITEMS

```
1   \begin{frame}
2   \frametitle{Sample frame title}
3   This is a text in second frame.
4   For the sake of showing an example.
5
6   \begin{itemize}
7    \item<1- > Text visible from slide 1.
8    \item<2-3> Text visible from slide 2 to slide 3.
9    \item<3> Text visible only on slide 3.
10   \item<4- > Text visible from slide 4.
11  \end{itemize}
12  \end{frame}
```

EXAMPLE

This is a text in second frame. For the sake of showing an example.

- Text visible from slide 1.

Example

This is a text in second frame. For the sake of showing an example.

- Text visible from slide 1.
- Text visible from slide 2 to slide 3.

Example

This is a text in second frame. For the sake of showing an example.

- Text visible from slide 1.
- Text visible from slide 2 to slide 3.
- Text visible only on slide 3.

Example

This is a text in second frame. For the sake of showing an example.

- Text visible from slide 1.

- Text visible from slide 4.

ADDING EFFECTS TO A PARAGRAPH

```
\begin{frame}
\onslide<1- >{%
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo. }

\onslide<2- >{%
\[ x^2 + y^2 = z^2 \] }

\onslide<3>{%
Phasellus porttitor malesuada augue,
sit amet congue neque pharetra ac.
Fusce maximus orci non viverra ultricies.
Morbi nec condimentum turpis.
Nullam eleifend varius mauris eget fringilla.}

\onslide<4>{%
Integer finibus suscipit est et molestie.}
\end{frame}
```

Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo.

EXAMPLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

EXAMPLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Phasellus porttitor malesuada augue, sit amet congue neque
pharetra ac. Fusce maximus orci non viverra ultricies. Morbi
nec condimentum turpis. Nullam eleifend varius mauris eget
fringilla.

EXAMPLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Integer finibus suscipit est et molestie.

ADDING EFFECTS WITH PAUSES

```latex
\begin{frame}
Lorem ipsum dolor sit amet,
consec adipisc elit. Curabit pellentes leo. \pause

\[ x^2 + y^2 = z^2 \] \pause

Phasellus porttitor malesuada augue,
sit amet congue neque pharetra ac.
Fusce maximus orci non viverra ultricies. \pause
Morbi nec condimentum turpis.
Nullam eleifend varius mauris fringilla. \pause

Integer finibus suscipit est et molestie.
\end{frame}
```

EXAMPLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur non pellentesque leo.

Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Phasellus porttitor malesuada augue, sit amet congue neque pharetra ac. Fusce maximus orci non viverra ultricies.

EXAMPLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Phasellus porttitor malesuada augue, sit amet congue neque pharetra ac. Fusce maximus orci non viverra ultricies. Morbi nec condimentum turpis. Nullam eleifend varius mauris eget fringilla.

Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur non pellentesque leo.

$$x^2 + y^2 = z^2$$

Phasellus porttitor malesuada augue, sit amet congue neque pharetra ac. Fusce maximus orci non viverra ultricies. Morbi nec condimentum turpis. Nullam eleifend varius mauris eget fringilla.
Integer finibus suscipit est et molestie.

Columns

Sometimes the information in a presentation looks better in a two-column format. In such cases use the columns environment:

EXAMPLE

This is a text in first column.

$$E = mc^2$$

- First item
- Second item

This text will be in the second column and on a second thoughts, this is a nice looking layout in some cases.

HIGHLIGHTING IMPORTANT STUFFS

A good practice is to highlight the important points to make it easier for audiences to identify the main topic.

EXAMPLE

In this slide, some important text will be highlighted because it's important. Please, don't abuse it.

Remark

Sample text

Important box

Sample text in red box

Examples

Sample text in green box. The title of the block is "Examples".

USING THEMES

The **Madrid** theme is set by adding the following command:

```latex
\documentclass{beamer}
\usetheme{Madrid}

\title{The Beamer Package}
\subtitle{Creating good looking presentations in LaTeX}
\author{John Doe\inst{1} and Sam Willy\inst{2}}
\institute{
\inst{1}%
Faculty of Mathematics\\A Famous University
\and
\inst{2}%
Faculty of Computer Science\\Another Famous University
}
\date{25 December 2023}
\logo{\includegraphics[height=2cm]{figures/ctan_lion.png}}
\begin{document}
\begin{frame}
\maketitle
\end{frame}
```

BEAMER THEME: MADRID

BEAMER THEME: MADRID

Table of Contents

1. Introduction

2. Recent Works

3. Main Results

4. Analysis & Discussions

5. Conclusion

BEAMER THEME: MADRID

Table of Contents

1. Intro
2. Rece
3. Main
4. Anal
5. Conc

John Doe and Sa

Highlighting important stuffs

In this slide, some important text will be highlighted because it's important. Please, don't abuse it.

Remark
Sample text

Important box
Sample text in red box

Examples
Sample text in green box. The title of the block is "Examples".

John Doe and Sam Willy (Faculty of Mather   The Beamer Package   25 December 2023   7 / 8

Beamer Theme: Berkeley

BEAMER THEME: BERKELEY

BEAMER THEME: BERKELEY

Beamer Theme: Copenhagen

BEAMER THEME: COPENHAGEN

BEAMER THEME: COPENHAGEN

USING A `colortheme`

A theme can be combined with a **`colortheme`** to change the color used for different elements:

Madrid THEME + **beaver** COLORTHEME

Madrid THEME + beaver COLORTHEME

Table of Contents

1. Introduction

2. Recent Works

3. Main Results

4. Analysis & Discussions

5. Conclusion

Madrid THEME + **beaver** COLORTHEME

Table of Contents

1. Intro
2. Rece
3. Main
4. Anal
5. Conc

Highlighting important stuffs

In this slide, some important text will be highlighted because it's important. Please, don't abuse it.

Remark
Sample text

Important box
Sample text in red box

Examples
Sample text in green box. The title of the block is "Examples".

Madrid + wolverine

The Beamer Package
Creating good looking presentations in LaTeX

John Doe[1] and Sam Willy[2]

[1]Faculty of Mathematics
A Famous University

[2]Faculty of Computer Science
Another Famous University

25 December 2023

Madrid + wolverine

Table of Contents

1. Introduction

2. Recent Works

3. Main Results

4. Analysis & Discussions

5. Conclusion

Madrid **+wolverine**

Table of Contents

1. Intro
2. Rece
3. Main
4. Anal
5. Conc

Highlighting important stuffs

In this slide, some important text will be highlighted because it's important. Please, don't abuse it.

Remark
Sample text

Important box
Sample text in red box

Examples
Sample text in green box. The title of the block is "Examples".

Berkeley + beaver

Berkeley + beaver

Berkeley + **beaver**
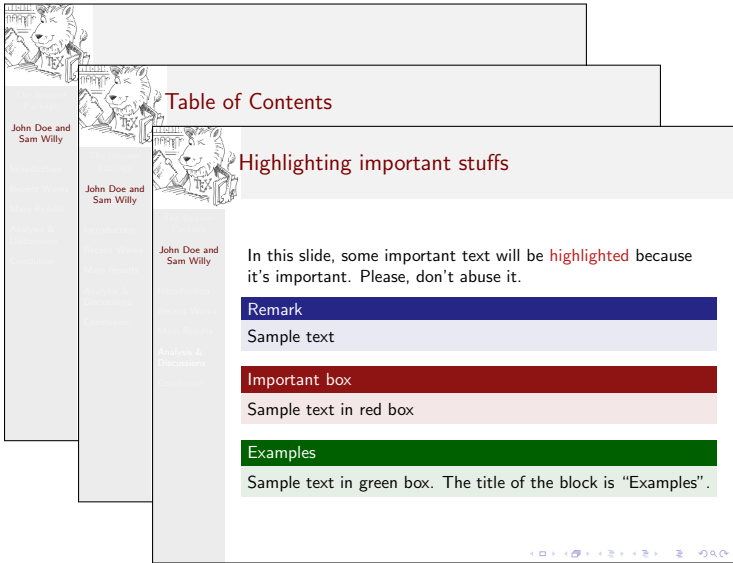
THEMES AND COLORTHEMES

For a beamer presentation, we can use different combinations of themes and colorthemes. To have a complete list of them, see the following.

- The package documentation:
  `https://ctan.org/pkg/beamer?lang=en`.
- Piping's beamer theme matrix:
  `https://hartwork.org/beamer-theme-matrix/`.
- Petroff's beamer theme matrix: `https://mpetroff.net/files/beamer-theme-matrix/`

Ratthaprom PROMKAM

RMUTT, March 25, 2023   ratthaprom_p@rmutt.ac.th