Creating Slides Using Beamer and the AUTtheme

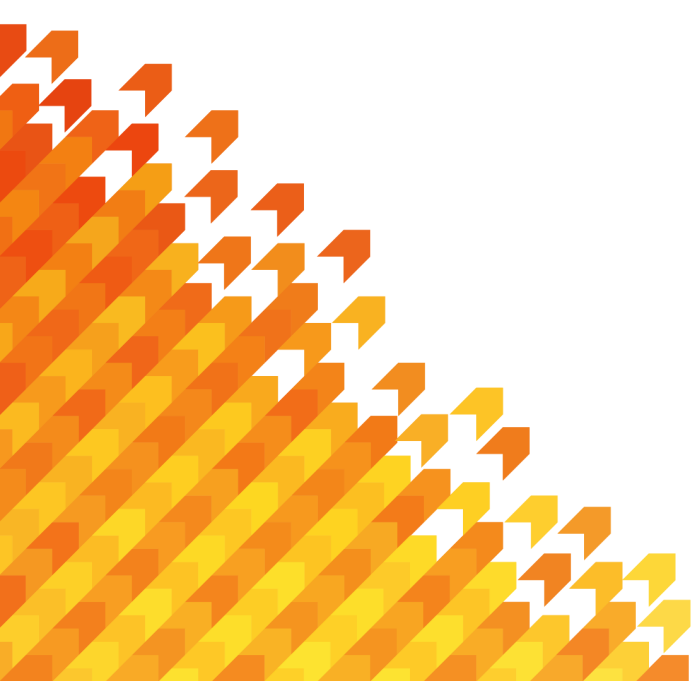
A user guide

Sarah Marshall[1], Wenqiang Liu[2]

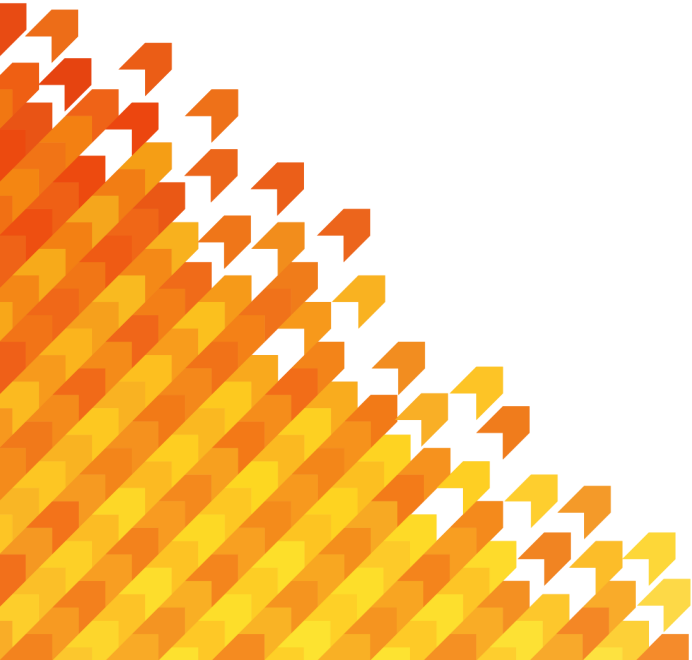
8 March 2023

[1]Engineering, Computer Mathematical Sciences (ECMS)
[2]Engineering, Computer Mathematical Sciences (ECMS)

Table of Contents



Frames



Outline

Frame Sizes

The template can be used to create 16×9 or 4×3 slides. The resolution of the background images get updated automatically.

- To create 16×9 slides

  ```
  \documentclass[aspectratio=169]{beamer}
  ```

- To create 4×3 slides

  ```
  \documentclass[]{beamer}
  ```

Loading the AUTTheme

```
\usepackage{AUTtheme}
```

The DCT colour theme is the default, however it can be forced as follows:

```
\usepackage[dct]{AUTtheme}
```

Compiling with AUTTheme

`lualatex` is recommended.

Frame Types

This template uses three types of frames

- **Title page:**

```
\begin{frame}
  \maketitle
\end{frame}
```

- **Section frame:**

```
\begin{sectionframe}\frametitle{Frame Title}
 Content for right hand side of slide
\end{sectionframe}
```

- **Default frame:**

```
\begin{frame}{Frame Title}
Frame content
\end{frame}
```

Create contents page using sectionframe environment

Example Code

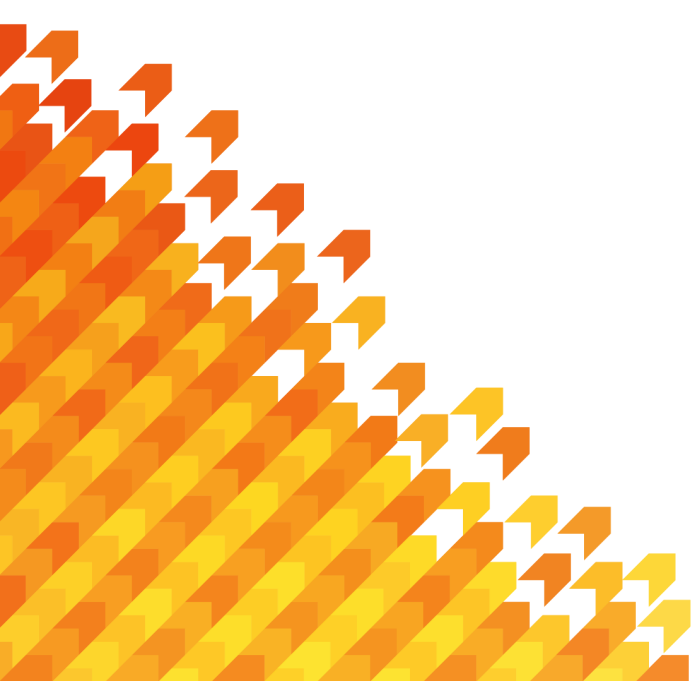
```
\begin{sectionframe}
\frametitle{Table of Contents}
\tableofcontents[
     hideallsubsections]
\end{sectionframe}
```

You can use `\tableofcontents` or build your own table of contents page.

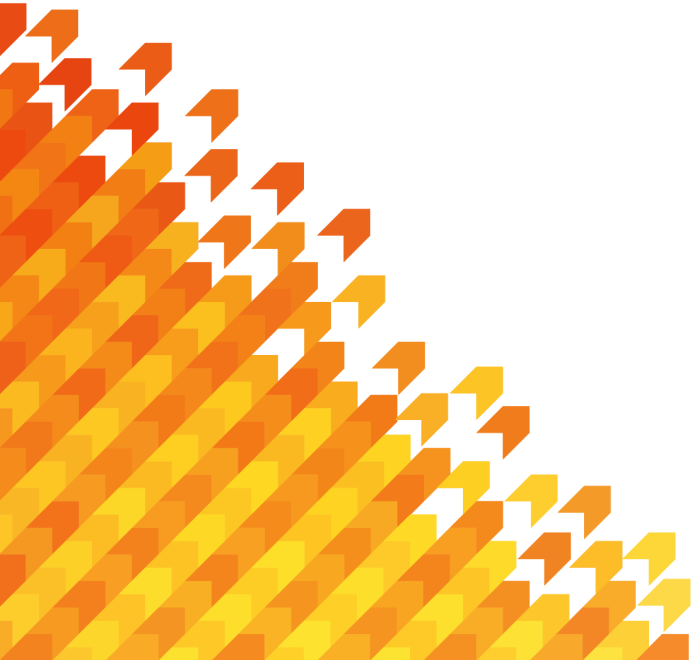
Slides at beginning of section

By default two `sectionpage` is displayed at the start of each section. The first contains the section name and the second contains a table of contents.
Both can be edited within the `.tex` file.
e.g. To switch off use within the `.tex` file.

```
\AtBeginSection{}
```



Slide Content



Outline

List

- Item 1
  - Subitem 1.1
    - Subsubitem 1.1.1
    - Subsubitem 1.1.2
- Item 3

List

- Item 1
  - Subitem 1.1
    - Subsubitem 1.1.1
    - Subsubitem 1.1.2
- Item 2 – This item appears second due to <2–>
- Item 3

Example: create a one-off table of contents

Ordered Lists

1. Point 1
2. Point 2
    a. part a
        i. another point
        ii. another point

Ordered Lists

1. Point 1
2. Point 2
    a. part a
        i. another point
        ii. another point
    b. The `\pause` command can be used to delay appearance of content
        - another point
        - another point
3. Point 3
4. Point 4

Highlights and Colours

- highlighted `\colorbox{orange}{text}`
- **AUT-themed orange text** `\alert{text}` or `\textcolor{deeporangeAUT}{text}`.
- **bold** `\textbf{text}`
- **alert** `\alert{text}`
- coloured `\textcolor{blue}{text}`

Blocks

Alert block

This is an alert block, customised to match the AUT colour scheme.

Block

This is a standard block.

Example block

This is an example block.

Columns

This is a text in the first column.

$$E = mc^2$$

This is a text in the second column.

- The first term
- The second term

Three columns

This is the first column content.

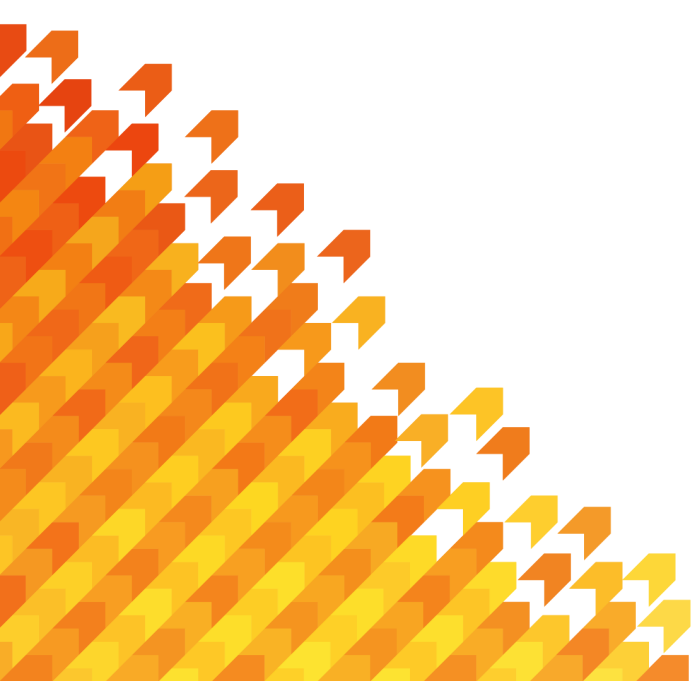
This is the second column content.

This is the third column content.

Citations and Footnotes

You can cite a paper like this [2, 1].
Footnotes can be inserted like this [1].

[1] Lam, Yeh. The Geometric Process and Its Applications. World Scientific, Hackensack, NJ, 2007.



Maths and Floats

Outline

Using math formula

In this slide, we insert an equation(1), which is the definition of y.

$$y = \begin{cases} \frac{1}{f(x)}, & f(x) \neq 0 \\ f(x), & f(x) = 0 \end{cases} \tag{1}$$

Insert a table

This results are shown in Table 1

Table 1: A sample table

Metrics	M1	M2
Accu-racy	84%	88%
Preci-sion	91%	90%
Recall	75%	77%

Insert a sample figure

The data-set information is shown in Figure 1.

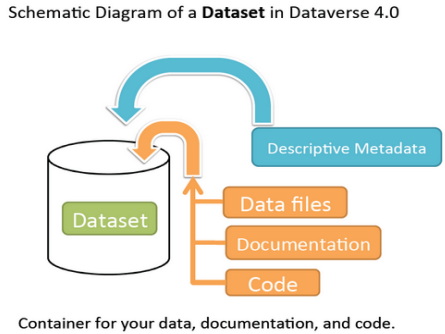


Figure 1: A sample picture

References

[1] Hans Buehler, Lukas Gonon, Josef Teichmann, and Ben Wood.
Deep hedging.
Quantitative Finance, 19(8):1271–1291, 2019.

[2] Josef Teichmann.
Machine learning in finance.
URL: https://people. math. ethz. ch/jteichma/index. php, 2019.

Thank you very much for your attention!

The end