Introduction to Beamer for the Lightboard

Beamer Basics

Beamer

We use Beamer instead of PowerPoint to create presentations to be projected on a screen. Since it is based on LaTeX, it is excellent for presentations with mathematical formulas.
Indeed, we assume the user is already familiar with LaTeX.

This slide deck uses the `ep-dark` style which provides a particularly simple, clean design featuring white text on a black backgound. This is ideal for use on the Lightboard.

Keep it clean! Don’t put too many words on a slide.

Blocks

This is a block

A block structure is useful for highlighting particular information.

Definition

The definition environment is a type of block used for definitions. Highlight the word you are defining.

Itemized lists

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- Items are added one by one until done.

Pauses

The pause command

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The pause command is a mechanism for building up a slide in pieces.

Only

The only command provides more fine control in revealing material on a slide.

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The only command provides more fine control in revealing material on a slide. This sentence will only appear after the first the first one.

Only

The only command provides more fine control in revealing material on a slide. The second sentence was only on the 2nd slide; this sentence will be on slides 3 and all subsequent slides.

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The only command provides more fine control in revealing material on a slide.
The second sentence was only on the 2nd slide; this sentence will be on slides 3 and all subsequent slides.
Finally, this sentence appears.

Mathematics

Because Beamer is built in LaTeX it does mathematics beautifully either inside a sentence, $\sqrt{2} + \cos\theta$, or in display mode:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}.$$

Do it right! Notice this difference between $cos\theta$ [wrong!] and $\cos\theta$ [yes!].

Aligned equations

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$$|z| = \sqrt{z \cdot \overline{z}}$$

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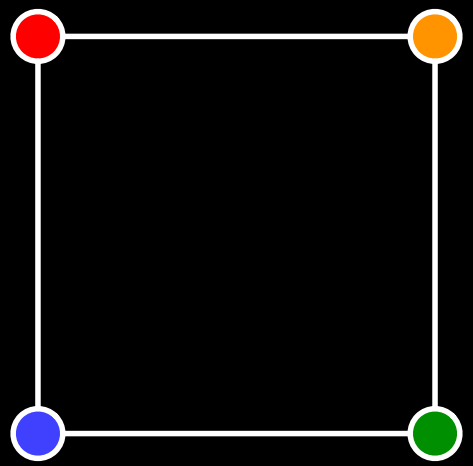
Figures

The graphicx package provides the includegraphics command. Prepare graphics with a drawing program using light colored lines and shapes on a black or transparent background. Save in a standard graphics format.



Math extras

Use the amsmath and amsthm packages for additional math functionality.

Theorem (Binomial)

Let n be a nonnegative integer. Then

$$(x+y)^n = \sum_{k=0}^{n} \binom{n}{k} x^k y^{n-k}. \quad \square$$