

# Brief Introduction to the Beamer Class

A Primer on Making Awesome Presentations

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# First Frame Title

Subtitle pertaining to the first frame.

Frame contents.

## Second Frame Title

Subtitle pertaining to the second frame.

Some important text will be highlighted because it's important.

### Block Box

The text contained inside this block is incredibly important. In a cosmic sense, it may also be funny.

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### Third Frame Title

Subtitle pertaining to the third frame.

This frame contains a figure.



**Figure 2.1:** A funny picture.

## Fourth Frame Title

Subtitle pertaining to the fourth frame.

The Dirac delta can be loosely thought of a function on the real line which is zero everywhere except at the origin, where it is infinite:

$$\delta(x) = \begin{cases} +\infty, & x = 0 \\ 0, & x \neq 0, \end{cases} \quad (2.1)$$

and which is also constrained to satisfy the identity

$$\int_{\mathbb{R}} \delta(x) \, dx = 1. \quad (2.2)$$



**Figure 2.2:** A cute picture.



## Fifth Frame Title

Subtitle pertaining to the fifth frame.

Here is some text in the first column. A famous equation is written below.

$$\frac{1}{c^2} \frac{\partial^2}{\partial t^2} \psi - \nabla^2 \psi + \frac{m^2 c^2}{\hbar^2} \psi = 0.$$

This text will be in the second column.

- First list item
- Second list item
- Third list item

## Sixth Frame Title

Subtitle pertaining to the sixth frame.

Consider some  $A \in \mathbb{R}^{p \times q}$  and  $B \in \mathbb{R}^{q \times p}$ . We can represent these matrices as

$$A = \begin{pmatrix} a_{11} & a_{12} & \cdots & a_{1q} \\ a_{21} & a_{22} & \cdots & a_{2q} \\ \vdots & \vdots & \ddots & \vdots \\ a_{p1} & a_{p2} & \cdots & a_{pq} \end{pmatrix} \quad \text{and} \quad B = \begin{pmatrix} b_{11} & b_{12} & \cdots & b_{1p} \\ b_{21} & b_{22} & \cdots & b_{2p} \\ \vdots & \vdots & \ddots & \vdots \\ b_{q1} & b_{q2} & \cdots & b_{qp} \end{pmatrix}$$

respectively. Then the product  $AB$  can be written

$$AB = \begin{pmatrix} a_{11}b_{11} + \cdots + a_{1q}b_{q1} & a_{11}b_{12} + \cdots + a_{1q}b_{q2} & \cdots & a_{11}b_{1p} + \cdots + a_{1q}b_{qp} \\ a_{21}b_{11} + \cdots + a_{2q}b_{q1} & a_{21}b_{12} + \cdots + a_{2q}b_{q2} & \cdots & a_{21}b_{1p} + \cdots + a_{2q}b_{qp} \\ \vdots & \vdots & \ddots & \vdots \\ a_{p1}b_{11} + \cdots + a_{pq}b_{q1} & a_{p1}b_{12} + \cdots + a_{pq}b_{q2} & \cdots & a_{p1}b_{1p} + \cdots + a_{pq}b_{qp} \end{pmatrix}.$$