

**Title**

**Subtitle**

Author

# Simple Content

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Here we have an `itemize` environment.

- ▶ First.
- ▶ Second.
- ▶ Third.

This is a paragraph. Lorem **ipsum** dolor sit amet, consetetur sadipscing elitr, sed diam nonumy **eirmod** tempor invidunt ut labore et dolore **magna** aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren.

Here we have an `enumerate` environment.

1. First.
2. Second.
3. Third.

# Simple Content with Background

Here we have an `itemize` environment.

- ▶ First.
- ▶ Second.
- ▶ Third.

This is a paragraph. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren.

Here we have an `enumerate` environment.

1. First.
2. Second.
3. Third.

# Mathematical Content

## An Example of Mathematical Content

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$$\begin{aligned} p(C, \Pi, \Theta, W) &= p(\Pi | \alpha)p(C | \Pi)p(\Theta | \beta)p(W | C, \Theta) \\ &= \left( \prod_d^D p(\pi_d | \alpha_d) \right) \left( \prod_d^D \prod_i^{I_d} p(c_{di} | \pi_d) \right) \left( \prod_d^D \prod_i^{I_d} p(w_{di} | c_{di}, \Theta) \right) \left( \prod_k^K p(\theta_k | \beta_k) \right) \\ &= \left( \prod_d^D \mathcal{D}(\pi_d; \alpha_d) \right) \left( \prod_d^D \prod_i^{I_d} \left( \prod_k^K \pi_{dk}^{c_{dik}} \right) \right) \left( \prod_d^D \prod_i^{I_d} \left( \prod_k^K \theta_{kW_{di}}^{c_{dik}} \right) \right) \left( \prod_k^K \mathcal{D}(\theta_k; \beta_k) \right) \\ &= \left( \prod_d^D \frac{\Gamma(\sum_k \alpha_{dk})}{\prod_k \Gamma(\alpha_{dk})} \prod_k^K \pi_{dk}^{\alpha_{dk}-1+n_{dk.}} \right) \left( \prod_d^D \frac{\Gamma(\sum_v \beta_{kv})}{\prod_v \Gamma(\beta_{kv})} \prod_v^V \theta_{kv}^{\alpha_{kv}-1+n_{.kv}} \right) \end{aligned}$$

This is some joint probability distribution.

# Mathematical Content

## Theorems and Proofs

### Definition (odd integer)

An integer  $z \in \mathbb{Z}$  is said to be odd if it is not divisible by two, i.e. there exist no  $k \in \mathbb{Z}$  s.t.  
$$z = 2k.$$

### Theorem (Multiplication of Odd Integers Yields Odd Integer)

Let  $a, b \in \mathbb{Z}$  be two non-null odd integers. Then  $a \cdot b$  is an odd integer.

#### Proof.

Let  $k, l \in \mathbb{Z} \setminus \{0\}$ ,  $a = 2k + 1$ ,  $b = 2l + 1$ . Then

$$a \cdot b = (2k + 1)(2l + 1) = 4kl + 2k + 2l + 1 = 2(2kl + k + l) + 1$$

which is odd. □

# Algorithmic Content

## Bubble Sort

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Bubble Sort is an algorithm to sort an array of real numbers.

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### Algorithm 1 BubbleSort( $A$ )

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```
1:  $n \leftarrow \text{length}(A)$ 
2: for  $i \leftarrow 1 \dots n - 1$  do
3:   for  $j \leftarrow 1 \dots n - i$  do
4:     if  $A[j + 1] < A[j]$  then
5:       swap  $A[j]$  and  $A[j + 1]$ 
6:     end if
7:   end for
8: end for
9: return  $A$ 
```

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# Blocks and Stripes

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Important information.

Some content is just too important to leave it without highlighting on a slide

Some content is just too important to leave it without highlighting on a slide.

# **Highlight Title**

Highlight Subtitle

Sometimes there is a need for a special highlighting page to separate different topics in the presentation.