



UBD Beamer Theme

An unofficial theme for *Universiti Brunei Darussalam*

<https://haziqj.ml>

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Overview

Introduction

Features

- Lists

- Blocks

- Quotes

- Columns

- Colour scheme

Mathematics

Citations

Introduction

The UBD Beamer Theme is a modern and minimal theme designed for getting information across in a clean and uncluttered manner.

This theme is based on the Saarland Beamer Theme, with its logos and fonts changed, and colour scheme adapted to UBD's pastel-ised colour scheme.

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Slide full of lists

Universiti Brunei Darussalam (UBD; translation University of Brunei Darussalam; Jawi: *يونبيرسيتي بروني دارالسلام*) is the first university in Brunei.

- UBD in figures
 - **Established:** 1985
 - **Medium of instruction:** English
 - **Academic faculties:** 9
 - **Research Institutes:** 7
 - **Student enrolment:** 3,137 (in 2015, approx.)
- History
 - **1985:** UBD established, first campus in Gadong
 - **1995:** UBD moved to Tungku Link
 - **2009:** Introduction of GenNEXT Programme
 - **2011:** Commencement of the first Discovery Year programme
- Credits: <https://ubd.edu.bn/> and Wikipedia

Blocks

This is a subtitle

Standard Block

This is a standard block using the `block` environment.

Example Block

This is an example block using the `exampleblock` environment.

Alert Block

This is an alert block using the `alertblock` environment.

Quotation

Archimedes will be remembered when Aeschylus is forgotten, because languages die and mathematical ideas do not. "Immortality" may be a silly word, but probably a mathematician has the best chance of whatever it may mean.

— G. H. Hardy in *A Mathematician's Apology*, 1941

Two Columns

We can also add two columns in the slides.

This is the first column. In this column, we can also add a block for instance.

Block

I am a block in a column.

- In this column,
- we just add the
- bullet points.

Colour scheme

- Frame titles: navyblue
- Structure: gray
- Alerted text: solidpink
- Standard block: charcoal
- Example block: turquoise!60!black

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Let $X \sim \text{Pois}(\lambda)$. The probability mass function of X is given by

$$\Pr(X = x) = \frac{e^{-\lambda} \lambda^x}{x!}. \quad (1)$$

Using the pmf given in (1), we can derive the moment generating function for X to be:

$$\begin{aligned} M_X(t) &= \sum_{k=0}^{\infty} e^{tx} \cdot \frac{e^{-\lambda} \lambda^x}{x!} \\ &= e^{-\lambda} \sum_{k=0}^{\infty} \frac{(\lambda e^t)^x}{x!} \\ &= e^{-\lambda} e^{\lambda e^t} \\ &= \exp\{\lambda(e^t - 1)\}. \end{aligned}$$

Theorems et al.

Definition 1 (Prime numbers)

A prime number is a natural number greater than 1 that is not a product of two smaller natural numbers.

Theorem 2 (Infinitude of primes)

There are an infinite number of prime numbers.

Proof.

Suppose that there exist only a finite number of primes, p_1, \dots, p_n , say.
The number

$$N = 1 + p_1 \cdots p_n$$

is divisible by some prime p . But p cannot be any of p_1, \dots, p_n , since the latter all leave remainder 1 on dividing N . This contradicts our assumption that p_1, \dots, p_n is the complete list of primes. ■

A maths example

Maths examples are numbered (using the `example` environment).

Example 3 (Examples of prime numbers)

2, 3, 5, 7 and 11 are examples of prime numbers.

Example 4 (Examples of non-prime numbers)

Since $4 = 2 \times 2$, it is not a prime.

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The biblatex package is pre-loaded in this theme.

The importance of grounding one's self in elementary probability theory and mathematical statistics cannot be overstated. Here are some excellent fundamental textbooks every student of statistics should read: Casella and Berger (2002), Pawitan (2001), and Wasserman (2004).

Warning

Using fancy tools like neural nets, boosting, and support vector machines without understanding basic statistics is like doing brain surgery before knowing how to use a band-aid (Wasserman, 2004).

End

Thank you!

References I

- Casella, G. and R. L. Berger (2002). *Statistical Inference*. 2nd ed. Pacific Grove, CA: Duxbury. ISBN: 978-0-534-24312-8.
- Pawitan, Y. (2001). *In All Likelihood*. Statistical Modelling and Inference Using Likelihood. Oxford University Press. ISBN: 978-0-19-850765-9.
- Wasserman, L. (2004). *All of Statistics. A Concise Course in Statistical Inference*. New York: Springer-Verlag. ISBN: 978-0-387-40272-7. DOI: 10.1007/978-0-387-21736-9.