

# CUHK Beamer Template

## Sample Slides

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# Itemize Tests

- One: *Two* **Three**
  - letterspacing
  - underlining
  - ~~striking out~~
  - highlighting
  - CAPITALS, Small Capitals
  - Box
- Test Test Test

All human things are subject to decay. And when fate summons, Monarchs must obey.

Hello, here is some text  
without a meaning. This text  
should show what a printed

text will look like at this place.  
If you read this text, you will  
get no information. Really? Is

there no information? Is there...

# Plot Test

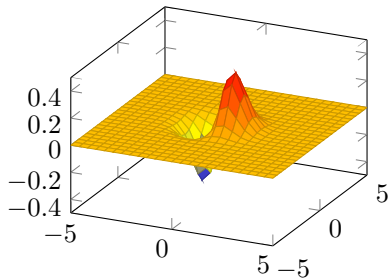


Figure: Plot  $z = x(-x^2 - y^2)$

- 这是简体中文: **加粗** + 下划线
  - 这是第二层
- 大部分中文字体不支持斜体命令`\textit{}`

披绣闼，俯雕甍，山原旷其盈视，川泽纡其骇瞩。闾阎扑地，钟鸣鼎食之家；舸舰弥津，青雀黄龙之舳。云销雨霁，彩彻区明。落霞与孤鹜齐飞，秋水共长天一色。渔舟唱晚，响穷彭蠡之滨；雁阵惊寒，声断衡阳之浦。

- 這是繁體中文: **加粗** + 下劃線
  - 這是第二層
- 大部分中文字體不支持斜體命令\textit{}

披繡闥，俯雕甍。山原曠其盈視，川澤紆其駭矚。閭閻撲地，鐘鳴鼎食之家；舸艦彌津，青雀黃龍之舳。雲銷雨霽，彩徹區明。落霞與孤鶩齊飛，秋水共長天一色。漁舟唱晚，響窮彭蠡之濱；雁陣驚寒，聲斷衡陽之浦。

- Yao's Millionaires' problem<sup>1</sup>

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<sup>1</sup>A. C. Yao (1982). "Protocols for Secure Computations". In: *Proceedings of the 23rd Annual Symposium on Foundations of Computer Science*. SFCS '82. USA: IEEE Computer Society, pp. 160–164.

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## Algorithm 1: Basic algorithm for Abstract Interpretation

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**Input:** Control Flow Graph:  $CFG$

**Output:** Invariant:  $State$

1 initialization:

$State[n] \leftarrow \top$  if  $n = \text{Entry}(CFG)$

$State[n] \leftarrow \perp$  otherwise

2  $WorkList \leftarrow \text{Entry}(CFG)$

3 **while**  $WorkList$  is not empty **do**

4      $WorkList \leftarrow WorkList \setminus \{n\}$

5      $new\_state \leftarrow \text{Transfer}(State[n])$

6     **foreach**  $succ \in \text{Successors}(CFG, n)$  **do**

7         **if**  $new\_state \not\sqsubseteq State[succ]$  **then**

8              $State[succ] \leftarrow State[succ] \sqcup new\_state$

9              $WorkList \leftarrow WorkList \cup \{succ\}$

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# Code Test

```
1 fn main() {  
2     println!("Hello World!");  
3 }
```

- Inline code is also supported: `fn main() { }`

1 Symbols:  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \nu, \xi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$ ;

2 Symbols:  $f'', \sqrt{a}, \vec{a}, \subseteq, \supseteq$

$$\int, \iint, \iiint, \iiiii, \oint$$

3 Complex equation:

$$\lim_{x \rightarrow 0^+} \lim_{y \rightarrow +\infty} \frac{\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n} \sum_{m=0}^{\infty} \frac{1}{n2^m + 1} \int_0^{x^2} \frac{\pi (\sqrt[4]{1+t} - 1) \sin t^4}{\sum_{n=1}^{\infty} \frac{((n-1)!)^2 (2t)^{2n}}{(2n)!} \int_0^1 \frac{(1-2x) \ln(1-x)}{x^2 - x + 1} dx} dx}{x^2 (x - \tan x) \ln(x^2 + 1) \left[ \left( \frac{2 \arctan \frac{y}{x}}{\pi} \right)^y - 1 \right]} = \frac{27}{32}$$

Fancy style theorem:

## Theorem 1: Pythagorean Theorem

For a right triangle with legs  $a$  and  $b$  and hypotenuse  $c$ ,

$$a^2 + b^2 = c^2.$$

This is a reference to Theorem 1.

Normal style theorem:

## Theorem (Fixed-point Theorem)

*In a lattice  $L$  with finite height, every monotone function  $f : L \rightarrow L$  has a unique least fixed-point denoted  $fix(f)$  defined as:*

$$fix(f) = \bigsqcup_{i \geq 0} f^i(\perp)$$

# Theorem/Lemma/Corollary/Proof

Lemma (Lemma Name)

$$x + y = y + x$$

Corollary (Corollary Name)

*There's no right rectangle whose sides measure 3cm, 4cm, and 6cm.*

Proof (Theorem 1).

$$\omega + \phi = \epsilon$$



*Thank You*

Yao, A. C. (1982). “Protocols for Secure Computations”. In: *Proceedings of the 23rd Annual Symposium on Foundations of Computer Science*. SFCS '82. USA: IEEE Computer Society, pp. 160–164.