CUHK Beamer Template

Sample Slides

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Itemize Tests

- One: *Two* **Three**
  - l e t t e r s p a c i n g
  - underlining
  - ~~striking out~~
  - highlighting
  - CAPITALS, Small Capitals
  - Box
- Test Test Test

Multi-Columns

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

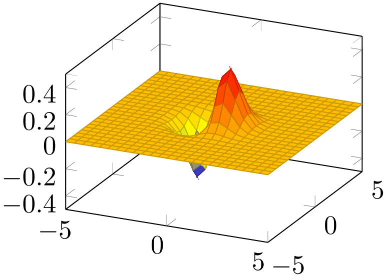

Figure: Plot $z = x(-x^2 - y^2)$

中文测试

- 这是简体中文: **加粗** + <u>下划线</u>
    - 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。

中文測試

- 這是繁體中文: **加粗** + <u>下劃線</u>
  - 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。

Citation Tests

- Yao's Millionaires' problem[1]

[1] 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.

Algorithm Test

Algorithm 1: Basic algorithm for Abstract Interpretation

Input: Control Flow Graph: CFG

Output: Invariant: $State$

initialization:

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

  $State[n] \leftarrow \bot$ otherwise

$WorkList \leftarrow \texttt{Entry}(\mathit{CFG})$

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

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

  $new\_state \leftarrow \texttt{Transfer}(\mathit{State[n]})$

  foreach $succ \in \texttt{Successors}(\mathit{CFG}, n)$ **do**

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

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

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

Code Test

```rust
fn main() {
    println!("Hello World!");
}
```

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

Math Test

1. Symbols: $\alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \nu, \xi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$;
2. Symbols: $f'', \sqrt{a}, \overrightarrow{a}, \subseteq, \supseteq$
$$\int, \iint, \iiint, \iiiint, \oint$$
3. Complex equation:
$$\lim_{x \to 0^+} \lim_{y \to +\infty} \frac{\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n} \sum_{m=0}^{\infty} \frac{1}{n2^m + 1} \int_0^{x^2} \frac{\pi \left(\sqrt[4]{1+t} - 1 \right) \sin t^4}{\sum_{n=1}^{\infty} \frac{\left((n-1)!\right)^2 (2t)^{2n}}{(2n)!} \int_0^1 \frac{(1-2x)\ln(1-x)}{x^2 - x + 1} \mathrm{d}x} \mathrm{d}x}{x^2 (x - \tan x) \ln(x^2+1) \left[\left(\frac{2 \arctan \frac{y}{x}}{\pi} \right)^y - 1 \right]} = \frac{27}{32}$$

Theorem/Lemma/Corollary/Proof

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 $f : L \to L$ 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).

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

Thank You

References I

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.