

# Your Presentation

You 韩喆

Where You're From

Date of Presentation

# 英配中程序

## — 标准英文段落/句子生成

# Introduction

- ▶ Your introduction goes here! 是韩喆
- ▶ Use `itemize` to organize your main points.

## Examples

Some examples of commonly used commands and features are included, to help you get started.

# Tables and Figures

1. Use `tabular` for basic tables — see Table 4, for example.
2. You can upload a figure (JPEG, PNG or PDF) using the files menu.
3. To include it in your document, use the `includegraphics` command (see the comment below in the source code).

表: An Example table

Apples	1	2
Oranges	3	4

# Readable Mathematics

Let  $X_1, X_2, \dots, X_n$  be a sequence of independent and identically distributed random variables with  $E[X_i] = \mu$  and  $\text{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_i^n X_i$$

denote their mean. Then as  $n$  approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .

# Slide 1

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## Goal

Main goal that we want to prove.

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- ▶ Something.



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- ▶ Something.
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- ▶ and more!.

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Main goal that we want to prove.

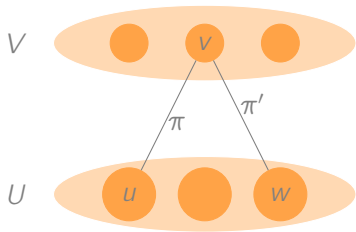
- ▶ Something.
- ▶ Something more.
- ▶ and more!.

## Relaxed Goal

relaxation

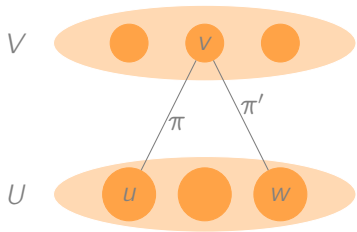
# NAE PCP Verifier from Label Cover

using Long Code Reduction

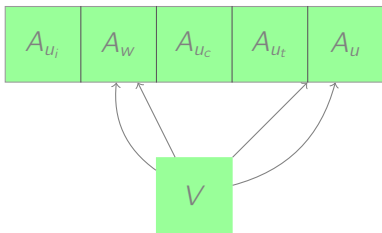


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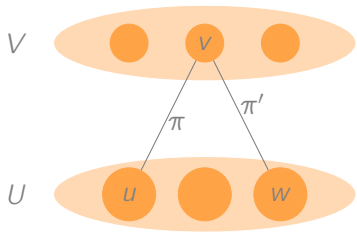


$$A_u : (\mathbb{F}_2)^{\mathbb{F}_2^{3r}} \rightarrow \mathbb{F}_2$$

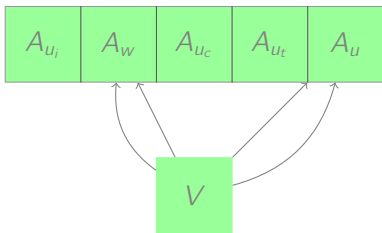


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## ► Query

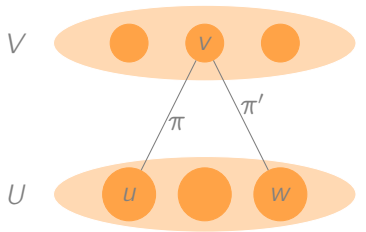
1.  $A_u(e), A_u(e + f \circ \pi + 1 + \eta)$
2.  $A_w(e'), A_w(e' + f \circ \pi' + \eta')$

## ► Where

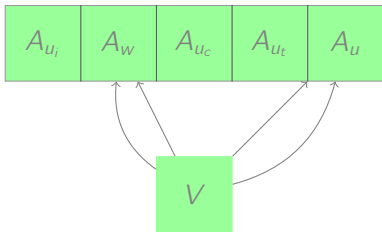
1.  $e, e' : \mathbb{F}_2^{3r} \rightarrow \{0, 1\}, f : \mathbb{F}_2^r \rightarrow \{0, 1\}$
2.  $\eta, \eta'$  from noise distribution.

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using Long Code Reduction



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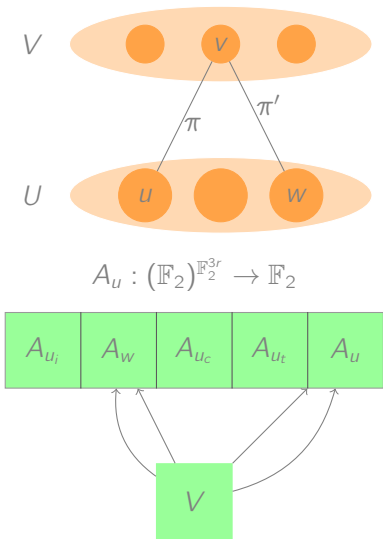
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- Correct proofs are Long Code encodings of labels to  $U$  given by

$$A_u = (f(a))_{f \in (\mathbb{F}_2)^{\mathbb{F}_2^{3r}}}$$

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**Bottleneck! :** Proof size is  $2^{2^{3r}} n^r$ .  
Cannot go beyond  $r = O(\log \log n)$ .