

SMU Presentation Template

Subtitle

Author: Felix Nie

School of Computing and Information Systems

email@smu.edu.sg

Table of Contents

- 1 Motivation
- 2 Theory
- 3 Testing
- 4 Conclusion

Title

To use this template, just edit and add slides!

There are 3 color themes prepared for you under **Headline and Central Footer** section.

Check the color design of your school when customizing the theme:

<https://www.smu.edu.sg/about/university-brand-identity>

The remainder of these slides serves as an example of the features you can use: footnotes, citations, columns, mini pages, bullets, links, code, maths, etc.

Intra-frame Footnotes and Citations I

Citation in Beamer works slightly differently from conventional cites as Beamer rewrites its footnote and citation functions. A common issue is the duplication of footnotes in a frame when using `footcite`.

This paper¹, that paper², and another paper³.

And this paper⁴, that paper⁵, and another paper⁶ again.

¹ 1, "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

² 2, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

³ 3, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

⁴ 1, "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

⁵ 2, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

⁶ 3, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

Inter-frame Footnotes and Citations I

Another issue with `footcite` is the unwanted continuation of the footnote index.

This paper⁷, that paper⁸, and another paper⁹.

And this paper¹⁰, that paper¹¹, and another paper¹² again.

⁷1, "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

⁸2, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

⁹3, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

¹⁰1, "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

¹¹2, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

¹²3, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

Intra-frame Footnotes and Citations II

This template provides a workaround for these issues. Let's use the customized command `firstcite` when citing a reference in a frame for the first time, and `secondcite` for the following citations.

This paper¹, that paper², and another paper³.

And this paper¹, that paper², and another paper³ again.

¹ Harshman et al., "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

² Hitchcock, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

³ Carroll and Chang, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

Inter-frame Footnotes and Citations II

This workaround works for the inter-frame scenario as well.

This paper¹, that paper², and another paper³.

And this paper¹, that paper², and another paper³ again.

¹ Harshman et al., "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis", 1970.

² Hitchcock, "The Expression of a Tensor or a Polyadic as a Sum of Products", 1927.

³ Carroll and Chang, "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition", 1970.

Columns

And Graphics

Check this slide to see how columns made the formatting look nice.



Bullets

You can use bullets too:

- Like this one
- & this one

Sub-bullets and Links

- You can also nest sub-bullets
 - Sub-bullet 1
 - Sub-bullet 2
 - Sub-bullet 3
 - Sub-bullet 4

Below is a button that links to a slide in the appendix

► Go to graphs

Code and Mathematics

Here is a made-up equation:

$$\hat{A} = \bar{m} - \hat{m}_S$$

Notice how these buttons are centered and evenly spread out:

[▶ Go to terms](#)[▶ Go to code](#)[▶ Go to theorems](#)

Numbered Bullets

- 1 Instead of bullets, you can index by number too
- 2 Like this!

Blocks

Block Title

Block 1

Example Block Title

Block 2

Alert Block Title

Block 3

Block without a title

Conclusion

This is the last numbered slide in the Table of Contents.

Clicking the central bottom link will switch between the title and this slide.

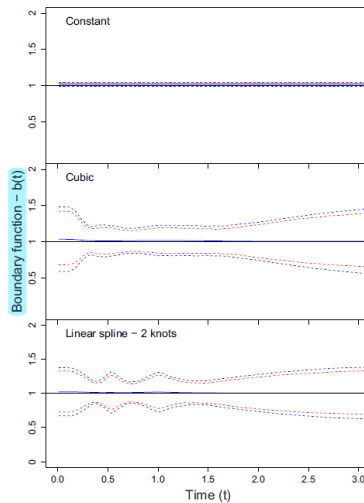
Questions?

References I

- [1] Richard A Harshman et al. "Foundations of the PARAFAC procedure: Models and conditions for an" explanatory" multimodal factor analysis". In: *UCLA Working Papers in Phonetics* 16 (1970), pp. 1–84. ISSN: 00360236. DOI: 10.1134/S0036023613040165.
- [2] Frank L. Hitchcock. "The Expression of a Tensor or a Polyadic as a Sum of Products". In: *Journal of Mathematics and Physics* 6.1-4 (1927), pp. 164–189. ISSN: 0097-1421. DOI: 10.1002/sapm192761164.
- [3] J Douglas Carroll and Jih-Jie Chang. "Analysis of individual differences in multidimensional scaling via an n-way generalization of "Eckart-Young" decomposition". In: *Psychometrika* 35.3 (1970), pp. 283–319. ISSN: 00333123. DOI: 10.1007/BF02310791.

Appendix - A figure

◀ Return to presentation



Some Estimators:

- Drift: $\hat{\delta}$
- Boundary: $\hat{b}(t)$

Some Variables:

- \hat{V}
- \hat{m}_S
- \bar{m}
- $m_J(\tau)$

◀ Return to presentation

Appendix - Code Blocks

```
1 \begin{itemize}
2 \item A \item B
3 \item C
4 \begin{itemize}
5 \item C-1
6 \end{itemize}
7 \end{itemize}
```

- A
- B
- C
 - C-1

```
1 \begin{enumerate}
2 \item A \item B
3 \item C
4 \end{enumerate}
```

```
1 \begin{enumerate}
2 \item A \item B
3 \item C
4 \end{enumerate}
```

◀ Return to presentation

Appendix - Theorems

1 A single-line equation

$$J(\theta) = \mathbb{E}_{\pi_\theta}[G_t] = \sum_{s \in \mathcal{S}} d^\pi(s) V^\pi(s) = \sum_{s \in \mathcal{S}} d^\pi(s) \sum_{a \in \mathcal{A}} \pi_\theta(a|s) Q^\pi(s, a)$$

2 A multi-line equation with numbering

$$\begin{aligned} Q_{\text{target}} &= r + \gamma Q^\pi(s', \pi_\theta(s')) + \epsilon \\ \epsilon &\sim \text{clip}(\mathcal{N}(0, \sigma), -c, c) \end{aligned} \tag{1}$$

◀ Return to presentation