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Overview

Motivation

A model for:

- Link prediction or community detection in social networks.
- Objects with coupling relations along time(serial coupling relations).
- Capturing some aspects(infinite, dynamic, mixed-membership and data-driven inference).

Motivation(cont.)

- Infinite: We do not have to define the number of communities before hand. It can prevent under or over fitting problem.
- Dynamic: The number of communities can change over time.
- Mixed-membership: one node can belongs to multiple communities.
- Data-driven inference: model bases on data only.

Litarature review

IRM

Infinite Relation Model(Kemp et al. 2006) cluster nodes into different groups based on their pairwise and directional binary interactions.

- Infinite.
- Not take into account changing with time.
- One node can only belong to one community.
- Data-driven.

dIRM

Dynamic Infinite Relation Model(Ishiguro et al. 2010)

- Infinite.
- Changing with time.
- One node can only belong to one community.
- Data-driven.

Litarature review(cont.)

MMSB

Mixed-Membership Block Model(Airoldi et al. 2008)

- Not Infinite.
- Not take into account changing with time.
- One node can belong to multiple community.
- Data-driven.

LFRM

Latent Feature Relation Model(Miller et al. 2009)

- Infinite.
- Does not take into account changing with time.
- One node can belong to multiple community.
- Data-driven.

Paragraphs of Text

Sed iaculis dapibus gravida. Morbi sed tortor erat, nec interdum arcu. Sed id lorem lectus. Quisque viverra augue id sem ornare non aliquam nibh tristique. Aenean in ligula nisl. Nulla sed tellus ipsum. Donec vestibulum ligula non lorem vulputate fermentum accumsan neque mollis.

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Bullet Points

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Aliquam blandit faucibus nisi, sit amet dapibus enim tempus eu
- Nulla commodo, erat quis gravida posuere, elit lacus lobortis est, quis porttitor odio mauris at libero
- Nam cursus est eget velit posuere pellentesque
- Vestibulum faucibus velit a augue condimentum quis convallis nulla gravida

Blocks of Highlighted Text

Block 1

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Block 2

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Block 3

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Multiple Columns

Heading

1. Statement
2. Explanation
3. Example

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Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Theorem

Theorem (Mass–energy equivalence)

$E = mc^2$

Verbatim

Example (Theorem Slide Code)

```
\begin{frame}
\frametitle{Theorem}
\begin{theorem}[Mass--energy equivalence]
$E = mc^2$
\end{theorem}
\end{frame}
```

Figure

Uncomment the code on this slide to include your own image from the same directory as the template .TeX file.

Citation

An example of the `\cite` command to cite within the presentation:

This statement requires citation [Smith, 2012].

References

John Smith (2012)

Title of the publication

Journal Name 12(3), 45 – 678.

The End