

# TRANSFORMS TO IMPROVE FIT AND PREDICTION (POWER TRANSFORMATION ON THE REGRESSOR VARIABLES BOX-TIDWELL PROCEDURE)

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# OVERVIEW

## 1. Intro

- Background

## 2. Motivation

## 3. Model

## 4. Data and Method

## 5. Conclusion

# INTRO

## BULLET POINTS

- ▶ Most engineers are lazy ... and that is often a good thing
  - ▶ (*lazy = to do things in the most efficient way*)
- ▶ Engineers are terrible story tellers ... they prefer content to form
- ▶ Readers are lazy ... need self contained and easy to read material
- ▶ L<sup>A</sup>T<sub>E</sub>X can help

# MOTIVATION

## 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.

Sed diam enim, sagittis nec condimentum sit amet, ullamcorper sit amet libero. Aliquam vel dui orci, a porta odio. Nullam id suscipit ipsum. Aenean lobortis commodo sem, ut commodo leo gravida vitae. Pellentesque vehicula ante iaculis arcu pretium rutrum eget sit amet purus. Integer ornare nulla quis neque ultrices lobortis. Vestibulum ultrices tincidunt libero, quis commodo erat ullamcorper id.

# MODEL

## VERBATIM

## EXAMPLE (THEOREM SLIDE CODE)

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



# T<sub>E</sub>X



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- ▶ T<sub>E</sub>X was created by Donald Knuth in 1978
- ▶ A typesetting macro language and compiler:
  - ▶ Readable mathematics
  - ▶ Better hyphenation
  - ▶ Optimized justification
  - ▶ Font management tools
  - ▶ Cross-compatibility
- ▶ Code – Compile – Visualize

# DATA AND METHOD

## FIGURE



FIGURE 1: CUHK Business School

# EDITORS AND COMPILERS

- ▶ To install in your machine
  - ▶ Check `latex-project.org`
- ▶ In the cloud
  - ▶ ShareLatex : `www.sharelatex.com`
  - ▶ Overleaf : `www.overleaf.com`

PLEASE GIVE ME MB OF SPACE ON OVERLEAF

<https://www.overleaf.com/signup?ref=d1806010dac8>

# MULTIPLE COLUMNS

## Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

# CONCLUSION

# TABLE AND EQUATION

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

TABLE 1: Table caption

$$\begin{bmatrix} a_{11} & \cdots & a_{1n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \cdots & a_{nn} \end{bmatrix}^T = \begin{bmatrix} a_{11} & \cdots & a_{n1} \\ \vdots & \ddots & \vdots \\ a_{1n} & \cdots & a_{nn} \end{bmatrix} \quad (1)$$

# REFERENCES



John Smith (2012)

Title of the publication

*Journal Name* 12(3), 45 – 678.



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