TITLE OF OUR PAPER

FIRST LAST AND MARKO BUDIŠIĆ

Abstract. Great stuff.

Contents

1. Introduction

2. Problem description

3. Main technique

3.1. **Theory.**

3.2. **Implementation.** This is how you include some code[1]:

```
for k = 2:9
    u[k] = u[k-1] - 2*u[k] + u[k+1];
end
```

4. Results

Figure 1 was made purely in LaTeX.[2]

5. Discussion and Conclusions

Example of a cited paper [1].

[1] For more see https://www.overleaf.com/learn/latex/Code_listing#Using_listings_to_highlight_code.

[2] For more such plots see http://pgfplots.sourceforge.net/gallery.html

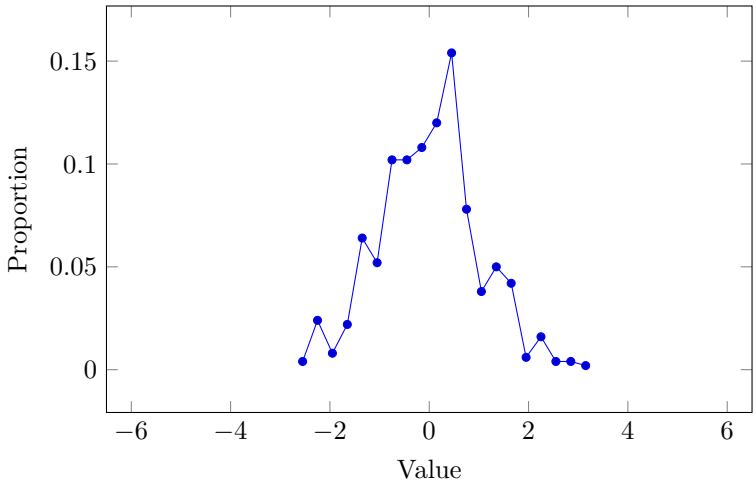


FIGURE 1. Graph made directly in LaTeX.

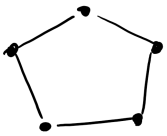


FIGURE 2. This is a graph.

REFERENCES

[1] Micah John Muller Hill, *On a spherical vortex*, Philosophical Transactions of the Royal Society of Science (1894).

APPENDIX A. HOW TO USE LATEX?

Example of notes. Some math $\int_0^T x(t)dt$. If you'd like to put an equation in its own line, this is how you do it:

$$x(t) = x_0 + \int_0^T f(x(\tau))d\tau \tag{1}$$

You can also refer to an equation that you made, if you gave it a label, just like this (1).

If you want to include an image, this is how you do it. And you can also refer to the Figure 2.

All the help you need is found here: https://en.wikibooks.org/wiki/LaTeX**.**

You can create a bulleted list

- First
- Second
- Third

You can also enumerate

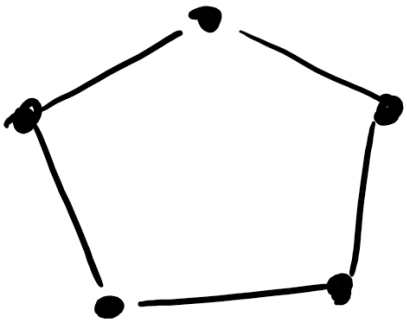


FIGURE 3. Image

(1) First
(2) Second
(3) Third

If you want a tighter itemization, use `compactitem` and `compactenum`

- First
- Second
- Third

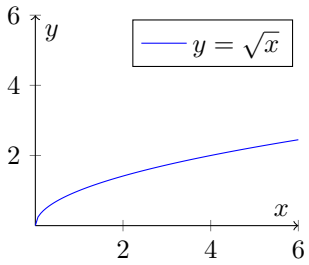
(1) First
(2) Second
(3) Third

Most people get matrices wrong (overly complicated) in LaTeX. This is the right way:

$$\begin{bmatrix} 1 & 2 \\ * & 3 \end{bmatrix}$$

More details are here: https://en.wikibooks.org/wiki/LaTeX/Mathematics#Matrices_and_arrays.

LaTeX (with help of pgfplot) can also create graphs of functions.



Some **important formatting tips**:

- Please make sure to use operator notation (with backslashes) when appropriate.[3]

[3] https://en.wikibooks.org/wiki/LaTeX/Mathematics#Operators

- There's a lot of bad advice on how to write matrices. Here's the correct way: https://en.wikibooks.org/wiki/LaTeX/Mathematics#Matrices_and_arrays
- Mixing text and equations is another sore spot: https://en.wikibooks.org/wiki/LaTeX/Mathematics#Adding_text_to_equations
- Tidy multiline equations (use `align` instead of `eqnarray`)[4] https://en.wikibooks.org/wiki/LaTeX/Advanced_Mathematics#align_and_align.2A
- Annotating parts of equations using braces https://en.wikibooks.org/wiki/LaTeX/Advanced_Mathematics#Above_and_below
- Never use manual linebreak `\\` in text (outside `align`,`bmatrix` and other similar multiline formula environments). If you think you need it, you're wrong.[5] Instead use an empty line (to break a paragraph), or displayed equations using a pair of `$$` or `\[`,`\]` (preferred).

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[4] This is an official guidance from TeX community https://texfaq.org/FAQ-eqnarray
[5] https://en.wikibooks.org/wiki/LaTeX/Paragraph_Formatting#Manual_breaks