TITLE OF OUR PAPER

FIRST LAST AND MARKO BUDIŠIĆ

ABSTRACT. Great stuff.

CONTENTS

1. INTRODUCTION

2. PROBLEM DESCRIPTION

3. MAIN TECHNIQUE

4. RESULTS

Figure 1 was made purely in LaTeX.[1]

5. DISCUSSION AND CONCLUSIONS

Example of a cited paper [1].

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).

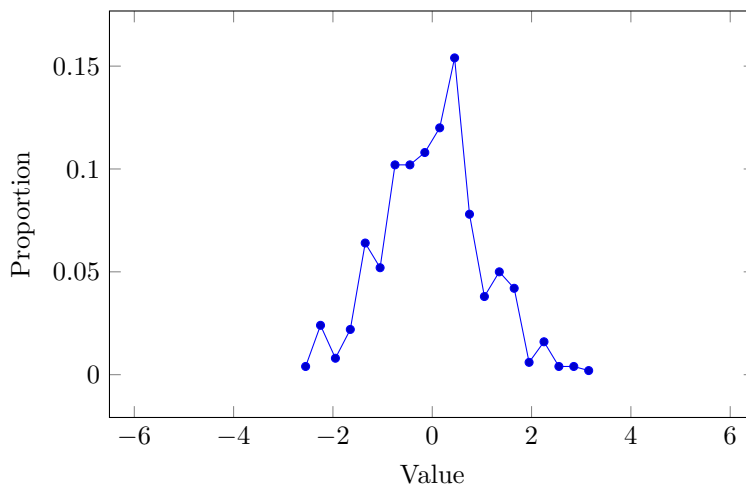[1] For more such plots see http://pgfplots.sourceforge.net/gallery.html
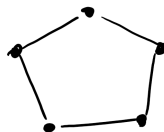
FIGURE 1. Graph made directly in LaTeX.

FIGURE 2. This is a graph.

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

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

If you want a tighter itemization, use `compactitem` and `compactenum`
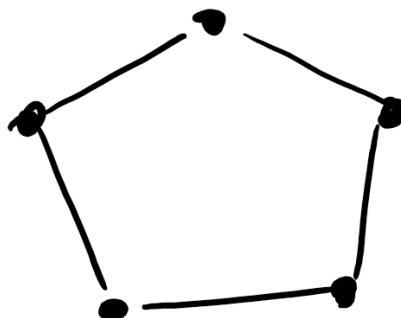- First
- Second
- Third
(1) First
(2) Second
(3) Third

FIGURE 3. Image

Most people get matrices wrong (overly complicated) in LATEX. This is the right way:
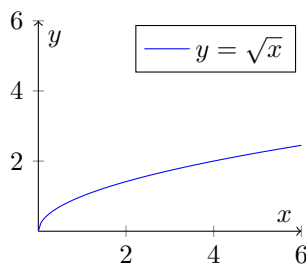
$$\begin{bmatrix} 1 & 2 \\ * & 3 \end{bmatrix}$$

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

This is how you include some code[2]:

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

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]
- 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

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

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

- 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).

Department of Mathematics, Clarkson University, Potsdam, NY
Email address: email@clarkson.edu

Department of Mathematics, Clarkson University, Potsdam, NY
Email address: mbudisic@clarkson.edu
URL: http://people.clarkson.edu/~mbudisic

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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