

Partisanship and Its Effects on Inter-galatic Societies

A Research Proposal Submitted for Full Registration of a PhD in Political Science

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I Introduction

Copyright notice This document and the figures therein are licensed under the Creative Common BY-SA 4.0 Licence.

This document is suitable for academic reports. You can always replace the logo of Massey University with that of yours. If you can, try to find or create a vectorised graphic for the logo. Vectorised logos of 8 universities in NZ plus Unitec, as well as the method for extracting the logo of other universities are provided here: https://www.io.ac.nz/blog/nz-uni-logos-vector/. Some useful Latex tips and tricks are given below.

1 Citation

You can cite like this:

- "\cite{Einstein1905}" gives you [Ein05] for a single citation
- "\cite{Goossens1993, Knuth2000}" gives you [GMS93; Knu] for multiple citation
- "\cite[Pg. 42]{Einstein1905}" gives you [Ein05, Pg. 42] for extra information such as page number (quite useful if you are citing a whole book or a long paper)

2 Equation

2.1 One equation without number

This is an equation without numbering. You cannot reference it.

$$\mathfrak{a} = \mathfrak{b}$$

2.2 One equation with number

Equation I.1 is the same equation with numbering, so you can reference it as usual.

$$a = b \tag{I.1}$$

Eq I.2 is a case equation.

$$f(n) = \begin{cases} a & {\rm if} \quad 0 < n \\ b & {\rm if} \quad n = 0 \\ c & {\rm if} \quad 0 < n \le p \\ d & {\rm if} \quad n > p \end{cases} \eqno(I.2)$$

2.3 Multiple equations without number

This is a set of equation, aligned by the equal sign (=). No reference

$$a = b$$

 $c = d$

2.4 Multiple equations with one number

I.3 is the same set of equation with one single equation number for the whole set.

$$a = b$$
 (I.3)

$$c = d$$

2.5 Multiple equations with one number each equation

I.4 is a set of equations, each assigned an equation number. You can reference them directly like this: I.4a and I.4b

$$a = b \tag{I.4a}$$

$$c = d \tag{I.4b}$$

2.6 Remove number from one equation in the set

If you want to omit the number for any particular equation, end it with \nonumber. Now only Eq. I.5 has a number while the one before it does not.

$$a = b$$

$$c = d \tag{I.5}$$

3 Useful shortcuts

3.1 Todo list

This is how you insert a to do item:

To do: convert the code in Code Block 1 to Java

3.2 Missing figure

Figure 1 is a missing figure.

3.3 Direct quote

And here is a direct quote:



Figure 1: This is to remind you to insert an actual figure here before submitting this report

There are many people who feel that it is useless and futile to continue talking about peace and non-violence against a government whose only reply is savage attacks on an unarmed and defenseless people.

Nelson Mandela

3.4 Definition

A definition:

Integration The process of finding a function, given its derivative, is called anti-differentiation (or integration). If F'(x) = f(x), we say F(x) is an anti-derivative of f(x).

4 Figures

4.1 Code block

Code block 1 shows the Hello World example written in C. You can set different colour scheme

for comments, keywords and strings in setup.tex.

```
1 #include <stdio.h>
2 #define N 10
3 /* Block
4 * comment */
5
6 int main() {
7 int i;
8
9 // Line comment.
10 puts("Hello world!");
11
12 for (i = 0; i < N; i++) {</pre>
```

```
13 puts("LaTeX is also great for programmers!");
14 }
15
16 return 0;
17 }
```

```
Code block 1: Hello world in C
```

4.2 A graph

To achieve best quality, you should always insert vectorised figures. This can be achieved with figures exported from Matlab or hand-drawn in Adobe Illustrator, Inkscape, or Corel Draw. A detail tutorial is available at https://www.io.ac.nz/blog/matlab-to-latex/. For an example, have a look at Fig. 2. The whole figure is plotted in Matlab, then Inkscape separate the graph part (lines and curves...) to a pdf file and the text part to a pdf_tex file, so that the text is actually rendered by Latex to maintain consistency in the document.



Figure 2: Equal loudness contour according to ISO 226:2003

4.3 Two graphs, side by side

Figure 3 shows two subfigure side by side. The total width span one whole line, with the first figure occupies 47.5% total width and pushed all the way to the left, the second figure occupies 47.5% total width and pushed all the way to the right, the space between them is 5% total width. You can cite the subfigures independent from the whole figure, like this: \ref{fig:fig3a} (to get 3a), or just the subfigure's part of the reference number, like this: \subref{fig:fig3a} (to get a)



(a) Distance calculated by a l_p -norm is performed (b) Distance calculated by a DTW is performed on a on a linear element-wise basis. warped path.

Figure 3: The alignment of elements for measuring distance between two sequences A (top blue line) and B (bottom black line) by a) ℓ_p -norm distances and b) DTW. Red dots are where the warping occurs.

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4.4 Figure wrapped by text

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Figure 4: Matching sequences that have non-correspondent segment.

magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Bibliography

- [Ein05] Albert Einstein. "Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]". In: Annalen der Physik 322.10 (1905), pp. 891–921. DOI: http://dx.doi.org/10.1002/andp.19053221004 (cited on page 1).
- [GMS93] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The EI_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993 (cited on page 1).
- [Knu] Donald Knuth. *Knuth: Computers and Typesetting* (cited on page 1).