

1 The Title

2 By

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4 *AN ESSAY PRESENTED TO AIMS RWANDA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF*  
5 *MASTER OF SCIENCE IN MATHEMATICAL SCIENCES*



# DECLARATION

This work was carried out at AIMS Rwanda in partial fulfilment of the requirements for a Master of Science Degree.

I hereby declare that except where due acknowledgement is made, this work has never been presented wholly or in part for the award of a degree at AIMS Rwanda or any other University.

Scan your signature

Student: Firstname Middlename Surname

Scan your signature

Supervisor: Firstname Middlename Surname

# **ACKNOWLEDGEMENTS**

- 14
- 15 This is optional and should be at most half a page. Thanks Ma, Thanks Pa. One paragraph in  
16 normal language is the most respectful.
- 17 Do not use too much bold, any figures, or sign at the bottom.

# <sup>18</sup> DEDICATION

<sup>19</sup> This is optional.

# Abstract

A short, abstracted description of your essay goes here. It should be about 100 words long. But write it last.

An abstract is not a summary of your essay: it's an abstraction of that. It tells the readers why they should be interested in your essay but summarises all they need to know if they read no further.

The writing style used in an abstract is like the style used in the rest of your essay: concise, clear and direct. In the rest of the essay, however, you will introduce and use technical terms. In the abstract you should avoid them in order to make the result comprehensible to all.

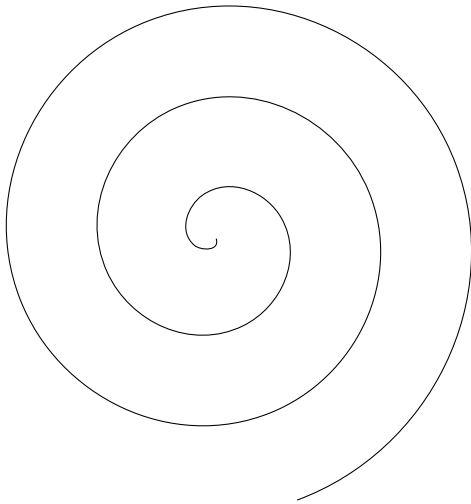
You may like to repeat the abstract in your mother tongue.

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# 1. Introduction

Explain the context of your essay topic, so that the topic itself appears motivated, natural and important.



A

Paragraphs are separated by blank lines in the  $\text{\LaTeX}$  code, and the line spacing, paragraph indentation, and paragraph spacing are set in the preamble for you, according to AIMS house style.

This is a textual citation [Shannon \(1993\)](#). And this is a parenthetical citation ([Shannon, 1993](#)). You probably want to use the latter more often.

## 1.1 Moving On

Let's demonstrate a figure by looking at Fig. [1.1](#).

Remember how to include code with `verbatim` and to fix the tabs in python in a `verbatim` environment? It may be best to have an 'include' command for code, not to have to re-edit it all the time.

```
# This program prints hello
import Scipy as S
if __name__ == "__main__":
    print "hello"
```

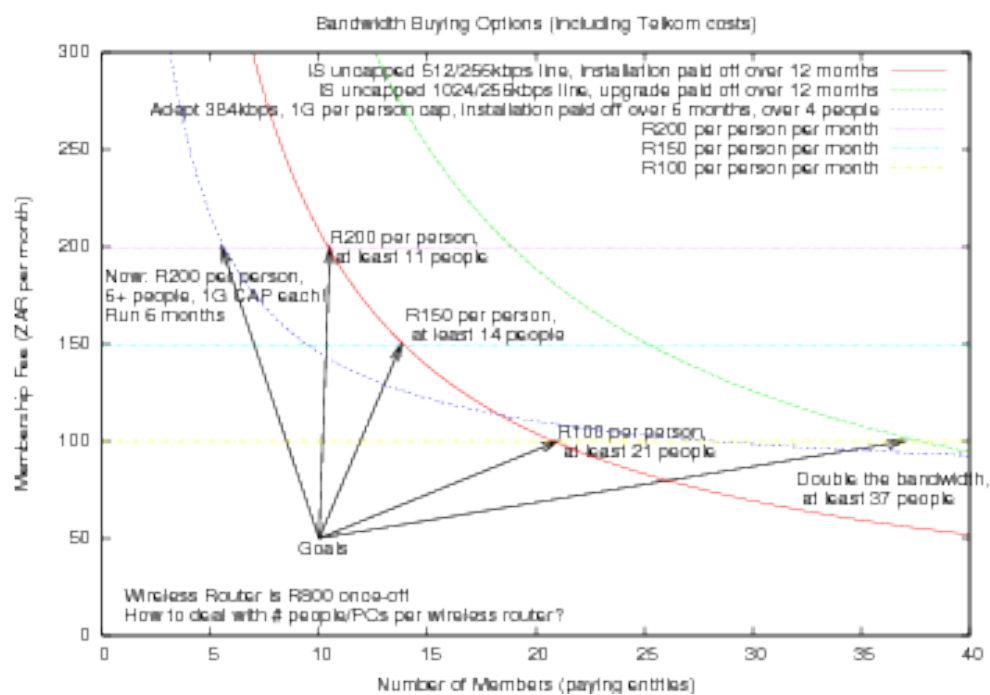


Figure 1.1: Planning community bandwidth sharing costs. Note caption capitalization.



## 65 2. The Second Chapter

66 Text text text text text text text text text text text text text text text text text text  
67 text text text text text text text text.

68 When you get stuck, don't panic. The world is unlikely to end just now. Remember you can  
69 consult your supervisor, tutor, and Blaise at agreed times.

70 **2.0.1 Theorem** (Jeff's Washing Theorem). *If an item of clothing is too big, then washing it*  
71 *makes it bigger; but if it is too small, washing it makes it smaller.*

<sup>72</sup> *Proof.* Stated without proof. But a proof would look like this.

73 Notice that no Lemmas are required in the proof of Theorem 2.0.1.

### 74 3. Third Chapter

Theorems before the chapter's first section will be dot-zero, and their numbering is completely wrong. You can avoid this by simply always starting a chapter with a section. Ta Da! It will probably help you structure your essay anyway.

78 **3.0.2 Theorem** (My Theorem2). *This is my theorem2.*

79 *Proof.* And it has no proof2.



### 80 3.1 See?

[illegible]

**3.1.1 Theorem** (My Theorem2). *This is my theorem2.*

85 *Proof.* And it has no proof2.

[illegible]

$$x = y + y \tag{3.1.1}$$

$$= 2y \tag{3.1.2}$$

<sup>89</sup> see equations (3.1.1) and 3.1.2

## 90 3.2 More

91 Here's a conjecture

92 **3.2.1 Conjecture.** The washing operation has fixed points.

93 and here's an example

94 **3.2.2 Example.** 100 FRW coin.

95 **3.2.3 This is a subsection.**

96

## **3.3 This is a section**

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## 5. Testing

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