A Very Simple $\mathbb{A}T_{E} X 2_{\mathcal{E}}$ Template

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Abstract

This is the paper's abstract ...

1 Introduction

This is a simple example of a paper written using latex that can be used for your COMP696 homeworks [1]. It has examples of how to define sections, labels, tables (Section 3.3), figures (Section 3.1), equations (Section 3.2), and references. Note that although not required, for labels I add a descriptor such as sec:xxxxx or fig:yyyy.

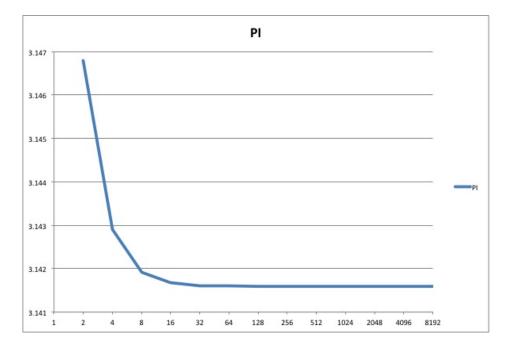
Outline The remainder of this article is organized as follows. Section 2 gives account of previous work. Our new and exciting results are described in Section 3. Finally, Section 4 gives the conclusions.

2 Previous work

A much longer $\mathbb{A}T_{\mathbf{E}} X 2_{\mathcal{E}}$ example was written by Gil [2].

3 Results

In this section we describe the results.



3.1 Figure Example

Figure 1: Calculation of PI as a function of intervals

3.2 Key Model Features - Equation Example

The section shows how to insert a numbered equation into your document. This feature is also built into basic LaTex. There are more complicated packages, but you can do a lot with the basic packages.

Governing Equations: GCCOM uses non-dimensional equations which helps to simplify the equations and reduce complexity. GCCOM models solves the following momentum equation (in dimensionless form):

$$\frac{\partial u_i}{\partial t} + u_j \frac{\partial u_i}{\partial x_i} + \frac{\partial p}{\partial x_i} + \frac{1}{Re} \frac{\partial^2 u_i}{\partial x_i^2} + \frac{1}{Ro} \epsilon_{i3} u_j + \beta \delta_{i3} = 0$$
(1)

The terms above are defined as the momentum, advection, pressure, diffusion, Coriolis force, and buoyancy.

Table 1: Table of PI data

Intervals	PI	Error
2	3.1623529411764704	0.0207602875866773
4	3.1468005183939427	0.0052078648041496
8	3.1428947295916885	0.0013020760018954
16	3.1419181743085600	0.0003255207187669
32	3.1416740337963365	0.0000813802065434

3.3 Table Example

This is an example of how to build a simple table. Table 1 showing the PI data, with columns and headings. The data is plotted in Figure 1

4 Conclusions

We worked hard, and achieved very good results.

5 References

- [1] Mary P. Thomas. Advanced parallel computing, 2015.
- [2] Joseph (Yossi) Gil. LATEX $2_{\mathcal{E}}$ for graduate students. manuscript, Haifa, Israel, 2002.