Master's Thesis

Theoretical Studies on Low-Speed Calculation Algorithms of π Utilizing the Sun and the Moon

Hanako Sentan

Program of Information Science and Engineering
Graduate School of Science and Technology
Nara Institute of Science and Technology

Supervisor: Professor XXX
xxx Lab. (Division of Information Science)

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A Master's Thesis
submitted to Graduate School of Science and Technology,
Nara Institute of Science and Technology
in partial fulfillment of the requirements for the degree of
Master of Engineering

Hanako Sentan

Thesis Committee:
Supervisor   XXX XXX
              (Professor, Division of Information Science)
              XXX XXX
              (Professor, Division of Information Science)
              XXX XXX
              (Associate Professor, Division of Information Science)
              XXX XXX
              (Associate Professor, Graduate School of YYY, YYY University)

Theoretical Studies on Low-Speed Calculation Algorithms of π Utilizing the Sun and the Moon[1]

Hanako Sentan

Abstract

The calculation of π has been paid much attention since human beings appeared on the earth.

This thesis presents novel low-speed algorithms to calculate π utilizing the sun and the moon.

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Keywords:

π, astronomy, mathematics, computer, algorithm

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[1]Master's Thesis, Graduate School of Science and Technology, Nara Institute of Science and Technology, October 22, 2022.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

This document is a model and instructions for English dissertation.

Chapter 2

Prepare your dissertation

Here, we will explain what you need to do when writing a dissertation.

2.0.1 Structure of dissertation

The submitted dissertation must meet the following items.

1. Title

2. Author's name

3. Affiliation (Program)

4. Abstract

5. Keywords (4-5 words)

6. Thesis committee

7. Text (including "introduction" and "conclusion")

8. Acknowledgements (if necessary)

9. Reference

10. Publication list (if necessary)

11. Appendix (if necessary)

12. All figures, photographs, tables, and their captions

2.0.2 Abstract and Keyword

Make an English abstract and English keywords. In addition, the title, author, thesis committee, and affiliation are shown.
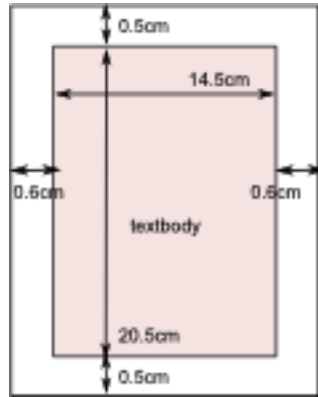
Figure 2.1: Page layout.

Table 2.1: Table type styles

Table	Table column head		
Head	Table column subhead	Subhead	Subhead
copy	More table copy		

2.0.3 Page layout

The page layout is shown in Fig. 2.1. The top, bottom, left, and right margins are 0.5 cm, 0.5 cm, 0.6 cm, and 0.6 cm, respectively. The height and width of the textbody are 20.5 cm and 14.5 cm, respectively. The font size is 12 pt. The line spacing is 1.2×.

2.0.4 Figures, pictures, and tables

1. Use the figures, photographs, and tables originally created by the author. m in the figure in the text, indicate the corresponding English term in parentheses after the Japanese term if necessary.

2. Insert figures, photographs, and tables together with their Japanese and English titles at appropriate positions in the text.

3. If there are characters in the figure or photo, create them so that they can be identified by the size at the time of printing.

The examples of figure and table are shown in Fig. 2.2 and Table 2.1.

Figure 2.2: Abyssinian.

2.0.5 Reference

List and cite the references according to the style shown in Krizhevsky et al. (2012).

Chapter 3

Caution

3.0.1 Student number

The student number corresponds to the individual identification code and does not need to be included in the dissertation. Please note that if you do, there is a risk of leaking personal information in the future.

3.0.2 Thesis committee

In the case of other research institutes, the Thesis committee is described as follows, for example.XXX
XXX
(Affiliate Professor Division of Information Science, Director R&D Development Center YYY Inc.)
XXX XXX
(Affiliate Professor Division of Information Science, Professor Graduate School of ZZZ ZZZ University)
XXX XXX
(Director, R&D Development Center, YYY Inc.)

Acknowledgements

Thank you

References

Alex Krizhevsky, Ilya Sutskever, and Geoffrey E Hinton. 2012. Imagenet classification with deep convolutional neural networks. In *Advances in Neural Information Processing Systems*, volume 25. Curran Associates, Inc.

Appendices

A Appendix-1

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B Appendix-2

This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix. This is an appendix.