# On the Importance of an Atmosphere

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A thesis submitted in partial fulfillment of the requirements for the degree of

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(Atmospheric and Oceanic Sciences)

at the

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# Thesis Declaration and Approval

I, Buckingham U. BAD	GER, declare that this thesis tit	led 'On the Importance of an
Atmosphere' and the wo	rk presented in it are my own.	
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Buckingham U. BADGER		
Author	Signature	Date
I hanshy approve and no	command for accountance this wa	where postial fulfillment of the
·	commend for acceptance this wo	ork in partial fullillment of the
requirements for the deg	ree of Master of Science:	
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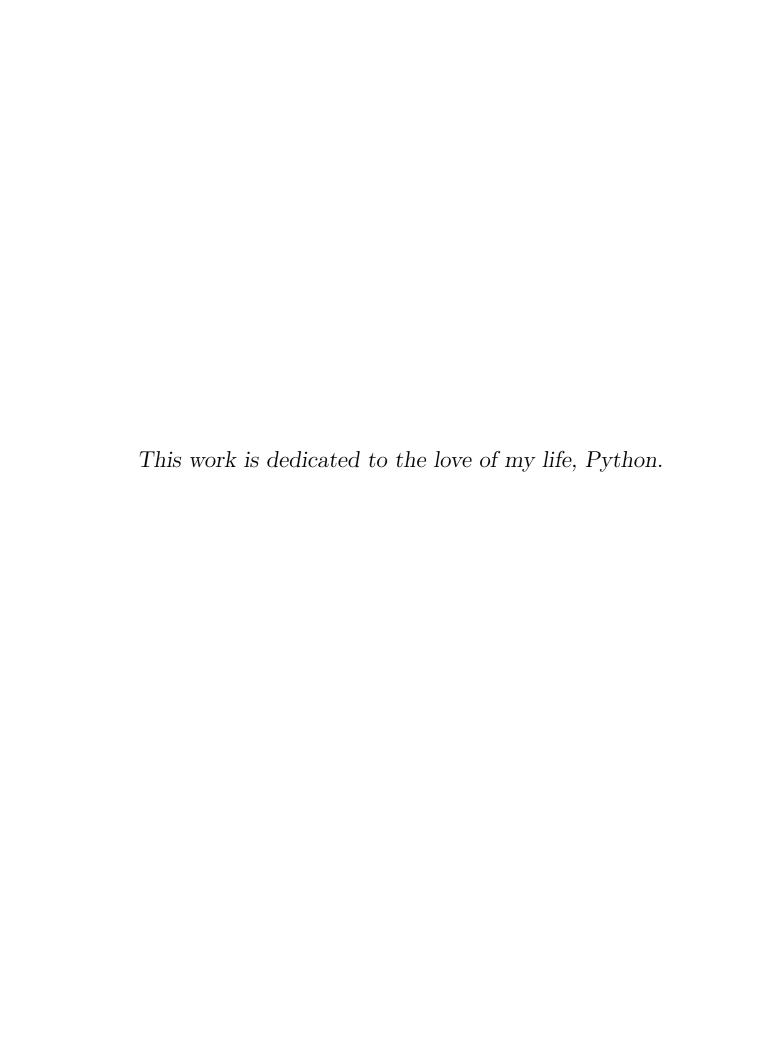
#### Abstract

#### On the Importance of an Atmosphere

by Buckingham U. BADGER

The atmosphere is a crucial part of everyday life by providing biological matter to respirate. Other planets in our solar system are characterized by a lack of atmosphere and thus remain unsuitable for life. Modeling a planet with no atmosphere resolves many of the issues plagued by modellers, especially pertaining to the issue of magnitudes of scales.

"Thanks to my solid academic training, today I can write hundreds of words on virtually any topic without possessing a shred of information, which is how I got a good job in journalism."Dave Barry



#### Acknowledgements

There are many people that made this possible.

First, my advisor advised me very well.

Second, my colleagues and flatmates were very collegial.

Finally, my mom and dad have been parental to me.

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#### Abbreviations

CPR Cloud Profiling Radar (aboard CloudSat)

MJO Madden-Julian Oscillation

TRMM Tropical Rainfall Measuring Mission

Physical Constants ix

## **Physical Constants**

Speed of Light  $c = 2.997 \ 924 \ 58 \times 10^8 \ \mathrm{ms^{-S}} \ (\mathrm{exact})$ 

Symbols x

## Symbols

a distance m

P power W (Js<sup>-1</sup>)

 $\omega$  angular frequency rads<sup>-1</sup>

#### Chapter 1

#### Introduction

#### 1.1 Preface

This is Section 1.1 that provides all of the information about my background. Be sure to check out Subsection 1.1.1 as well for more information. Please find Figure 1.1 for more information.

#### 1.1.1 Preface Postscript

Sometimes it is necessary to provide information about the background in segments.

#### 1.1.2 Postpostscript

Other areas of interest.

Blah



FIGURE 1.1: An illustration of the Afternoon Constellation (A-Train) satellite mission of NASA with the satellites' respective instruments. CloudSat is second from the left. Illustration courtesy of NASA.

#### Blah

	Header 1	Header 2
Category 1	Data 11	Data 21
Category 2	Data 12	Data 22

TABLE 1.1: We have some data here.

- In case you don't know LATEX
- 1. Tanelli et al. (2008) is relevant to the material at hand Tanelli et al. (2008).

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## Appendix A

### **Appendix of Information**

Here's information about stuff that isn't necessary in the regular chapters, but should be in the appendix.

References 6

### **Bibliography**

Tanelli, S., S. L. Durden, E. Im, K. S. Pak, D. G. Reinke, P. Partain, J. M. Haynes, and R. T. Marchand, 2008: CloudSat's Cloud Profiling Radar After Two Years in Orbit: Performance, Calibration, and Processing. *IEEE Transactions on Geoscience and Remote Sensing*, 46, 3560–3573, doi:10.1109/TGRS.2008.2002030.