

COMPUTATIONAL STATISTICS: TIME SERIES AND DATA MINING
(Spine title: Plib)
(Thesis format: Monograph)

by

Tom Smith

Graduate Program in Statistics and Actuarial Science

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

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
London, Ontario, Canada

© Tom Smith 2017

THE UNIVERSITY OF WESTERN ONTARIO
School of Graduate and Postdoctoral Studies

CERTIFICATE OF EXAMINATION

Supervisor:

.....
Dr. A. I. McLeod

Joint Supervisor:

.....
Dr. A. Manning

Supervisory Committee:

.....
Dr. W. J. Braun

.....
Dr. A. Bing

Examiners:

.....
Dr. Q. Ring

.....
Dr. W. Fing

.....
Dr. G. Hing

The thesis by

Tom Smith

entitled:

Computational Statistics: Time Series and Data Mining

is accepted in partial fulfillment of the
requirements for the degree of
Masters of Science

.....
Date

.....
Chair of the Thesis Examination Board

Abstract

This is a really silly abstract.

Keywords: Time series analysis, data mining

Contents

Certificate of Examination	ii
Abstract	iii
List of Figures	v
List of Tables	vi
List of Appendices	vii
1 Time series: Long memory	1
2 Theorems	3
2.1 Basic Theorems	3
Bibliography	4
A Proofs of Theorems	5
Curriculum Vitae	6

List of Figures

1.1 A long memory time series	1
---	---

List of Tables

1.1 A random table	1
------------------------------	---

List of Appendices

Appendix A Proofs of Theorems	5
---	---

Chapter 1

Time series: Long memory

Here is a picture of a long memory time series.

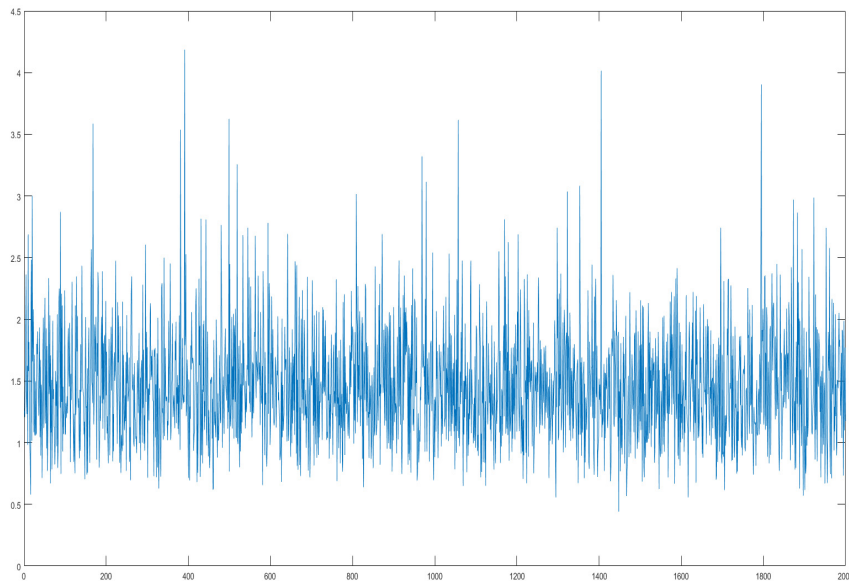


Figure 1.1: A long memory time series

Here's a table.

n	α	$n\alpha$	β
1	0.2	0.2	5
2	0.3	0.6	4
3	0.7	2.1	3

Table 1.1: A random table

$$y = mx + b \quad (1.1)$$

$$= ax + c \quad (1.2)$$

This is an un-numbered equation, along with a numbered one.

$$u = px$$

$$p = P(X = x) \quad (1.3)$$

Look at Table 1.1 and Figure 1.1 and equations 1.1, 1.2, and 1.3.

Let's do some matrix algebra now.

$$\det \left(\begin{pmatrix} 2 & 3 & 5 \\ 4 & 4 & 6 \\ 9 & 8 & 1 \end{pmatrix} \right) = 42 \quad (1.4)$$

In the equation and eqnarray environments, you don't need to have the dollar sign to enter math mode.

$$\alpha = \beta_1 \Gamma^{-1} \quad (1.5)$$

This is citing a reference [2]. This is citing another [3]. Nobody said something [1].

Chapter 2

Theorems

2.1 Basic Theorems

Theorem 2.1.1 $e^{i\pi} = -1$

Bibliography

[1] Nobody Jr. My article, 2006.

[2] ME. Oh, my! 1990.

[3] Mr. X. *Mr. X Knows BibTeX*. AWOL, 2005.

Appendix A

Proofs of Theorems

Proof of Theorem 2.1.1

$$e^{i\pi} = \cos(\pi) + i \sin(\pi) \tag{A.1}$$

$$= -1 \tag{A.2}$$

■

Curriculum Vitae

Name: Tom Smith

**Post-Secondary
Education and
Degrees:** La La School
La La Land
1996 - 2000 M.A.

University of Western Ontario
London, ON
2008 - 2012 Ph.D.

**Honours and
Awards:** NSERC PGS M
2006-2007

**Related Work
Experience:** Teaching Assistant
The University of Western Ontario
2008 - 2012

Publications:

La La