

Welcome!

Techniques and Applications of Multivariate Statistics (II)



Department of Statistics

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Questions

✓ Was the Multivariate Statistics (I) **useful and helpful** in understanding and analyzing multivariate data?

1) Not Very, 2) Normal, 3) Very

✓ How was your Multivariate Statistics (I) ?

1) **Poor**, 2) Fair, 3) Good, 4) Excellent, 5) **Perfect**

✓ Was R practice time useful and helpful to analysis your multivariate data?

1) Not Very, 2) Normal, 3) Very

✓ Do you feel your Multivariate Statistics (II) also shall give a different knowledge of analysis techniques of multivariate data?

1) **Yes**, 2) **No**, 3) **No idea**



Lectures

Undergraduate Courses ^

- Multivariate Statistics(I)
- Multivariate Statistics(II)
- Matrix Algebra(II)

Graduate Courses v

Previous v

Invited Lectures v

Multivariate Statistics(II)



- Multivariate Statistics(I)
- Multivariate Statistics(II)
- Matrix Algebra(II)

In Multivariate Statistics (II), our aim is to study some statistical analysis techniques (Discrimination and Classification Analysis(DCA), Multidimensional Scaling(MDS), Correspondence Analysis(CRA), Biplots), inferences about mean vectors and LR tests and to study MANOVA, etc. for multivariate data which are measuring the various social present situations by many variables and observations. In addition, we learn the sampling from the multivariate normal distribution like distributions of mean vector and covariance and Wishart distribution. In this lecture, we have a good chance to learn the multivariate estimation and tests. With SAS/IML(or R) practice, we will be experienced programming some algorithms related inferences in multivariate statistics.

RSS 2.0 4 건

제목

번호	제목	작성자	작성일	첨부파일	조회수
4	Welcome	최용석	2014.12.24	1	194
3	Lecture 6, Discrimination and Classification Anal	최용석	2014.12.24	1	431
2	Lecture 7, Multidimensional Scaling (MDS)	최용석	2014.12.24	1	294
1	Lecture 8, Correspondence Analysis (CRA)	최용석	2014.12.24	1	267

Choi, Y.S.(2021). Multivariate Data Analysis with R

Multivariate Statistics (I) in Spring

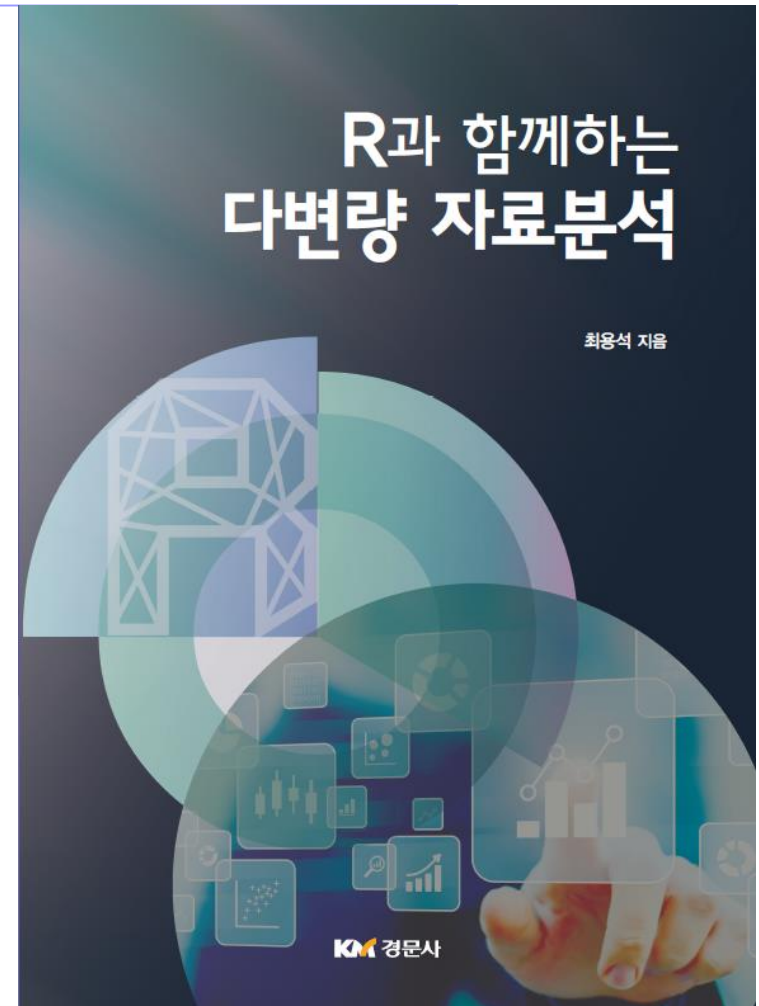
1. Multivariate Data Analysis
2. Principal Component Analysis (PCA)
3. Factor Analysis (FA)
4. Canonical Correlation Analysis (CCA)
5. Cluster Analysis (CA)

Multivariate Statistics (II) in Autumn

6. Discrimination and Classification Tree (DCA)
7. Multidimensional Scaling (MDS)
8. Correspondence Analysis (CRA)
9. Biplot
10. Shape Analysis

Visualization Techniques for Structured Data in Big Data

A. Machine Learnings: SVM and ANN



2021.03(1판 2쇄)

Practice Time Class

- When : 10: 30 ~ 11:45 AM on Tue or Thu
- Where : R 102
- Who : Live Video Lecture from Plato
- What : R codes related with each techniques
- Submit your home work after 1 week
- Check your attendance every times



Notices

✓ You ask me some questions only in English in **Plato**.



✓ You could do your home work in Korean.

✓ Put your Mobile phone  on Vibrate Mode in this class, please.

✓ Prepare and file your **handouts from my homepage** for this lecture.

✓ You will take **once(final)** examination.

✓ Submit **reports(HWs)** which are given in Practice Time via Plato.

✓ Submit your **term project** after final examination via Plato.



Term Project

Contents

✓ Title

✓ Abstract

✓ Introduction

✓ Data Description



✓ Analysis and Interpretations



✓ Conclusion



✓ References

- Independently, prepare your data for analyzing
- Consider some appropriate multivariate statistical techniques
- Make your Time Table for your project
- You can use your data which used in multivariate statistics (I)

Promise

I will provide an *interested lecture* and also *R practice time* of *multivariate techniques*.

From this, you will be able to raise your *knowledge of Multivariate Statistics (II)* till the end of the term.

Moreover, you will be qualified basically for analyzing and interpreting *Big Data (Unstructured and Structured Data)* and *Data Mining*.

I hope you will enjoy *the Multivariate Statistics (II)* which consisted of *Discrimination and Classification Tree(DCA)*, *Multidimensional Scaling(MDS)*, *Correspondence Analysis(CRA)* and *Machine Learnings(MLs)*.

