

گزارش فرصت مطالعاتی
دانشگاه نیوکاسل - استرالیا
اسفند ۹۷ تا مرداد ۹۸

مجید سرمد

دانشکده علوم ریاضی

دانشگاه فردوسی مشهد

آبان ماه ۹۸

Prof. Eric Beh – Correspondence Analysis



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Professor Eric Beh

Professor

School of Mathematical and Physical Sciences ([Statistics](#))

eric.beh@newcastle.edu.au

+921 5113



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Publications

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Book	6	Chapter	3	Journal article	77	Conference	44
Software / Code	1	Thesis / Dissertation	1				

For publications that are currently unpublished or in-press, details are shown in *italics*.

Book

(6 outputs)



NEWS - Nov 03 2016

Gender Equity PhD Opportunity

UON is part of the Athena SWAN charter and is offering a full-scholarship to advance gender equity.



The UNIVERSITY of NEWCASTLE

CA/shiny: The 7.5th try - 29 July 2019

Reading raw data from an excel file?

No

Yes

	0-9	10-19	20-29	30-39	40+
none	310	212	21	25	7
grade1	36	158	35	102	35
grade2	0	9	17	49	51
grade3	0	0	4	18	28

Double-click on a cell to edit.

Right-click on the table to delete/insert rows.

Add a column

Name

newcol6

Add

CA Type

CA: Simple Correspondence Analysis

Select the results to filter on:

Raw table

Rank of the table

Row principal coordinates

Column principal coordinates

Row standard coordinates

Column standard coordinates

Total inertia of the analysis based on Pearson chi-squared

Associated inertia in the row and column spaces for each principal axis

Weighted centered column profile

Weight matrix of the column

Results

Correspondence plot

Confidence ellipses

Scree plot

3D plot

Number of decimal places:



Raw table:

	0-9	10-19	20-29	30-39	40+
none	310	212	21	25	7
grade1	36	158	35	102	35
grade2	0	9	17	49	51
grade3	0	0	4	18	28

Row principal coordinates:

	axes1	axes2	axes3
none	-0.59	0.14	0.00
grade1	0.29	-0.40	0.01
grade2	1.26	0.26	-0.10
grade3	1.51	0.65	0.17

Column principal coordinates:

	axes1	axes2	axes3
0-9	-0.72	0.28	-0.02
10-19	-0.26	-0.27	0.04
20-29	0.47	-0.17	-0.14
30-39	0.76	-0.22	-0.03
40+	1.33	0.51	0.05

Weight matrix of the column:

	0-9	10-19	20-29	30-39	40+
0-9	0.31	0.00	0.00	0.00	0.00
10-19	0.00	0.54	0.00	0.00	0.00
20-29	0.00	0.00	0.07	0.00	0.00
30-39	0.00	0.00	0.00	0.17	0.00
40+	0.00	0.00	0.00	0.00	0.11

Weight matrix of the row:

	none	grade1	grade2	grade3
none	0.51	0.00	0.00	0.00
grade1	0.00	0.33	0.00	0.00
grade2	0.00	0.00	0.11	0.00
grade3	0.00	0.00	0.00	0.11

CA/shiny: The 7.5th try - 29 July 2019

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Results

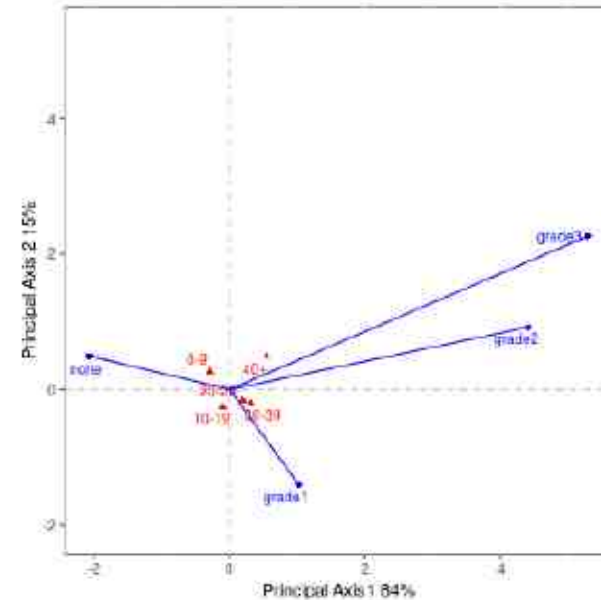
Correspondence plot

Confidence ellipses

Scree plot

3D plot

scaleplot parameter



<https://msarmad.shinyapps.io/myshinyapps/>
<http://shiny.um.ac.ir/sarmad/CA>

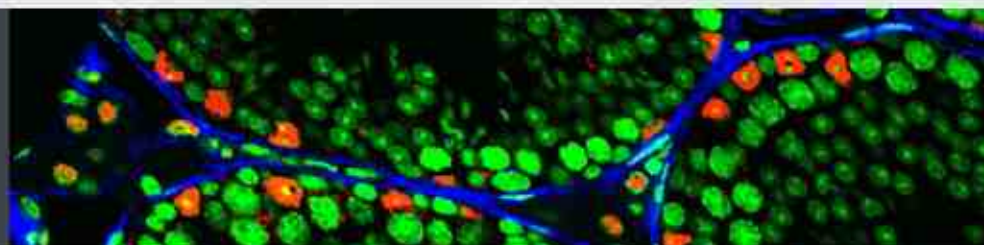
Correspondence analysis

- ? Herman Otto Hartley (Germany)
- Jean-Paul Benzécri (France)
- Michael Greenacre (Australia)
 - *Correspondence Analysis in Practice – Third Edition (2016)*
- [Eric Beh](#) (Australia) – Rosaria Lombardo (Italy)
 - *Correspondence Analysis: Theory, Methods and New Strategies (2014)*
 - *An Introduction to Correspondence Analysis (2017)*
 - *CAVariants - MCAvariants*
- François Husson (France)
 - *Exploratory Multivariate Data Analysis by Example Using R (2017)*
 - *FactoMineR*

John Rayner



Faculty of Science



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The Statistical Support Service (StatSS) provides advice on statistical methods to help university students and staff engaged in research. The service is intended to provide low cost and non-profit statistical support for University of Newcastle researchers.

We can assist researchers with:

- Study designs and surveys
- Data analysis
- Writing up statistical results
- Grant or project proposals
- Seminars/Workshops/Courses in statistics for individual or School/Discipline needs.

Midyear course **enrolments are open now**. Go to the tabs below for details.

The service is open to all Newcastle University researchers including conjoint staff. See the guidelines for use before [booking an](#)



Request an appointment



NEWS • Aug 15, 2019

Antiseptic resistance in bacteria could lead to next-



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Appointment form for Statistical Support Service

Client

Surname*

First Name*

Discipline

Faculty

--- Select Faculty ---



School

--- Select School ---



Telephone (preferred)*

Telephone (alternate)

Email Address*

Find an accredited statistician

First name

Last name

State

*** Experience**

Clear values

- Agriculture
- Data Mining
- Energy
- Epidemiology
- Geographical information
- Manufacturing
- Medical and health
- Planning
- Risk management
- Transport
- Clinical trials
- Economic modelling
- Environmental monitoring
- Finance
- Legal
- Market research
- Mining and exploration
- Quality improvement
- Social policy

Join us

SSA is the home for professionals working in statistics. A place where you belong, connect with others, advance your career and feel inspired.

Our core purpose is to connect you with great people and great opportunities, so you can be successful in your current role and with your career aspirations.

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Master of **Data Science**

Postgraduate program

Fast facts

Online

Location

[Online](#)

Start dates

Semester 1 - 24 Feb 2020

Semester 2 - 20 Jul 2020

Mode of delivery

Online

Fees

[Find information about indicative course and program fees](#)

Duration

1.5 years full-time or part-time equivalent up to 5 years maximum.

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[About this program](#)



 UON program code: 40112

Program handbook

Master of Data Science

Computational Intelligence Specialisation

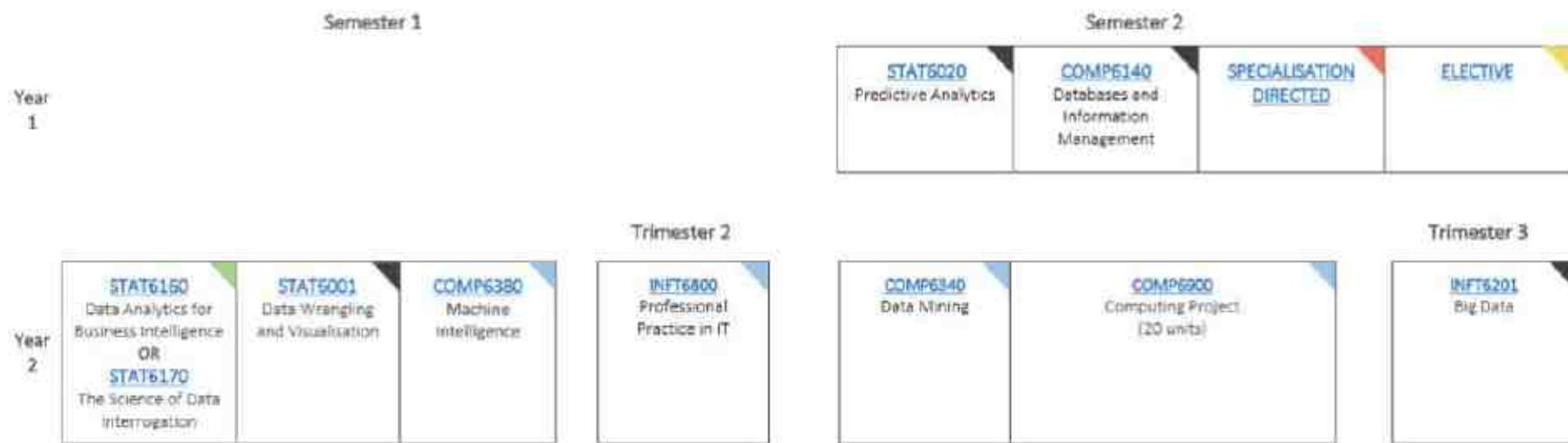


See the last page for some helpful hints & tips!

Commencing in Semester 2, 2019

Studying Online

This Program Plan is an enrolment guide to ensure you are on track to graduate. If at any time you wish to vary from this program plan seek prior advice from your [Program Advisor](#) to ensure you remain on track.



Program Plan Key: = Core = Program Directed = Compulsory Specialisation = Directed Specialisation = Elective

<http://www.sagemath.org>

https://en.wikipedia.org/wiki/Topological_data_analysis

<http://www.statstudio.net/free-tools/3d-grapher>

<https://tio.run>

<https://www.slideshare.net/jharnwell/2010-mathematics-hsc-solutions>

<https://www.newcastlepermanent.com.au/community/primary-maths-competition>

<https://www.newcastle.edu.au/course#STAT>

<https://www.manning.com/books/practical-data-science-with-r-second-edition>

https://en.wikipedia.org/wiki/Management_by_wandering_around

<https://shiny.rstudio.com/images/shiny-cheatsheet.pdf>

<https://form.jotform.co/83237429635867>

https://hdbscan.readthedocs.io/en/latest/how_hdbscan_works.html