Introduction to Multi-level Models

Contents

1 Introduction to multi-level models for correlated data

For more, see:

- David Rocke[1]'s materials from the 2021 edition of this course[2]
  - May 25 - June 1 lectures
- Other UC Davis courses:
  - EVE 225[3]: "Linear Mixed Modeling in Ecology & Evolution"
    - usually taught every other winter or spring by Kate Laskowski[4]
    - materials, including syllabus and lecture videos: https://laskowskilab.faculty.ucdavis.edu/teaching-2/
  - STA/BST 224[5]: "Analysis of Longitudinal Data"
    - usually taught every spring by Shuai Chen[6]
    - should be accessible after completing Epi 204
  - EPI 226[7] "Methods for Longitudinal & Repeated Measurement Data"
    - usually taught by Heejung Bang[8]
  - PSC 205D[9] "Multilevel Models"
  - PSC 205G[10] "Applied Longitudinal Data Analysis"
  - STA 101[11] "Advanced Applied Statistics for the Biological Sciences"
  - STA 207[12] "Statistical Methods for Research II"
  - STA 232B[13] "Applied Statistics II"
    - usually taught every winter by Jiming Jiang[14]
  - PLS 207[15]: "Applied Statistical Modeling for the Environmental Sciences"
  - EDU 236[16]: "Application of Hierarchical Linear Models in Education Research"
  - HDE 205[17]: "Longitudinal Data Analysis"
- Books:

[1] https://dmrocke.ucdavis.edu/
[2] https://dmrocke.ucdavis.edu/Class/EPI204-Spring-2021/EPI204-Spring-2021.html
[3] https://catalog.ucdavis.edu/search/?q=EVE+225
[4] https://eve.ucdavis.edu/people/kate-laskowski
[5] https://catalog.ucdavis.edu/search/?P=BST%20224
[6] https://shuaichen.weebly.com/
[7] https://catalog.ucdavis.edu/search/?P=EPI+226
[8] https://biostat.ucdavis.edu/people/heejung-bang
[9] https://catalog.ucdavis.edu/search/?q=PSC+205D
[10] https://catalog.ucdavis.edu/search/?q=PSC+205G
[11] https://catalog.ucdavis.edu/search/?q=STA+101
[12] https://catalog.ucdavis.edu/search/?q=STA+207
[13] https://www.stat.ucdavis.edu/~jiang/sta232b.html
[14] https://www.stat.ucdavis.edu/~jiang/
[15] https://catalog.ucdavis.edu/search/?q=PLS+207
[16] https://catalog.ucdavis.edu/search/?q=EDU+236
[17] https://catalog.ucdavis.edu/search/?q=HDE+205

- Dobson and Barnett (2018) Chapter 11[18]
- Vittinghoff et al. (2012) Chapter 7[19]
- Gelman and Hill (2007)
- Jiang and Nguyen (2021)
  - by UC Davis Statistics Professor and GGE faculty member Jiming Jiang[20]
- Faraway (2016)
- McCulloch et al. (2008)
- Hedeker and Gibbons (2006)
- Wakefield (2013)
- Zuur (2009)
- Diggle et al. (2013)
- Fitzmaurice et al. (2012)
- Fitzmaurice et al. (2009)
- Gałecki and Burzykowski (2013)
- Congdon (2020)
- Molenberghs and Verbeke (2005)
- Verbeke and Molenberghs (2000)
- Jewell and Hubbard (2016)
  - by UC Berkeley professors

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[18] https://www.taylorfrancis.com/chapters/mono/10.1201/9781315182780-11/clustered-longitudinal-data-annette-dobson-adrian-barnett?context=ubx&refId=95f6c50e-093a-4488-a042-92a9f151a4b5

[19] https://link.springer.com/chapter/10.1007/978-1-4614-1353-0_7

[20] https://www.stat.ucdavis.edu/~jiang/

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