Dennis Leung

CONTACT INFORMATION

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HOMEPAGE

https://dmhleung.github.io

ACADEMIC POSITIONS

University of Melbourne, Lecturer
Sep 2019 - present

University of Southern California, Postdoctoral Fellow
Aug 2017 - April 2019 (Supervisor: Prof. Wenguang Sun)

Chinese University of Hong Kong, Postdoctoral Fellow
Aug 2016 - July 2017 (Supervisor: Prof. Qi-Man Shao)

EDUCATION

University of Washington
Ph.D., Statistics, 2016 (Advisor: Prof. Mathias Drton)

University of California, San Diego
M.S., Statistics, 2011

University of Hong Kong
Bachelor of Economics and Finance, 2008

PUBLICATIONS & PREPRINTS

ZAP: Z-value Adaptive Procedures for False Discovery Rate Control with Side Information.
Dennis Leung and Wenguang Sun. Under Review for Journal of the Royal Statistical Society: Series B. arXiv:2108.12623.

False Discovery Control for Pairwise Comparisons-An Asymptotic Solution to Williams, Jones and Tukey's Conjecture.
Weidong Liu, Dennis Leung and Qi-Man Shao. arXiv:1712.03305.

Asymptotic Power of Rao's Score Test for Independence in High Dimensions, 2019.
Dennis Leung and Qi-Man Shao. Bernoulli 25.1 (2019): 241-263.

Algebraic Tests of General Gaussian Latent Tree Models, 2018.
Dennis Leung and Mathias Drton. Advances in Neural Information Processing Systems 31

Testing Independence in High Dimensions with Sums of Squares of Rank Correlations, 2018.
Dennis Leung and Mathias Drton. Annals of Statistics, 46(1):280-307.

Identifiability of Directed Gaussian Graphical Models with One Latent Source, 2016.
Dennis Leung, Mathias Drton, and Hisayuki Hara. Electronic Journal of Statistics 10:394-422.

Efficient Computation of the Bergsma-Dassios Sign Covariance, 2016.
Luca Weihs, Mathias Drton, and Dennis Leung. Computational Statistics (2016):1-14.

Order-Invariant Prior Specification in Bayesian Factor Analysis, 2016.
Dennis Leung and Mathias Drton. Statistics & Probability Letters, Volume 111, Pages 60-66.

Presentations

ZAP: Z-Value-Based Covariate-Adaptive Multiple Testing

- Statistics seminar, University of Melbourne, Oct 2021
- Joint Statistical Meetings, Virtual Conference, Aug 2021.

Algebraic Tests of General Gaussian Latent Tree Models

- Conference on Neural Information Processing Systems, Montreal, Canada, Dec 2018
  `https://dmhleung.github.io/posters/NIPS2018_poster.pdf`

Bayesian Factor Analysis with Order-Invariant Prior

- Joint Statistical Meetings, Seattle, WA, Aug 2015
- The 3rd UW-MSR Machine Learning workshop, Redmond, WA, Feb 2015
- Amazon Graduate Research Symposium, Seattle, WA, Nov 2014

Identifiability of Acyclic Directed Gaussian Graphical Models with One Latent Variable
Slides: `http://mypages.iit.edu/~as2014/talks/LeungAS2014talk.pdf`

- AMS Fall Western Sectional Meeting, San Francisco State University, CA , Oct 2014
- Algebraic Statistics 2014 at Illinois Institute of Technology, Chicago, IL, May 2014

Teaching

Lecturer, **University of Melbourne**

- MAST 90084: Statistical Modelling, Spring 2020, 2021
- MAST 90138: Multivariate Statistics for Data Science, Fall 2020, 2021

Co-Lecturer, **University of Southern California**

- BUAD 310: Applied Business Statistics, Spring 2018

Teaching Assistant, **University of Washington**

- Statistics 394/395: Probability, Winter 2016 - Spring 2016
- Statistics 311: Elements of Statistical Methods, Spring 2014
- Statistics 512-513: Statistical Inference, Sep 2012 - Mar 2013
- Statistics 390: Probability and Statistics in Engineering and Science, Sep 2011 - Jun 2012

Internships

Microsoft Research Intern, Bellevue, WA, Summer 2015

Description: Worked on an applied research project on predicting influenza activities using influenza-like illness related search queries and time series analysis techniques

Statistical Consulting

University of Washington, Summer 2013

Description: Offered statistical consulting services to the university community. A report was written on the study design and data analysis of a research project on intentional communication of diabled children, for submission of a grant proposal by a doctoral student in Speech and Hearing Sciences.

Computer Skills

Mathematics/Statistics: R, Matlab, Mathematica

Programming: C, C++

Cluster computing: MOSIX/Slurm

Awards

GSFEI (Graduate School Fund for Excellence and Innovation) Graduate Student Travel Award

Description: Travel award granted by the UW Graduate School to assist with travel fare to the AMS Fall Western Sectional Meeting at San Francisco State University in Oct 2014

HKU Worldwide Undergraduate Student Exchange Scholarships

Description: Scholarship awarded by the University of Hong Kong to support exchange study at University of California, San Diego from Sep 2006 to Jun 2007

Referee Services

Annals of Statistics, Journal of the Royal Statistical Society (Series B), Biometrika, Bernoulli, Statistica Sinica and others.