Luca Weihs

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Education

2013 - Current **University of Washington, Seattle**
PhD, Statistics, expected June 2018
Advisor: Mathias Drton

2009 - 2013 **University of California, Berkeley**
BA, Mathematics, Valedictorian
Minor in Computer Science

Employment

6/16 - Present, **9/15 - 3/16**, **9/14 - 6/15**, **6/13 - 9/13** **University of Washington, Seattle**
Teaching and Research Assistant

3/16 - 6/16, **6/15 - 8/15** **Allen Institute for Artificial Intelligence, Seattle**
Research Intern

6/14 - 8/14 **ClearSlide inc., San Francisco**
Data Science Intern

Publications

2017

Symmetric Rank Covariances: a Generalised Framework for Nonparametric Measures of Dependence
Weihs, Drton, and Meinshausen
arXiv preprint, 1708.05653

Determinantal Generalizations of Instrumental Variables
Weihs, Robinson, et. al
arXiv preprint, 1702.03884

Learning to predict citation-based impact measures
Weihs and Etzioni
2017 ACM/IEEE Joint Conference on Digital Libraries (JCDL), 1-10.

Marginal likelihood and model selection for Gaussian latent tree and forest models
Drton, Lin, Weihs, and Zwiernik
Bernoulli, 23(2):1202-1232, 05

2016

Large-Sample Theory for the Bergsma-Dassios Sign Covariance
Nandy, Weihs, and Drton
Electronic Journal of Statistics, 10(2):2287-2311

Generic Identifiability of Linear Structural Equation Models by Ancestor Decomposition

Drton and Weihs
Scandinavian Journal of Statistics, 43:1035-1045

Efficient Computation of the Bergsma-Dassios Sign Covariance
Weihs, Drton, and Leung
Computational Statistics, 31(1):315-328

Open Source Software

Language(s)	Software
R, C++	**SymRC: Estimating Symmetric Rank Covariances** On GitHub
R	**SEMID: Parameter Identifiability in Linear Structural Equation Models** On CRAN and GitHub
R, C++	**TauStar: Efficient Computation and Testing of the Bergsma-Dassios Sign Covariance** On CRAN and GitHub
R, C++	**SBIC: Computing the Singular BIC for Multiple Models** On CRAN and GitHub
R, C++	**RIM: Inference with Recursive Inversion Models** On GitHub
Python	**Impact-Prediction: Predicting Author H-index and Paper Citation Counts** On GitHub

Talks

2017

SEMID: An R Package for Parameter Identifiability in Linear Structural Equation Models
Minisymposium on Software and Computation in Algebraic Statistics
SIAM Conference on Applied Algebraic Geometry in Atlanta, GA, USA

Generic Parameter Identifiability in Linear Structural Equation Models With Latent Factors
Algebraic Statistics Workshop
Mathematisches Forschungsinstitut Oberwolfach in Oberwolfach, Germany

Learning to Predict Citation-Based Impact Measures
Full Paper Session on Citation Analysis
Joint Conference on Digital Libraries in Toronto, Canada

Combinatorial Conditions for Generic Identification in Structural Equation Models
AMS Special Session on Gaussian Graphical Models and Combinatorial Algebraic Geometry
Joint Mathematics Meetings in Atlanta, GA, USA

Awards

2013 **Departmental Citation (Valedictorian Award)**
University of California, Berkeley
Department of Mathematics

Percy Lionel Davis Award
University of California, Berkeley
Department of Mathematics