# Guang Zhu

Institute of Management and Organization Università della Svizzera italiana guang.zhu@usi.ch or +41 797826115

## Research Interests

Multivariate analysis, Robust statistics, Factor analysis, Time series analysis.

#### Education

#### Università della Svizzera italiana, Lugano, Switzerland

• Ph.D., Management, 2023.

Thesis title: Penalized M-estimation of covariance matrices: geodesic convexity and non-smooth penalties

Advisor: Filippo Carlo Wezel.

#### Bocconi University, Milan, Italy

• Visiting Student, 2020.

Rutgers, the State University of New Jersey, Piscataway, NJ

• M.S., Statistics, 2017.

#### University of International Business & Economics, Beijing, China

• B.Eon., Actuarial Science, 2015.

### **Papers**

Tyler, David E. and **Mengxi Yi**. "Lassoing Eigenvalues." *Accepted.* **Biometrika**. arXive preprint arXiv:1805.08300 (Forthcoming).

Tyler, David E. and **Mengxi Yi**. "Shrinking the sample covariance matrix using convex penalties on the matrix-log transformation." Accepted. **Journal of Computational and Graphical Statistics**. arXiv preprint arXiv:

1903.08281.(Forthcoming).

Tyler, David E. and **Mengxi Yi**. "New algorithms for regularized Mestimators of covariance matrices." *Manuscript preparation in process, expected completion in Nov 2019*.

Tyler, David E., and **Mengxi Yi**. "Robust properties of regularized M-estimators." *Manuscript preparation in process, expected completion in Jan 2020.* 

Muhlmann, Christoph, Klaus Nordhausen and **Mengxi Yi**. "Multivariate spatial prediction in a blind source separation framework." *Manuscript preparation in process, expected completion in Oct 2019.* 

 ${f Awards}$ 

Swiss National Science Foundation

Fellowships

Doc. Mobility Fellowship (USD 50,000), 2021

(Selected)

**Swiss National Science Foundation** 

SNSF-189098, CHF636,950

When two become one: The organizational antecedents and consequences

of inter-firm mobility Co-PI, 2020-2024

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Academic

STAT 211: Statistics I, Summer 2018

Experience s

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**Teaching** 

Instructor

Rutgers, the State University of New Jersey

STAT 211: Statistics I, Summer 2018

Research Assistant of Swiss National Science Foundation

Rutgers, the Office of Statistical Consulting, Fall 2016

Teaching Assistant

Università della Svizzera Italiana

Organizational Behavior

EMBA: Human Resource Management STAT 483/540: Statistical Quality Control

STAT 586: Interpretation of Data

STAT 588: Data Mining

**Talks** 

"Penalized M-estimation of covariance matrices", Committee members of School of Data Science, Fudan University, Feb 2019.

"General penalized M-estimation of scatter matrices", International Conference on Robust Statistics (ICORS), Leuven - Belgium, Jul 2018.

"Regularized M-estimation of scatter matrix", Student Seminar, Rutgers, the State University of New Jersey, Oct 2016.

"Stein estimation: intuition why it makes sense", Student Seminar, Rutgers, the State University of New Jersey, Nov 2015.

Tech Skills

R, SAS, Python, Matlab & LATEX

Language English (fluent), Chinese (native), Italian (elementary level)

## References

# 1. Filippo Carlo Wezel

Professor

Email: filippo.carlo.wezel@usi.ch

Phone: (848) 445-7646

Institute of Management and Organization

Università della Svizzera italiana

Via Buffi 13, 6900 Lugano, Swizterland