

Trainer



Jia Hou

Goethe University, Frankfurt

- Research Assistant at Sustainable Architecture for Finance in Europe (SAFE)
- Research Interests:
 - Applied Econometrics
 - International Economics and Financial Frictions
 - Trade policy
 - Stata and Python

Linear Algebra with an Introduction to MATLAB

In Cooperation with the GRADE Center GSEFM

Objective

The GRADE Center GSEFM opens its “Pre-semester Courses”, held by advanced PhD candidates, to all PhD candidates, registered at GRADE. These courses cover different topics.

Description

1. Introduction to MATLAB
2. Matrix Algebra
 - Elementary operations, rank, determinant and inverse
 - Eigenvalues and eigenvectors, similarity transformations
3. Systems of linear equations
4. Vector and matrix differentiation

Conditions

Students are expected to have a basic undergraduate background in mathematics and/or statistics. Students lacking this background are recommended one of the following references:

1. *Simon, C. P. and L. Blume (1994): Mathematics for Economists, Norton & Company.*
2. *Chiang, A.C. and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, Mc Graw-Hill Irwin.*

Further Literature

Mathematics, Statistics and Econometrics

- *Adkins, L.C. and R. C. Hill (2012): Using STATA for Principles of Econometrics, Fourth Edition, John Wiley & Sons.*
- *De La Fuente, A. (2000): Mathematical Methods and Models for Economists, Cambridge University Press.*
- *DeGroot, M. H. and M. J. Schervish (2010): Probability and Statistics, Fourth Edition, Addison Wesley.*
- *Ford, W. (2014): Linear Algebra with Applications: Using MATLAB, Academic Press.*
- *Simon, C.P. (2012): Mathematics for Economists, Viva Books.*
- *Stock, J. J. and M. W. Watson (2010): Introduction to Econometrics, Third Edition.*
- *Wooldridge, J.M. (2015): Introductory Econometrics: A Modern Approach, Sixth Edition, Cengage Learning.*

Background: Macroeconomics, Microeconomics and Finance

- *Danthine, J.-P. and J. B. Donaldson (2014): Intermediate Financial Theory, 3rd Edition, Academic Press.*
- *Krugman, P., R. Wells and K. Graddy (2013): Essentials of Economics, Third Edition, Worth Publishers.*
- *Varian, H. R. (2010): Intermediate Microeconomics: A Modern Approach, Eighth Edition, W. W. Norton.*
- *Williamson, S. D. (2014): Macroeconomics, Fifth Edition, Pearson.*

Organizational Information

Language	English
Target group	Doctoral candidates at all stages from all faculties
Date	Wednesday- Friday & Monday, 19-21 & 24 September 2018, 9:00 – 15:00
Registration	For registration click here