

# 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. Please check pp 54-58.

## Description

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

## Conditions

Participants are expected to have a basic undergraduate background in mathematics and/or statistics. Participants 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

Please check the workshop description for “Real Analysis” for more information.

The workshop will take place on Campus Westend.

## Trainer



**Andrian Yambolov**  
GSEFM, Goethe University

Andrian Yambolov is a doctoral candidate in Economics at the Graduate School of Economics, Finance, and Management (GSEFM), and a research assistant at the Chair for International Macroeconomics and Macroeconometrics. He holds a Bachelor's degree in Economics from the University of Bonn, and a Master's degree in Mathematics and Economics from the University of London.

## Organizational Information

Language	English
Target group	Doctoral candidates at all stages from all faculties
Date	Tuesday-Friday & Monday, 17-20 September 2019, 9:00 – 15:00
Registration	<a href="#">For registration click here</a>