Linear Algebra, Linear Difference Equation Systems and 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 (Theory and Numerical Illustration in MATLAB)
   - Rank, Determinant and Inverse
   - Eigenvalues and Eigenvectors
   - Similarity Transformations
3. Systems of Static Linear Equations (Theory and Numerical Illustration in MATLAB)
4. Systems of Linear Difference Equations (Theory and Numerical Illustration in MATLAB)
   - Autonomous Systems: Diagonalization, Jordan Normal Form and Real-Valued Representations
   - Backward and Forward Solutions
5. Vector and Matrix Differentiation (Theory and Numerical Illustration in MATLAB)

ℹ️ Conditions

Participants are expected to have a solid undergraduate background in mathematics. Those missing some of this background are expected to have worked through the following reference prior to the beginning of the course:

Chiang, A.C. and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, Mc Graw-Hill Irwin.

Trainer

N.N.

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ℹ️ Organizational Information

Language	English
Target group	Doctoral Candidates at all stages from all faculties
Date	Tuesday-Friday, 21-24 September 2021, 10:00 – 12:00 & 13:00 – 15:00
Registration	**For registration click here**