

# Static Optimization with MATLAB

## Description

1. Canonical Programming Problem
2. Unconstrained Maximization
  - Necessary and Sufficient Conditions
  - Concave and Generalized Concave Problems
3. Maximization with Equality Constraints
  - Necessary and Sufficient Conditions
  - Concave and Generalized Concave Problems
4. Maximization with Equality and Inequality Constraints
  - Necessary and Sufficient Conditions
  - Concave and Generalized Concave Problems
5. Comparative Statics and Value Functions
6. Numerical Illustration in MATLAB: Newton's Method and Quasi-Newton Methods

## Trainer



**Philip Schwedler**  
Goethe University Frankfurt

## Conditions

Participants are expected to have a solid undergraduate background in mathematics as is relevant for studies in economics, finance, accounting and marketing. 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.*



## Organizational Information

Language / Format	English / On campus
Target group	Doctoral Candidates at all stages from all faculties
Date	Monday-Thursday, 25-28 September 2023, 9:00 – 13:30
Registration	<a href="#">For registration click here</a>