

# Real Analysis

In Cooperation with the GRADE Center GSEFM

## Trainer



**Errikos Melissinos**

GSEFM, Goethe University

Errikos Melissinos is a doctoral candidate in Economics at the Graduate School of Economics, Finance, and Management (GSEFM) and a research assistant at the SAFE Data Center. He holds a degree in Law from the University of Athens, and a Master's degree in Economics from the Pompeu Fabra University of Barcelona.

## 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. Logic and set theory
2. Real numbers, metric spaces, sequences, series and limits
3. Mappings, functions and correspondences
4. Some useful theorems and proofs

## 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

### 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, 11-13 & 16 September 2019, 9:00 – 15:00
Registration	<b>For registration click here</b>