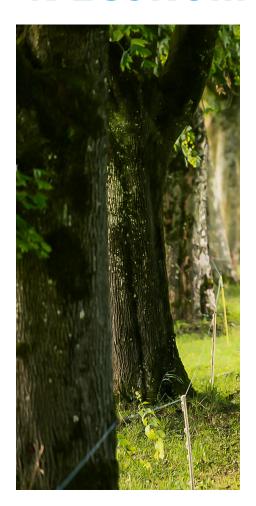


# SWISS PROGRAM FOR BEGINNING DOCTORAL STUDENTS IN ECONOMICS 2023







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### INTRODUCTION

The Study Center Gerzensee, Foundation of the Swiss National Bank, opened its doors in 1986 to serve as an international training and conference center for economists and central bank staff.

The Study Center currently offers course programs in Graduate Training and Central Banker Training. It also hosts a range of conferences and workshops, which are regularly attended by leading scholars and policy makers.

Our Program for Beginning Doctoral in Economics targets excellent and motivated doctoral students in their first year of doctoral training, who seek a broad and thorough education in economics to understand and conduct first-rate academic research.

The courses cover the material of a US-style first year PhD program in microeconomics, macroeconomics, and econometrics. The faculty is composed of leading scholars in their fields teaching at top universities.

This brochure lays out the program, introducing the course contents and lecturers. It also provides information on funding, organization, and admission.

We look forward to welcoming curious and ambitious course participants to Gerzensee.

Martin Brown Director

Cyril Monnet Program Manager Doctoral Courses

## **PROGRAM**

Introduction Day, August 14, 2023

Mathematics course, Andreas Bachmann, Swiss National Bank and Cyril Monnet, Study Center Gerzensee, August 14–17, 2023

Econometrics week 1, Anna Mikusheva, Massachusetts Institute of Technology, August 21–25, 2023

Microeconomics week 1, Klaus Schmidt, University of Munich, September 18–22, 2023

Econometrics week 2, Bo E. Honoré, Princeton University, October 16–20, 2023

Microeconomics week 2, Piero Gottardi, University of Essex, November 13–17, 2023

Macroeconomics week 1, Ricardo Reis, London School of Economics, December 11–15, 2023

Macroeconomics week 2, Fernando Álvarez, University of Chicago, January 15-19, 2024

Exam session I, February 26-28, 2024

Macroeconomics week 3, Jordi Galí, Universitat Pompeu Fabra and CREI, March 4-8, 2024 Econometrics week 3, Anna Mikusheva, Massachusetts Institute of Technology, April 8-12, 2024

Macroeconomics week 4, Stephanie Schmitt-Grohé, Columbia University, April 29-May 3, 2024



Microeconomics week 3, Johannes Hörner, Yale University, May 13-17, 2024

Econometrics week 4, Bo E. Honoré, Princeton University, May 27-31, 2024

Microeconomics week 4, John H. Moore, University of Edinburg and London School of Economics, June 24-28, 2024

Exam session II, September 2-4, 2024 The program consists of an optional mathematics review as well as sequences in microeconomics, macroeconomics, and econometrics. In each sequence, leading international academics teach four courses each lasting one week.

A typical course day includes classroom lectures of three hours as well as exercise review sessions. Course weeks start on Monday at 10:30 a.m. and end on Friday at noon.

In the periods between the course weeks, participants review and prepare the material covered in class, solve mandatory take-home problem sets, and study for the exams. In total, students are expected to allocate 150 hours of studying to each of the 12 courses in the program. The workload for the program thus compares to a 60-ECTS full-time program for one academic year.

On successful completion of the program, participants are awarded a certificate. It is the responsibility of participants to obtain credit with their universities.

# **SEQUENCES**

### Microeconomics

The Microeconomics sequence covers: Preference and choice, consumer choice, classical demand theory, aggregate demand, production, choice under uncertainty; markets and competitive equilibria, welfare properties and other properties of competitive equilibria, uncertainty and asset pricing; non-cooperative games, simultaneous move and dynamic games, complete and incomplete information games with applications; externalities, public goods, adverse selection, signalling, screening, principal-agent theory, limits to redistribution, general equilibrium under uncertainty, social choice, incentives and mechanism design.

Textbooks used in the sequence include Gibbons (1992), *A Primer in Game Theory*, Harvester Wheatsheaf; Mas-Colell, Whinston and Green (1995), *Microeconomic Theory*, Oxford University Press.

Other references are Jehle and Reny (2011), *Advanced Microeconomic Theory*, Prentice Hall, and Varian (1992), *Microeconomic Analysis*, Norton

#### Macroeconomics

The Macroeconomics sequence covers: Development accounting and misallocation, capital accumulation, optimal consumption and saving, complete and incomplete markets, aggregation, risk sharing, asset pricing, durable goods and the demand for housing; the neoclassical growth model, Ramsey policies with complete and incomplete markets, the McCall and Stigler search model, search and matching, Diamond-Mortensen-Pissarides; the classical monetary model and the basic New Keynesian model, inflation dynamics, optimal monetary policy design and open economies.

The main textbook for the third week is Galí (2015), Monetary Policy, Inflation and the Business Cycle. An Introduction to the New

Keynesian Framework, Princeton University Press. The main textbook for the fourth week is Open Economy Macroeconomics, Princeton University Press; Uribe and Schmitt-Grohé (2017). Other textbooks include Acemoglu (2009), Introduction to Modern Economic Growth, Princeton University Press; Barro and Sala-i-Martin (2003), Economic Growth, MIT Press; Ljungqvist and Sargent (2018), Recursive Macroeconomic Theory, MIT Press; Niepelt (2019), Macroeconomic Analysis, MIT Press; Romer (2019), Advanced Macroeconomics, McGraw-Hill; Walsh (2017), Monetary Theory and Policy, MIT Press, and Woodford (2003), Interest and Prices: Foundations of a Theory of Monetary Policy, Princeton University Press.

### **Econometrics**

The Econometrics sequence covers: Basic probability theory, large sample theory, estimators and their properties, hypothesis testing, Bayes methods; inference in the classical regression model, generalizations of the linear model, instrumental variables; linear difference equations, stochastic processes, Wold theorem, spectral analysis, estimation and inference methods for stationary linear models, vector autoregressions, functional central limit theorem, Kalman filtering, models of time-varying

volatility, forecasting; nonlinear regression and GMM estimation, quantile regression, discrete choice models, program evaluation and sample selection, non-parametric estimation techniques, and panel data models.

Textbooks used in the sequence include Hamilton (1994), *Time Series Analysis*, Princeton University Press; Hayashi (2000), *Econometrics*, Princeton University Press, and Hogg and Craig (1995), *Introduction to Mathematical Statistics*, Prentice Hall.

### MICROECONOMICS LECTURERS

### Piero Gottardi University of Essex

Piero Gottardi is professor of economics at the University of Essex. He received his PhD from the University of Cambridge and was previously professor of economics at the University of Venice and the European University Institute, and a visiting professor at Harvard, Yale, Brown and UPF. He is associate editor of the Journal of Economic Theory and the Journal of Public Economic Theory. His research interests are in general equilibrium theory, financial economics and macroeconomic theory.

### Johannes Hörner Yale University

Johannes Hörner is the Alfred Cowles Professor of Economics at Yale University. He has received his PhD in economics from the University of Pennsylvania in 2000, and has held previous positions at the Kellogg School of Management, Northwestern Uni-

versity (2000–2008). His academic interests range from game theory to the theory of industrial organization. His research has focused on repeated games, dynamic games, and auctions.

### John H. Moore University of Edinburgh and London School of Economics

John H. Moore is professor of economic theory at the University of Edinburgh and at the London School of Economics (LSE). He studied for a BA in mathematics from the University of Cambridge and holds a PhD in economics from the LSE. Professor Moore's research is in microeconomic theory, labor contracts, mechanism design, the theory of the firm, and financial contracting. More re-

cently, he has worked on the micro foundations of macroeconomics, in particular the role of money and credit in the propagation of business cycles. He was editor of the Review of Economic Studies, elected fellow of the Econometric Society and, with his co-author Nobuhiro Kiyotaki, was awarded the Yrjö Jahnsson Medal.

### Klaus Schmidt University of Munich

Klaus Schmidt is professor of economics at the University of Munich. He received his PhD from the University of Bonn and was a visiting professor at MIT, Stanford and Yale. He is associate editor of the Journal of Economics and served as a co-editor of the European Economic Review and associate editor of the Review of Economic Studies. His research interests focus on contract theory and game theory, in particular the theory and applications of incomplete and implicit contracts, on behavioral and experimental economics, and on political economy.

# MACROECONOMICS LECTURERS

### Fernando Álvarez University of Chicago

Fernando Álvarez is the Inaugural Saieh Family professor in economics and the College at the University of Chicago. He holds a PhD from the University of Minnesota. He is a member of the American Academy of Arts and Sciences, a research associate at the National Bureau Bureau of Economic Research (NBER) and a fellow of the Econometric Society. Professor Álvarez has received fel-

lowships from the European Central Bank (ECB), the Alfred P. Sloan Foundation and the Organization of American States. His research interests include monetary and employment policy, comprising discussions of interest and exchange rates, unemployment and insurance claims, equilibrium economics, dynamic programming, and segmented markets.

### Ricardo Reis London School of Economics

Ricardo Reis is the A.W. Phillips Professor of Economics at the LSE. He has published widely on macroeconomics. His main areas of research are inflation expectations, unconventional monetary policies and the central bank's balance sheet, disagreement and inattention, business cycle models with inequal-

ity, automatic stabilizers, sovereign-bond backed securities, and the role of capital misallocation in the European slump and crisis. Professor Reis received his PhD from Harvard University, and he was previously on the faculty at Columbia University and Princeton University.

### Jordi Galí Universitat Pompeu Fabra and CREI

Jordi Galí is professor at Universitat Pompeu Fabra (UPF) and senior researcher at the Center for Research in International Economics (CREI) and research professor at the Barcelona GSE. He earned his PhD in economics at the Massachusetts Institute of Technology (MIT). He was the director of CREI between 2001 and 2017. He has held academic positions at New York University and Columbia University. He has been a visiting professor at MIT. He is a research fellow at the Center for Economic Policy Research (CEPR), a research associate at the NBER, and a fellow of the Econometric Society. He has served as a co-editor of the

Journal of the European Economic Association and co-director of the CEPR International Macroeconomics Programme. In 2012 he served as president of the European Economic Association. Among other awards, Galí has received the National Research Prize from the Government of Catalonia and was co-recipient of the Yrjö Jahnsson Award. He has been a consultant to the ECB, Federal Reserve, Sveriges Riksbank, Norges Bank, Banque de France, and other central banks. His research interests include macroeconomics and monetary theory, and he has published articles on these topics in numerous scientific journals.

# Stephanie Schmitt-Grohé Columbia University

Stephanie Schmitt-Grohé is a professor of economics at Columbia University, a Research Associate of the NBER and a Research Affiliate at the CEPR. Prior to joining Columbia, Schmitt-Grohé held positions at Duke, Rutgers, and the Federal Reserve Board. Her research focuses on the design of monetary and fiscal policies and on understanding the sources and propagation of macroeconomic shocks within and across countries. Her

work has received financial support from the National Science Foundation and has been awarded the Bernácer Prize. She is a co-author of the 2017 graduate level Princeton University Press text «Open Economy Macroeconomics» (joint with Martín Uribe) and of the 2022 undergraduate level Princeton University Press text «International Macroeconomics: A Modern Approach» (joint with Martín Uribe and Michael Woodford).

# **ECONOMETRICS LECTURERS**

### Bo E. Honoré Princeton University

Bo Honoré is Class of 1913 Professor of Political Economy; professor of economics at Princeton University. He conducts research in econometrics. Professor Honoré earned his PhD at the University of Chicago. He has taught at Northwestern University and has held visiting positions at the University of Chicago and the University of Copenhagen. Professor Honoré has served as director of graduate studies, director of graduate admissions, director of the Gregory C.

Chow Econometric Research Program, associate chair and chair of the department of economics at Princeton. Bo Honoré is a fellow of the Econometric Society. He was awarded The Richard E. Quandt Teaching Prize in 2012 and 2018, and The Rigmor and Carl Holst-Knudsen Award for Scientific Research from Aarhus University in 2017. He is a past member of the Board of Trustees of the Danish National Research Foundation.

# Anna Mikusheva Massachusetts Institute of Technology

Anna Mikusheva is professor of economics at the Massachusetts Institute of Technology (MIT). Professor Mikusheva's research aims to create new econometric procedures that work in a robust way when standard asymptotic approaches fail. She is interested in settings and applications when weak identification is present. She also wrote extensively about inference for persistent (unit root) data. Professor Mikusheva holds a PhD in Economics from Harvard University and a PhD in Mathematics from Moscow State University.

Professor Mikusheva was the recipient of the 2012 Elaine Bennett Research Prize, awarded by the American Economic Association. She is a Fellow of Econometric Society, and a Sloan Research Fellow (2013-2015). Professor Mikusheva has multiple teaching and mentoring awards, the most recent of which are the 2021 Best Teacher and Best Adviser awards by the MIT Graduate Economics Association. Professor Mikusheva is currently a co-editor of Econometric Theory, associate editor of Econometrica and Quantitative Economics, and foreign editor of the Review of Economic Studies.

### PROGRAM RULES

### **PARTICIPATION**

Participants are expected to prioritize the program and behave responsibly. In particular, they must attend all lectures and sessions, submit solutions to problem sets in time, and participate in the exams. The Study Center reserves the right to request a medical certificate in case of non-participation due to medical reasons.

No accompanying persons nor pets are allowed to stay at the Center during the program.

### **TAKE-HOME PROBLEM SETS**

Participants must submit solutions to the take-home problem sets latest by the set deadline. In some cases, participants can form groups to jointly submit a solution. The professors determine the maximum group size. Copy-pasted solutions are not accepted. Solutions are graded on a scale from 0 to 100 points and transformed into a grade on a scale from 1 to 6, with 6 being the best grade. Grades may be contested within a month after they have been communicated.

The appeal has to be well motivated and addressed to the Study Center. A problem set may not be retaken. The total grade for the problem set solutions in each sequence is computed by averaging all grades of the participant's solutions. In case of compelling reasons, grades of not submitted solutions do not count for the average.

**Submission:** Solutions to take-home problem sets must be concise and precise, include a cover sheet with the name and

ID number of the participant (or the names of the participants in the group) and the title of the homework. Solutions must be typewritten and e-mailed in PDF format latest by the dates announced at the Introduction Day.

Participants who do not get an acknowledgement of receipt by e-mail latest a working day after the deadline must immediately contact Ms. Teodora Ruiz, or they risk missing the deadline.

### **EXAMS**

There are two exams for each sequence. The first exam covers the material of weeks 1 and 2. The second exam covers the material of weeks 3 and 4. Exams may be «open book» or «closed book» as determined by the professors. Personal computers may not be used during the exams. Each exam lasts

two hours. Exams are graded on a scale from 1 to 6. The passing grade for an exam is 3.5. Grades may be contested within a month after they have been communicated. The appeal has to be well motivated and addressed to the Study Center. An exam may be retaken once, in the following year

(unless important reasons render a delay unavoidable). Exams are held at the Study Center on the following dates:

Exam session I (week 1 & week 2): February 26-28, 2024 Exam session II (week 3 & week 4): September 2-4, 2024

### **GRADES AND CERTIFICATE**

For each sequence, the overall grade is computed as a weighted average of the grades for the problem set solutions (10%) and the first and second exam (45% each). To pass a sequence, the participant must pass both exams of that sequence and achieve an

overall grade of at least 4. The Study Center reports the grades for each sequence to the representative of the participant's institution, which in turn decides about the recognition of those grades.

The Study Center awards a certificate to participants who pass all three sequences of the program within one year.

# FUNDING AND ORGANIZATION

The program is heavily subsidized. The fee for one sequence amounts to CHF 500, the fee for two sequences to CHF 1,000, and the fee for the full program to CHF

2,000 of which CHF 1,000 is refunded if and only if the full program is successfully completed within one year. The fee covers tuition as well as the cost of a single or shared double room with full board. For information about the hotel services, see the website of the Study Center's hotel.

### **ADMISSION**

The Study Center invites Swiss universities to nominate candidates. As space is limited, the Center cannot admit all qualified nominees. Repeat nominations are possible.

Candidates affiliated with a Swiss university should indicate their interest by sending an e-mail to the representative at their home institution listed below. The representative will then initiate a web-based application process, allowing candidates to submit their application online. There is no application form to download from the Study Center's website.

Candidates must hold an undergraduate degree and be enrolled (or about to enroll) in the doctoral program at a Swiss university. Preference is given to applications for the full program.

A complete application includes (a) completed online application form; (b) recent GRE general test scores (not older than two years) with a quantitative analysis score of at least 160; (c) statement of purpose as submitted to the doctoral program of the candidate's university (in English). Unless otherwise specified by the candidate's University representative the following documents should also be submitted: (d) most recent grade

transcripts; (e) completed online recommendation forms by 1-3 professors including the advisor.

For information about the GRE including how and where to take the test, see the website of Educational Testing Service; of most relevance are the scores for the quantitative and verbal reasoning parts. Applicants should have (b) Educational Testing Service send their GRE results to the Study Center directly. The Study Center's GRE Graduate Code is 7381 (Study Center Gerzensee Swiss Program for Beginning Doctoral Students in Economics).

#### Representatives:

EPFL, G. de Rassenfosse
ETH Zurich, P. Egger
The Graduate Institute, C. Tille
University of Basel, Y. Lengwiler
University of Bern, H. Dellas
University of Fribourg, H. Herz
University of Geneva, A. Tetenov
University of Lausanne, B. Klaus
University of Lucerne, S. Luechinger
University of Neuchâtel, D. Kaufmann
University of St. Gallen, R. Föllmi
Università della Svizzera italiana, L. Kueng
University of Zurich, R. Weber

### **Deadlines:**

Study Center receives GRE scores: **April 15, 2023** 

Applicants submits information online: **April 15, 2023** 

Representatives review applications: **April 22, 2023** 

Study Center communicates admission decision: May, 2023

Participant pays fee: June 30, 2023

# CONTACT

All mail as well as inquiries should be addressed to:

Study Center Gerzensee

Swiss Program for Beginning Doctoral Students in Economics, Ms. Teodora Ruiz, Dorfstrasse 2, CH-3115 Gerzensee, Switzerland Tel: +41 31 780 31 03, e-mail: teodora.ruiz@szgerzensee.ch

### LOCATION

https://szgerzensee.ch/contact