

School of Economics, University of Surrey

December 11th - December 12th, 2023

Online Winter School on the Macroeconomics of
Public Finance

Two-Day Course in Inequality, Heterogeneous
Agents Models and Optimal Taxation



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1 Introduction

The Centre for International Macroeconomic Studies (CIMS) at the School of Economics, University of Surrey, will deliver a winter course on macroeconomics of public finance, with a focus on inequality, heterogeneous agents model, and optimal taxation. The course will last for two days, and will be held online, during December 11th - 12th 2023.

The first day of winter school will be centred on introducing the theoretical background of the inequality and Ramsey tax policies and its main applications under heterogeneous agents model. On its second day, the course will move on to address the actual challenges in terms of computation and advanced non-linear Mirrlees taxation.

Our winter school is suitable to PhD students, advanced masters students, and junior faculties with a focus on public finance and macroeconomics. It is also suitable to practitioners and policymakers working on public finance and macroeconomics.

2 Instructors

Kjetil Storesletten is a Richard and Beverly Fink Professor of Economics at University of Minnesota, Vice-Chancellor's Fellow at University of Surrey, and a Fellow of Econometric Society. He has previously held positions at University of Oslo, Federal Reserve Bank of Minneapolis, and the Institute for International Economic Studies. He has served as both Managing Editor and Chairman of the Review of Economic Studies. He has also been a member of the Executive Monetary Policy Committee of Norway (2014-2019) and President of the European Economic Association. He is a macro economist and his work has appeared in all top journals in economics, including QJE, AER, JPE, and Econometrica. He has received an Advanced Grant from the European Research Council and the Sun Yefang Award from the Chinese Academy of Social Sciences.

Hitoshi Tsujiyama is a Senior Lecturer at the University of Surrey. Prior to joining Surrey in 2022, he was an Assistant Professor at Goethe University Frankfurt in Germany. He received his PhD in Economics from the University of Minnesota, USA in 2013, and his BA and MA from the University of Tokyo, Japan. He has also worked as a research analyst at the Federal Reserve Bank of Minneapolis, USA. His research interests include macroeconomics and public

finance. He has published in journals such as the Journal of Political Economy and the Journal of Monetary Economics. Website: <https://sites.google.com/site/hitoshitsujiyama/>

3 Course Timetable (GMT)

Day 1 Schedule – Inequality, Heterogeneous-Agents Models, and Ramsey Taxation

09.30 am - 11.00 am: Session 1

11.00 am - 11.30 am: Break

11.30 am - 01.00 pm: Session 2

01.00 pm - 02.15 pm: Lunch

02.15 pm - 03.45 pm: Session 3

03.45 pm - 04.15 pm: Break

04.15 pm - 05.45pm : Session 4

Day 2 Schedule – Optimal Non-linear Mirrlees Taxation

09.30 am - 11.00 am: Session 1

11.00 am - 11.30 am: Break

11.30 am - 01.00 pm: Session 2

01.00 pm - 02.15 pm: Lunch

02.15 pm - 03.45 pm: Session 3

03.45 pm - 04.15 pm: Break

04.15 pm - 05.45pm : Session 4

4 Macroeconomics of Public Finance

The aim of this lecture is to discuss the background of rising income inequality and how the government can tackle this problem through tax and transfer systems. This course will be useful for anyone interested in gaining practical knowledge of heterogeneous agent macroeconomic models with public policies and their solutions. We aim to disseminate numerical tools for solving these models. The contents of the course to be given by Storesletten and Tsujiyama are as follows:

- **Day 1 (11th December): Inequality, Heterogeneous-Agents Models, and Ramsey Taxation**

Instructor: Kjetil Storesletten

- Facts on Inequality
- Introduction to Models with Heterogeneous Agents
- An analytical Aiyagari model with labor supply
- Welfare cost of inequality
- Optimal Ramsey Tax Policies: How Should Taxes Respond to Inequality?

- **Day 2 (12th December): Optimal Non-linear Mirrlees Taxation**

Instructor: Hitoshi Tsujiyama

- Introduction to Mirrlees Taxation
- Solution of the fully non-linear tax systems
- Comparison of Ramsey and Mirrlees Policies