

# LYON SUMMER SCHOOL IN EMPIRICAL RESEARCH METHODS

ÉCOLE NORMALE SUPÉRIEURE DE LYON

# JULY 2025

## PROGRAM

JULY 1 - JULY 3, 2025 - LYON



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organizers: Cédric CHAMBRU & Elisa MOUGIN



# DAY 1 - TUESDAY 1 JULY 2025

**8H45-9H**  
ROOM D8-001

**Welcome by Sylvie Démurger**

**9H-10H30**  
ROOM D8-001

**Keynote lecture by Pierre-Philippe Combes:** *"Measuring land use changes by (machine) learning from historical maps - Urbanisation and Urban Divergence: France 1760 – 2020"*

We use machine learning to extract land use data from historical maps of France and delineate cities consistently over 260 years. The urbanization rate increased but the number of cities declined and the size distribution of cities became increasingly skewed. Within cities, population density rose and its gradient attenuated. A model of urban divergence rationalizes these findings.

**10H30-10H45**  
ROOM D8-004

**BREAK**

**10H45-12H45**  
ROOM D8-006

**Course 1 by Jonathan Goupille Lebre:** *"Writing an Introduction"*

This module teaches how to write and present a clear and compelling introduction for a research paper in economics. You will learn to motivate your topic, frame your research question, highlight your contribution, position your work within the literature, and use the optimal structure for both slides and paragraphs. Emphasis will be placed on writing that is clear, precise, and concise. By the end of the course, you will be able to write and present introductions that effectively engage readers and set the stage for your research.

**12H45-14H**  
ROOM D8-004

**LUNCH BREAK**

**14H-16H**  
ROOM D8-006

**Course 2 by Vincent Bagilet:** *"Data Visualization for Economics Research"*

A significant portion of communicating economic research results—whether in presentations or written papers—relies on graphs and visuals. This session aims to help you develop essential skills for effective data visualization. We will cover fundamental visualization principles and general best practices before examining the specific challenges of data visualization for causal inference. While it can be a powerful rhetorical tool for causal inference, data visualizations can also be misleading if not handled carefully.

**16H-16H15**  
ROOM D8-004

**BREAK**

**16H15-18H15**  
ROOM D8-006

**Course 3 (optional) by Alexandre Verlet:** *"Automated Data Collection"*

This module focuses on automated data collection processes, particularly in the use of historical archives. It aims to give participants a sense of the best methods currently available and what they can achieve. We will also navigate the trade-offs incurred by the costs (time, money, skills) and potential entry barriers (skills, legality) of data collection— the benefit being, of course, working with data that has never been used before! We will cover the following methods: Web Scraping, OCR and Layout Detection Software, AI for Text, Tables, and Images, AI for Maps.

**18H30-20H30**

**Welcome drinks in the garden**

# DAY 2 - WEDNESDAY 2 JULY 2025

**9H-10H30**  
ROOM D8-001

**Workshop session 1** - Chair: *Sophie Hatte*

3 presentations of 30 minutes

**10H30-10H45**  
ROOM D8-004

**BREAK**

**10H45-12H15**  
ROOM D8-001

**Keynote by Davide Cantoni:** *"Historical Contingencies, Econometric Problems: The Analysis of Natural Experiments in Economic History"*

The analysis of (historical) natural experiments has allowed economists across fields to make great strides. We argue that historical natural experiments involve challenges to interpretation that go beyond those affecting contemporary field experiments. Historical natural experiments are best understood through a lens that combines economic theory with an appreciation of historical contingency: good history, like good theory, produces better applied economics.

**12H15-12H45**  
ROOM D8-001

**Discussion with Davide Cantoni**

**12H45-14H**  
ROOM D8-004

**LUNCH BREAK**

**14H-16H**  
ROOM D8-006

**Course 4 by Quentin Daviot:** *"Empirical Research Methods"*

This module focuses on helping you to translate your research question into an empirical setting with a solid research design. Whether it involves designing a survey or collecting human-subject data, using secondary data with new material, or other approaches, you will learn how to turn your idea into a concrete plan. The module also covers good practices in survey design, including topics such as GDPR compliance and pre-analysis plans.

**16H-16H15**  
ROOM D8-004

**BREAK**

**16H15-18H15**  
ROOM D8-006

**Course 5 (optional) by Mathieu Couttenier:** *"Satellite Data Collection"*

This module examines how high-resolution satellite imagery, combined with microeconomic data, deepens our understanding of human living conditions and informs policy in data-scarce contexts. The course covers four key areas: environmental degradation and deforestation, with a focus on land-use change and its socioeconomic impacts; agriculture and food security, through crop monitoring and yield estimation; natural resources (minerals and water), by tracking exploitation and availability; and urbanization and population movements, via urban growth mapping and displacement monitoring.

**19H30**

**Dinner at Roliko** - 83 rue de Gerland, 69007 Lyon

# DAY 3 - THURSDAY 3 JULY 2025

**8H30-10H30**  
ROOM D8-006

## **Course 6 by Cédric Chambru:** *"Replication and Data Management"*

This module introduces the key concepts of reproducibility and replicability in empirical research. It emphasizes their role in promoting transparency and credibility in Economics by addressing issues such as publication bias and p-hacking. We will also discuss why replication matters and how replication studies are conducted. We will also review guidelines for setting up reproducible workflows, data management and version control, and for creating replication packages from day one.

**10H30-10H45**  
ROOM D8-004

## **BREAK**

**10H45-12H45**  
ROOM D8-001

## **Workshop session 2** - *Chair: Jade Ponsard*

4 presentations of 30 minutes

**12H45-14H**  
ROOM D8-004

## **LUNCH BREAK**

**14H-16H**  
ROOM D8-001

## **Workshop session 3** - *Chair: Elisa Mougin*

4 presentations of 30 minutes