

Complexity Economics

Theory and Computational Methods

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Summer Academy for Pluralism in Economics

Exploring Economics
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Plan for first lecture

- Getting to know ourselves
- Clarify organizational issues and resolve open issues
- Introduce and explain background of course outline
- Start with meta-theoretical framework

Intro

Claudius

- Studied „Staatswissenschaften“, i.e. economics, law, and social sciences in Erfurt
- PhD in economics in Bremen, Germany
 - Several stays in Santa Fe, USA
- Now: Post Doc at the Johannes Kepler University in Linz, Austria & University of Duisburg-Essen, Germany
- Main interests:
 - Economic development, technological change and globalisation
 - Agent-based computational economics
 - Philosophy of economics, i.p. methodology & pluralism
 - Network theory and game theory

Torsten

- Studied economics in Dresden and Madrid
- PhD and *Habilitation* in economics in Bremen, Germany
- Now: Post Doc at Oxford University
 - Institute for New Economic Thinking (INET), Oxford Martin School (OMS) & Wolfson College
- Main interests:
 - Complex systems science and agent-based computational economics
 - Technological change (network externalities, ICT, patents)
 - Industrial organisation and the economic microstructure at the firm level
 - Game theory

Organization

- There is a preliminary course outline with optional readings
 - There is also a more extensive reading list, including recommendations for further study
- Course material will be available through the course homepage
 - Try to post slides before, but check the updates after the lecture
 - For some topics, there will be an extended script (e.g. on networks)
- On average, one lecture a day is a lab session with the programming language *Python*
 - Extensive scripts available online (probably more than we cover here)
 - In German: complementary online course available
- At the end of each day: *very short* feedback survey (takes 1-2 minutes only)

Presentation of workshop results

- On Thursday, the morning sessions will be dedicated to preparing posters on the core concepts and ideas of the respective workshop

TIMETABLE									
TIME	FRI AUG 9	SAT AUG 10	SUN AUG 11	MON AUG 12	TUE AUG 13	WED AUG 14	THU AUG 15	FRI AUG 16	
08:00-09:00	Check in	BREAKFAST							+ PACKED LUNCH
09:00-10:30		Workshop Session 1	Workshop Session 4	Workshop Session 7	Workshop Session 10	Interdisciplinary 1	Wrap up	Final plenary	
10:30-11:00		COFFEE BREAK							
11:00-12:30		Workshop Session 2	Workshop Session 5	Workshop Session 8	Workshop Session 11	Interdisciplinary 2	Wrap up	Feedback	
12:30-14:30		LUNCH TIME							
14:30-16:00		Workshop Session 3	Workshop Session 6	Workshop Session 9	Excursion Erfurt Discover the city	Interdisciplinary 3	Presentations	Lunch / Departure	
16:00-16:30		COFFEE BREAK							
16:30-18:30		Welcome & Introduction	Open Space	Open Space	Open Space	Open Space	Presentations		
18:30-19:30		DINNER							
19:30-21:00		Evening Lecture	Socializing & Screening	Evening Lecture	Panel Debate	Public lecture	Panel Debate	Party	

- Thursday afternoon, these posters will be assembled into a gallery, followed by a ,gallery walk'
- Suggestion: work on the posters after the lectures on your own, approach us whenever necessary

Course outline

- Most of you chose the course to learn about methods, and the theory behind particular methods (>90%)
 - Learning a programming language was an important motivation as well (>70%)
 - From the methods, ABM was the overall favorite (>88 %)
 - The majority is interested in the meta-theoretical foundations
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- Lecture 1 (today) & beginning of 2: Meta-theoretical foundations and history of complexity economics
 - ▶ At the end of the history block, relate to further topics, based on meta-theoretical framework

Any remaining organizational questions?

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