



Seminar Series: Evolutionary game theory and cooperation:

Department of Languages and Cultural Studies

Prof. Christoph Hauert
University of British Columbia

8th of October 17.30 - 19.00 - DSLC Room B1.1

9th of October: 12:00 13.30 - DSLC Room B0.6

22nd of October: 17.30 - 19.00 - DSLC Room B1.1

23rd of October: 12.00 - 13.30 - DSLC Room B1.2

29th of October: 17.30 - 19.00 - DSLC Room B1.1

30th October: 12:00 alle 13.30 - DSLC Room B0.6

Topics of the lectures:

First part: Ultimatum game: theory and experiment

- The ultimatum game: fairness in human societies
- The axioms of preference relationship:
- Rational behavior and its contradictions:
 - o St. Peter's paradox
 - o Allais Paradox
- Fitness and fecundity as a measure of utility
- Competition in the ultimatum game

Second part: The problem of cooperation

- Modelling cooperation
- The prisoner's dilemma
- The snowdrift game
- The public goods game
- Continuous strategies
- Spatial structures
- Honor and shame in repeated public goods
- Climate change as a public good



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General indications about the course

Lectures will mix some theory related to the topics, but the level will be adapted to a non technical audience.

During the lectures, hands-on experiments will be organized for participating students, which will help students capture the intuition behind the theory.

Active participation is very welcome, which means both participation to the experiments, in-class discussion and questions.

The language of the course is English.

For students of DSLC

Participation to the course will allow students of DSLC to obtain a 2 credits reward which can be recorded as extracurricular activity.

To obtain the credits, students must attend at least 4 classes, participating to the in-class activities and finally complete a questionnaire that will be provided in class, and that the students will have to return to prof. Pancotto after completement of the seminars.

About the speaker

Prof Hauert is Professor of Mathematics at the University of British Columbia since 2016. He served as research associate at Harvard University, the Program for Evolutionary Dynamics, at the University of Vienna, Department of Mathematics, at the University of Kiel, department of theoretical physics.

His research interests are in the evolution of cooperation and the role of population structures.

Prof. Hauert published numerous research papers in prestigious scientific journals such as Nature, Science, Proceedings of the National Academy of Science, Journal of Theoretical Biology.

Organization

For any inquiry related to the seminar series, contact Prof. Francesca Pancotto at

f.pancotto@unimore.it