

# PhD Summer School: System models in Life Cycle Assessment

September 5-9, 2016

Grosshöchstetten, Switzerland

Registration deadline: May 15, 2016

Life Cycle Assessment (LCA) attempts to model the natural and industrial ecosystems of the world. To accomplish this rather ambitious task, many choices and assumptions have to be taken. These choices include how to classify and separate industrial activities, how to link and delineate regions and regional markets, average versus marginal producers, and how to do allocation. This summer school will examine many of these choices and assumptions in depth, and attendees will use new software to build and test their own system model.

In the first half of this summer school, experts from academia, applied research, and the ecoinvent centre will lead interactive teaching sessions (not endless lectures!) on system models, the use of meta-analysis to compare system models, and the summer school software. In the second half, students will apply these ideas to create their own system model. This new system model will be realized using new software developed especially for this summer school. The model will be designed to be as user-accessible as possible, though some basic understanding of Python will be necessary, and an introduction in Python is part of the syllabus. All software used in the summer school, both for meta-analysis and system modelling, is free and open source.

Students have two options for getting credit points. Those doing the preparatory reading and attending the summer school will receive 2 ETCS credit points. Students who choose to submit a written report after the summer school describing and analysing their system model will receive 3 ETCS credit points.

This summer school is primarily aimed at PhD students who are studying or using life cycle assessment, but postdocs are also welcome to apply. Enrolment is limited to 25 people. As the summer school is funded by a special grant from the ETH domain, participants from ETHZ and EPFL will be given preference, but international guests are very welcome and will be included if at all possible.

## Location:



The summer school will be held in the Möschberg seminar hotel, in Grosshöchstetten, Switzerland. This hotel is outside the village and up the hill, with views south towards the Bernese Alps. Möschberg also emphasizes local and organic food for its guests.

## Program:

Monday: Introduction to seminar and key concepts

Tuesday: System models in practice

Wednesday: Group formation and brainstorming

Thursday: Group work

Friday: Application and presentation

## Important details:

*Times:* The summer school starts at 10:00 on Monday and ends at 16:00 on Friday.

*Computers:* Students should bring their own

*Language:* The summer school will be in English

*Registration:* via email: [christopher.mutel@psi.ch](mailto:christopher.mutel@psi.ch)

Please include a short description of your research and background, and how the summer school could benefit you.

## Summer school fees:

Room	Shared double	Single
PhDs	300	420
Postdocs	500	620

All fees in Swiss Francs. Course fees includes room, materials, and all meals from Monday morning to Friday lunch, but do not include transportation. Single room availability is not guaranteed.

## Instructors:

Chris Mutel (PSI)

Stefanie Hellweg (ETH Zurich)

Gregor Wernet (ecoinvent centre)

Guillaume Bourgault (ecoinvent centre)

Stefan Pauliuk (Uni Freiburg)

Carl Vadenbo (ETH Zurich)