

DESIGN AND CONTROL OF MICROBIAL COMMUNITIES

SUMMER
SCHOOL
2023

11 SEPTEMBER

8:45 - 9:00 | OPENING

Registration

9:00 - 10:00 | DIDIER GONZE

Introductory talk: How to model microbial communities with differential equations?

10:00 - 11:00 | HIDDE DE JONG

Enhanced production of heterologous proteins in synthetic microbial consortia: conditions and trade-offs

11:00 - 11:30 | COFFEE BREAK

11:30 - 12:30 | FRANK DELVIGNE

A general framework for controlling the composition of microbial co-cultures based on reactive flow cytometry

12:30 - 13:30 | LUNCH BREAK

13:30 - 14:30 | ALEX FEDOREC

Two different approaches to community control

14:30 - 17:00 | HIDDE DE JONG

Tutorial: Dynamic models integrating metabolism and gene expression

15:00 - 15:15 | COFFEE BREAK

12 SEPTEMBER

9:00 - 10:00 | KAROLINE FAUST

Introductory talk: Metabolic modelling of microbial communities

10:00 - 11:00 | SHIRI FREILICH

Community modelling: using genomics for management of the microbiome in natural and agricultural ecosystems

11:00 - 11:30 | COFFEE BREAK

11:30 - 12:30 | BEATRIZ GARCÍA JIMÉNEZ

Metabolic Modeling and AI: Unlocking the Potential in Shaping Microbial Communities

12:30 - 13:30 | LUNCH BREAK

13:30 - 14:30 | OPHELIA VENTURELLI

Online presentation

14:30 - 17:00 | STEFFEN WALDHERR

Tutorial

15:00 - 15:15 | COFFEE BREAK

19:00 | SUMMER SCHOOL DINNER

Restaurant De Werf

13 SEPTEMBER

9:00 - 10:00 | LEO LAHTI

Introductory talk

10:00 - 11:00 | TEPPU HILTUNEN

11:00 - 11:30 | COFFEE BREAK

11:30 - 12:30 | LUTZ BECKS

Are there simple rules for predicting the composition of phytoplankton communities?

12:30 - 13:30 | LUNCH BREAK

13:30 - 14:30 | VILLE MUSTONEN

Determinants of microbial growth

14:30 - 17:00 | AURA RAULO

Tutorial: Metacommunity theory for microbiome design – manipulation of microbial communities through transmission networks

15:00 - 15:15 | COFFEE BREAK

17:00 - 17:15 | CLOSING