Microbiome analysis using mOTUs

## Time

15. August 2019: 9:00 – 17:30

## Location

Seminar Room 105, Main Building, University of Bern

## Format/Scope

Interactive course in workshop format on the use of mOTUs in microbiome analysis. Students will work individually on exercises covering an introduction to Unix, installation and basic use of the software, the effects of various parameters and understanding the output.

## Learning goals

Students should be able to install mOTUs in a suitable environment and understand how to run it on multiple samples, as well as the effects of the different parameters available on the output.

## Language of instruction

English

## Lecturers

Prof. Dr. Shinichi Sunagawa, Dr. Chris Field, Dr. Hans Ruscheweyh

## Required materials

Participants need to bring their own laptop computer

## Participants

Names

# Workshop Schedule

9:00 – 10:00 **Session 1: Introductory Lecture**

mOTUs motivation and method

Description of the data set

10:00 – 10:30 *Coffee Break*

10:30 – 12:00 **Session 2: Preparation and Installation**

Access virtual machines and Euler

Unix orientation

mOTUS installation and testing

12:00 – 14:00 *Lunch Break*

14:00 – 15:30 **Session 3: Running mOTUs**

Read quality filtering

Basic running on single and multiple samples

Available parameters and their effects on the output

15:30 – 16:00 *Coffee Break*

16:00 – 17:30 **Session 4: Looking at the Output in R**

Brief introduction to prepared R script

Comparison of samples and parameter sets

Database extension demonstration

Q & A