Summer School on "Computational Analysis - From Genomic Diversity to Ecosystem Structure", September 3-7, 2018, Florence, Italy

In the last decade impressive progress has been achieved in the field of Next-Generation DNA Sequencing (NGS), modifying the approach to microbial ecology. At the same time we observed a fast evolution of bioinformatics methodologies for data analysis, often available on the web as *open-source bioinformatics pipeline*.

Nowadays the costs for high-throughput sequencing have remarkably decreased, making it affordable for most of research laboratories; in contrast data analysis, requiring specific bioinformatics knowledge and skills, is still restricted to a small group of researchers.

One of the major goal of a scientific society is the education and the scientific improvement of its members, therefore SIMTREA organizes the "***Summer School on Computational Analysis - From Genomic Diversity to Ecosystem Structure".*** The main objective is training young researchers to develop and handle data analysis for microbial ecology projects requiring rigorous statistical design and analysis and the application of NGS technologies and the related data analyses.

Lectures and practical classes on Omics data analysis will be held at the School of Agriculture of the University of Florence by international Research Experts with consolidated research experience in Omics Techniques, Computational Data Analysis, Statistics, Microbial Ecology and Microbiology.

The course is offered to sixteen (16) young researchers i.e. PhD students or postdocs. In this edition, members of the Associazione per la Scienza e le Produzioni Animali (ASPA) will be also hosted***. Thirteen spots are reserved to members of SIMTREA (10) and ASPA (3) or applicants sponsored by a SIMTREA or ASPA member PI. Three (3) spots are open to international young researchers.***

Course registration, coffee breaks and accommodation costs for SIMTREA and ASPA members are already covered by the subscription to the society. For non-SIMTREA/ASPA participants, a 250-euro subscription fee is charged, that covers course registration, coffee breaks and accommodation costs. The 16 participants will be accommodated at a University residence for students or a hotel in Florence (double room).

For all participants touristic tax, travel costs and meals are not included.

Successful applicants will be selected on the basis of their CV and a research motivation statement.