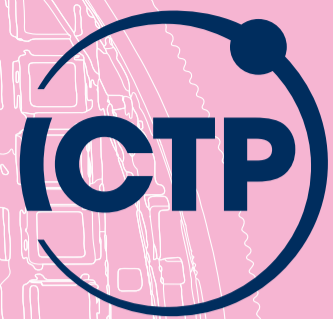


Eco-evolutionary Dynamics of Microbial Communities Across Scales



6 - 24 June 2022
An ICTP Huddle
Trieste, Italy

Further information:
<http://indico.ictp.it/event/9799/>
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Microbial communities populate every corner of our planet, providing essential services to the ecosystems they are part of. The forces shaping their organization act on wide spatial and temporal scales. The fundamental constituents of communities are individual cells, which, typically, experience a local environment of the order of tens of microns and duplicate as fast as 20 minutes. On the other hand, microbial communities modify the environment on a scale of tens of meters. Understanding how the interactions, the environmental fluctuations, and the phenotypic heterogeneity occurring at the micro-scale affect the large-scale properties of microbial communities is one of the main challenges in microbial ecology. More broadly, microbial communities are the prototypical example of complex adaptive systems: a large number of heterogeneous, adaptive, agents interact at a microscopic scale giving rise to emergent properties at the macroscopic scale. This huddle aims at bringing together experimentalists and theorists to develop new understanding and new approaches to connect the fundamental biological processes occurring at the microscale with the phenomena observed at the macroscale.

Topics:

- Microbial ecology
- Theoretical community ecology
- Spatial ecology
- Eco-evolutionary dynamics
- Stochastic processes
- Single-cell experimental ecology
- Macroecology
- Ecological networks
- Population genetics

How to apply:

Online application:
<http://indico.ictp.it/event/9799/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Directors:

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Deadline:

31 March 2022



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