

Special Issue

Advances in Microbial Community Engineering

Message from the Guest Editor

Mathematical modelling has proven an invaluable tool for numerous fields. The complexity of microbial systems, however, still poses a great challenge for modelling.

Microorganisms live in complex communities, and their activity and interactions at microscale determine the properties we measure at the macroscale. The mathematical models developed to describe and predict the microbial community behaviour vary widely in scale, focus, and complexity. In the era of -omics, highthroughput data, and machine learning, one can imagine models which would go from genome- to system-scale and guide the technologies involving engineered microbial systems.

This Special Issue on “Advances in Microbial Community Engineering” calls for contributions on recent advances in computational and mathematical modelling for microbial communities. We also welcome papers on the application of Artificial Intelligence in environmental biotechnology in general, and in the engineering of microbial communities in particular.

Keywords

microbial communities
mathematical modelling
mechanistic models
meta-omics
machine learning

Guest Editor

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closed (10 November 2021)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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