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## Channing Microbiome Seminar

October 27 (Friday), 2023, 9AM (ET)

Zoom: <https://us02web.zoom.us/j/81070959105?pwd=RFJNd3dSZmR6dXJZNjJiYVVzQ3NEQT09>

Meeting ID: 810 7095 9105

Passcode: 984617



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## Quantitative ecology of host-associated microbiomes

The realization that microbiomes, associated with virtually all multicellular organisms, have tremendous impact on their host health is considered as one of the most important scientific discoveries in the last decade. The host-associated microbiomes, composed of tens to hundreds of co-existing microbial species, are highly heterogenous at multiple scales (e.g. between different hosts and within a host). In this talk, I will share our recent works on understanding the heterogeneity of complex microbial communities, and how these conceptual and technological advances in microbial ecology pave the way for precision microbiome engineering to prevent and treat diseases.

*Bio: Dr. Lei Dai is currently a Principal Investigator at the Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Sciences. His research group at SIAT develops novel experimental and computational approaches to study the ecology of complex microbial communities and improve host health via precision microbiome engineering. His recent works have been published in Cell Host & Microbe, Nature Communications, ISME Journal, iMeta, etc. Dr. Dai received B.S. in Physics at University of Science and Technology of China and Ph.D. in Physics at Massachusetts Institute of Technology. He was a Jane Coffin Childs postdoctoral fellow at UCLA School of Medicine.*

