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Department of Medicine
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Channing Network Science Seminar

June 16 (Friday), 2017, 11am @ 5th floor conference room



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Unraveling the Structure of Fitness Landscapes

Fitter proteins are selected by natural selection. The sequence-fitness mapping, i.e. fitness landscapes, is critical for understanding the mechanisms of protein evolution. Recently, the throughput of fitness assays has been improved substantially by deep sequencing. In this talk, I will present examples of how we integrate high-throughput experiments, bioinformatics, and theoretical analysis to uncover statistical patterns and nonlinearity in the structure of protein fitness landscapes.

Bio: Lei Dai is studying the evolution of biomolecules and microbes as a Jane Coffin Childs postdoctoral fellow at UCLA. He received his Ph.D. in physics at Massachusetts Institute of Technology in 2014.

Hosted by Yang-Yu Liu