CARLOS SERVAN  
Department of Ecology and Evolution  
University of Chicago  
Assembly of Many-Species Ecosystems  
THURSDAY, February 21, 2019, at 1:00 PM  
Jones 226, 5747 South Ellis Avenue  

ABSTRACT

Rich ecosystems harbour thousands of species interacting in tangled networks encompassing predation, mutualism and competition. Such widespread biodiversity is puzzling, because in ecological models it is exceedingly improbable for large communities to stably coexist. One aspect rarely considered in these models, however, is that coexisting species in natural communities are a selected portion of a much larger pool, which has been pruned by population dynamics. By incorporating this aspect we will show that many-species systems can arise without the need of explicitly fine-tuning the parameters of the models. Connections with bottom up assembly will also be discussed.