Abstract for an Invited Paper
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Statics and dynamics of ecosystems
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Understanding an ecological community represents a formidable many-body problem - one has an interacting many-body system with imperfectly known interactions and a wide range of spatial and temporal scales. In tropical forests across the globe, ecologists have been able to measure certain quantities such as the distribution of relative species abundance; the probability that two trees drawn randomly a specified distance apart belong to the same species; and the dynamics of species turnover. A simple analytic framework will be presented for describing the statics and dynamics of ecosystems and its predictions will be benchmarked against observational data.


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