Bipartite Network Models for Food Systems

Hari Pulapaka, Stetson University

In this talk, we apply the underlying structure of a bipartite network to various pairs of entities of a food system. Doing so generates a number of relationship graphs, some of which may then be analyzed as weighted networks for the purposes of a deeper understanding of the underlying food system. We give some examples that illustrate the insight that may be gained by these discrete models and present opportunities to expand this work to be fully representative of the interconnections within a food system. Considering that virtually every one of the 17 Sustainable Development Goals (SDGs) adopted by all United Nations Member States have strong ties to food systems, by leveraging the deep understating we already have of weighted graphs, we hope that their application to discrete network models for food systems will reveal new and exciting pathways for a more sustainable future for all.