



Working Group on Statistical Learning Seminar

Title: Statistical Network Analysis of Animal Societies

Speaker: Prabhleen Kaur (University College Dublin)

Date: Mon 27th September 2021 at 12:00PM

Location: Online

Abstract: Animal social network analysis facilitates biologists to investigate the causes and consequences of social interactions within the animal community and evaluate their effects on the ecosystem. It serves in answering a wide range of questions about social evolution, behaviour, dynamical processes and aids in the study of transmission events such as the spread of disease and social learning. Wild biological data is prone to the biases inflicted by specifics of sampling protocols and the species under study. Social networks are relational data and random sampling of animals from a population has been recognised as a concern. We use a range of statistical techniques including subsampling, correlation and regression analysis, bootstrapping on the network data and network permutations to determine the effects of random sampling from a population on the accuracy of network summary statistics. This research will serve as a scientific basis for taking methodological decisions prior to a start of new ecological study. Software is being developed to act as a ready-made toolkit for the ecologists working in this field and enable them to directly apply the analytical methods in their studies.

Join the Zoom call: <https://ucd-ie.zoom.us/j/68316324831>