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Date: 26/03/2024 at 13:15 in 1 West 2.02

Title: Designing experiments on networks

Abstract:

The design of experiments provides a formal framework for the collection of data to aid decision making. When such experiments are performed on connected units linked through a network, the resulting design and analysis are more complex; e.g. is the observed response from a given unit due to the direct effect of the treatment applied to that unit or the result of a network, or viral, effect arising from treatments applied to connected units?

In this talk, I propose a methodology for constructing efficient designs which control for variation among the experimental units arising from network interference, so that the direct treatment effects can be precisely estimated. Performance gains over conventional designs will be demonstrated via different example experiments.