L'inférence causale en présence de dépendance et de structure de réseau
« Atelier sur la découverte de la structure causale à haute dimension »
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Causal Inference in the Presence of Dependence and Network Structure
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A Bayesian causal effect estimation algorithm for adjusting for confounding

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Estimating causal exposure effects in observational studies ideally requires the analyst to have a vast knowledge of the domain of application. Investigators often bypass difficulties related to the identification and selection of confounders through the use of fully adjusted outcome regression models. However, since such models likely contain more covariates than required, the variance of the regression coefficient for exposure may be unnecessarily large. Instead of using a fully adjusted model, model selection can be attempted. Most classical statistical model selection approaches, such as Bayesian model averaging, do not readily address causal effect estimation. We present a model averaged approach to causal inference, Bayesian causal effect estimation (BCEE), which is motivated by the graphical framework for causal inference, but does not require knowledge of the causal graph. BCEE aims to unbiasedly estimate the causal effect of a continuous exposure on a continuous outcome while being more efficient than a fully adjusted approach.

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