

## Markov equivalence classes of directed acyclic graphs

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Can we reconstruct a directed acyclic graph having only access to its  $v$ -structures, encoding conditional independence between the sites, but without knowing its edge directions? In this talk, we study the probability to have a unique way of such a reconstruction when the directed acyclic graph  $G$  is chosen uniformly at random on a fixed number of sites. More generally, we study the size of its Markov equivalence class, containing all graphs with the same edge set as  $G$  when forgetting the edge directions, and having the same  $v$ -structures.

This talk is based on ongoing work with Allan Sly (Princeton University).