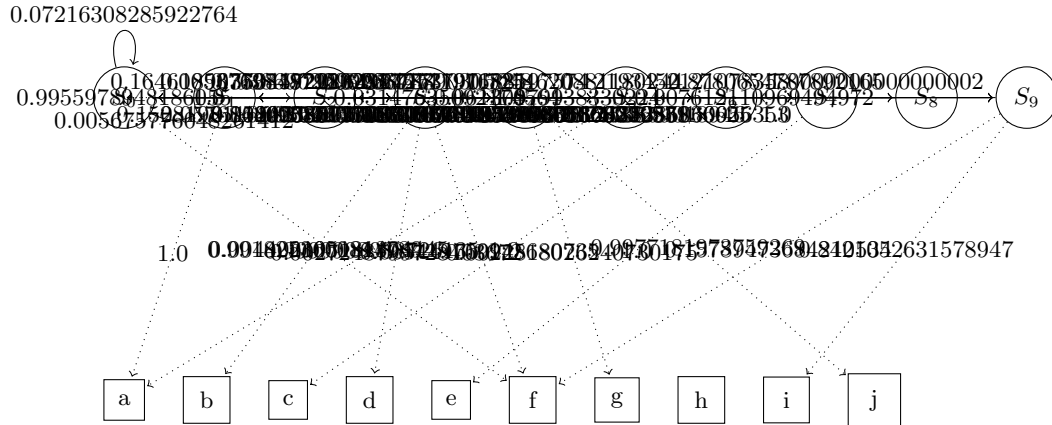# Leveraging Hidden Markov Models in Process Mining

Ying Stokes[1] and Anna Kalenkova[1]

University of Adelaide

Abstract. In the field of process mining, there are many ways to model and discover processes. One of the most promising yet under-researched approaches is that of using hidden Markov models, a variation of Markov models with "hidden" states. Hidden Markov models are promising in process mining due to their noise resistance and ability to discover emergent processes. This paper aims to evaluate the application of hidden Markov models in process mining, and to investigate some of the variables that affect their performance.

1 Toy Example

$$D(P||M) = 0.12090523521500017$$