ABSTRACT

Aspects concern a method for scalable incremental weighted sampling, the method including compiling an input Boolean formula representing a space to be sampled from, to obtain an ordered binary decision diagram[∧] (OBDD[∧]), and parameterizing the obtained OBDD[∧] to obtain a probabilistic OBDD[∧] (PROB). The method further includes smoothing the obtained PROB by adding conjunction nodes to the obtained PROB, and performing the weighted sampling from the smoothed PROB to obtain at least one assignment corresponding to a traversal through the smoothed PROB to a true node included in the smoothed PROB, while performing annotation of the smoothed PROB.

[Fig. 2]