Building Adaptive Tests Using Bayesian Networks

Jiří Vomlel

Abstract: We propose a framework for building decision strategies using Bayesian network models and discuss its application to adaptive testing. Dynamic programming and AO^* algorithm are used to find optimal adaptive tests. The proposed AO^* algorithm is based on a new admissible heuristic function.

Keywords: Bayesian networks; adaptive testing; heuristic search;

AMS Subject Classification: 68T37;