



# Evaluating the Max-Min Hill-Climbing Estimation of Distribution Algorithm on B-Functions

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## Abstract

*In this paper we evaluate a new Estimation of Distribution Algorithm (EDA) constructed on top of a very successful Bayesian network learning procedure, Max-Min Hill-Climbing (MMHC). The aim of this paper is to check whether the excellent properties reported for this algorithm in machine learning papers, have some impact on the efficiency and efficacy of EDA based optimization. Our experiments show that the proposed algorithm outperform wellknown state of the art EDA like BOA and EBNA in a test bed based on Bfunctions. On the basis of these results we conclude that the proposed scheme is a promising candidate for challenging real-world applications, specifically, problems related to the areas of Data Mining, Patter Recognition and Artificial Intelligence.*

**Keywords:** *Estimation of distribution algorithms, B-functions Bayesian networks, Dependency learning, Evolutionary optimization*

Disponible en <https://www.springer.com/gp/book/9783030011314>



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