

Measuring Distributed Constraint Optimization algorithms

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Abstract. Complete algorithms for solving DisCOPs have been a major focus of research in the DCR community in the last few years. The properties of these algorithms belong to very different categories. Algorithms differ by their degree of asynchronicity, by the method of their combinatorial part, and by dividing the problem into sub parts. The wide variety of different families of algorithms makes it hard to find a uniform method for measuring and comparing their performance. The present paper proposes a uniform performance scale which is applicable for all DisCOP algorithms. The proposed performance measure enables an evaluation of the different DisCOP algorithms on a uniform scale, which was not published before. Preliminary results are presented and display the hierarchy of DisCOP search algorithms according to their performance on random DisCOPs.