



From parameter control to search control: Parameter Control Abstraction in Evolutionary Algorithms

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Auteur	Maturana, Jorge [1], Saubion, Frédéric [2]
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Résumé en anglais	<p>This paper presents a method to encapsulate parameters of evolutionary algorithms and to create an abstraction that simplifies the control and the understanding of the internal behavior of the algorithm. A fuzzy model is used to learn the effects of parameters over the search process. Then, high-level strategies can be defined to modify parameters automatically in order to achieve a scheduled level of balance between exploration and exploitation during the search. We experimented supervised control strategies and autonomous schemes that adjust parameters dynamically. Experiments have been performed on the Quadratic Assignment Problem in order to analyze the strengths and weaknesses of each approach. Possible improvements of the general methodology are also discussed.</p>
URL de la notice	http://okina.univ-angers.fr/publications/ua4297 [8]
Lien vers le document	http://cs.brown.edu/people/pvh/CPL/Papers/v4/Paper3%28pp39-65%29.pdf [9]

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