A Compass to Guide Genetic Algorithms

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Résumé en anglais	Parameter control is a key issue to enhance performances of Genetic Algorithms (GA). Although many studies exist on this problem, it is rarely addressed in a general way. Consequently, in practice, parameters are often adjusted manually. Some generic approaches have been experimented by looking at the recent improvements provided by the operators. In this paper, we extend this approach by including operators' effect over population diversity and computation time. Our controller, named Compass, provides an abstraction of GA's parameters that allows the user to directly adjust the balance between exploration and exploitation of the search space. The approach is then experimented on the resolution of a classic combinatorial problem (SAT).
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