



An Exploration-exploitation Compromise-based Adaptive Operator Selection for Local Search

Submitted by Emmanuel Lemoine on Mon, 10/06/2014 - 18:26

Titre	An Exploration-exploitation Compromise-based Adaptive Operator Selection for Local Search
Type de publication	Communication
Type	Communication avec actes dans un congrès
Année	2012
Langue	Anglais
Date du colloque	2012
Titre du colloque	GECCO '12
Titre des actes ou de la revue	Proceedings of the 14th Annual Conference on Genetic and Evolutionary Computation
Pagination	1277 - 1284
Auteur	Veerapen, Nadarajen [1], Maturana, Jorge [2], Saubion, Frédéric [3]
Pays	Etats-Unis
Editeur	ACM
Ville	Philadelphie
ISBN	978-1-4503-1177-9
Mots-clés	adaptive operator selection [4], autonomous search [5], Local search [6]
Résumé en anglais	<p>This paper deals with the adaptive selection of operators in the context of local search (LS). In evolutionary algorithms, diversity is a key concept. We consider a related idea: the similarity between the candidate solution and the solutions in the search trajectory. This notion, together with the solution quality, is used to evaluate the performance of each operator. A new utility measure for LS operators, evaluating relative distances between the operators, is introduced. It is compared with an existing measure based on the Pareto dominance relationship using some basic selection schemes. An adaptive version of the algorithm is also examined. The proposed methods are tested on the Quadratic Assignment Problem and Asymmetric Traveling Salesman Problem.</p>
Notes	Date du colloque : 07/2012
URL de la notice	http://okina.univ-angers.fr/publications/ua4507 [7]
DOI	10.1145/2330163.2330340 [8]
Lien vers le document en ligne	http://doi.acm.org/10.1145/2330163.2330340 [9]

Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=13296](http://okina.univ-angers.fr/publications?f[author]=13296)
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=7534](http://okina.univ-angers.fr/publications?f[author]=7534)
- [3] <http://okina.univ-angers.fr/frederic.saubion/publications>

- [4] [http://okina.univ-angers.fr/publications?f\[keyword\]=8903](http://okina.univ-angers.fr/publications?f[keyword]=8903)
- [5] [http://okina.univ-angers.fr/publications?f\[keyword\]=8937](http://okina.univ-angers.fr/publications?f[keyword]=8937)
- [6] [http://okina.univ-angers.fr/publications?f\[keyword\]=8640](http://okina.univ-angers.fr/publications?f[keyword]=8640)
- [7] <http://okina.univ-angers.fr/publications/ua4507>
- [8] <http://dx.doi.org/10.1145/2330163.2330340>
- [9] <http://doi.acm.org/10.1145/2330163.2330340>

Publié sur *Okina* (<http://okina.univ-angers.fr>)