



## An efficient probabilistic population-based descent for the median genome problem

Submitted by Adrien Goeffon on Thu, 02/12/2015 - 12:11

Titre An efficient probabilistic population-based descent for the median genome problem  
Type de publication Communication  
Type Communication avec actes dans un congrès  
Année 2008  
Langue Anglais  
Titre du colloque Proceedings of the 10th annual conference on Genetic and evolutionary computation - GECCO '08  
Auteur Goëffon, Adrien [1], Nikolski, Macha [2], Sherman, David J [3]  
Editeur ACM Press  
Ville Atlanta, GA, USANew York, New York, USA  
ISBN 9781605581309

Résumé en anglais We present a novel population-based local search algorithm for the median genome problem. The primary result of this article is that this probabilistic approach significantly improves the performance of ancestral genome reconstruction compared to existing methods, making it possible to tackle problems where the contemporary genomes may contain many hundreds of markers. Moreover, our method is not limited to triples of genomes, and thus solves the median genome problem in its generality. We show that in real application cases the computational results are highly robust, suggesting that we can interpret the computed median genomes as candidates carrying the semantics of ancestral architectures.

URL de la notice <http://okina.univ-angers.fr/publications/ua7703> [4]  
DOI 10.1145/1389095.1389151 [5]

---

### Liens

- [1] <http://okina.univ-angers.fr/adrien.goeffon/publications>
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=11677](http://okina.univ-angers.fr/publications?f[author]=11677)
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=11707](http://okina.univ-angers.fr/publications?f[author]=11707)
- [4] <http://okina.univ-angers.fr/publications/ua7703>
- [5] <http://dx.doi.org/10.1145/1389095.1389151>

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