



## Migration policies in dynamic island models

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Titre	Migration policies in dynamic island models
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Auteur	Lardeux, Frédéric [1], Maturana, Jorge [2], Rodriguez-Tello, Eduardo [3], Saubion, Frédéric [4]
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Résumé en anglais	<p>Dynamic island models are population-based algorithms for solving optimization problems, where the individuals of the population are distributed on islands. These subpopulations of individuals are processed by search algorithms on each island. In order to share information within this distributed search process, the individuals migrate from their initial island to another destination island at regular steps. In dynamic island models, the migration process evolves during the search according to the observed performance on the different islands. The purpose of this dynamic/adaptive management of the migrations is to send the individuals to the most promising islands, with regards to their current states. Therefore, our approach is related to the adaptive management of search operators in evolutionary algorithms. In this work, our main purpose is thus to precisely analyze dynamic migration policies. We propose a testing process that assigns gains to the algorithms applied on the islands in order to assess the adaptive ability of the migration policies, with regards to various scenarios. Instead of having one dynamic migration policy that is applied to the whole search process, as it has already been studied, we propose to associate a migration policy to each individual, which allows us to combine simultaneously different migration policies.</p>
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### Liens

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