



Breadth first search coding of multitype forests with application to Lamperti representation

Submitted by Loïc Chaumont on Tue, 08/25/2015 - 16:01

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Type de publication Article de revue

Auteur Chaumont, Loïc [1]

Editeur Springer

Type Article scientifique dans une revue à comité de lecture

Année 2015

Langue Anglais

Numéro XLVII

Pagination 561-584

Volume 2137

Titre de la revue Séminaire de Probabilités

ISSN 0720-8766

Résumé en anglais We obtain a bijection between some set of multidimensional sequences and this of d-type plane forests which is based on the breadth first search algorithm. This coding sequence is related to the sequence of population sizes indexed by the generations, through a Lamperti type transformation. The same transformation is then obtained in continuous time for multitype branching processes with discrete values. We show that any such process can be obtained from a d2 dimensional compound Poisson process time changed by some integral functional. Our proof bears on the discretisation of branching forests with edge lengths.

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DOI 10.1007/978-3-319-18585-9 [3]

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