

1. Record Nr.	UNINA9910813659503321
Autore	Cox J. T.
Titolo	Mutually catalytic super branching random walks : large finite systems and renormalization analysis // J. T. Cox, D. A. Dawson, A. Greven
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , 2004 ©2004
ISBN	1-4704-0410-9
Descrizione fisica	1 online resource (97 p.)
Collana	Memoirs of the American Mathematical Society, , 0065-9266 ; ; Volume 171, Number 809
Disciplina	519.234
Soggetti	Branching processes Random walks (Mathematics) Random measures Renormalization (Physics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Volume 171, Number 809 (second of 4 numbers)."
Nota di bibliografia	Includes bibliographical references (p. 95-97).
Nota di contenuto	""Contents""; ""0 Introduction""; ""(a) Background and motivation""; ""(b) The model and review of the basic ergodic theory""; ""1 Results: Longtime behavior of large finite systems""; ""(a) The finite system scheme""; ""(b) The meana€?field finite system scheme""; ""2 Results: Renormalization analysis and corresponding basic limiting dynamics""; ""(a) The multiple spacea€?time scale analysis""; ""(b) The entrance law of the interaction chain""; ""(c) Renormalization analysis and spatial continuum limit""; ""3 Results: Application of renormalization to large scale behavior"" ""(a) Details on the formation of monotype clusters""""(b) Finer properties of equilibria in the case of coexistence""; ""(c) Finer properties of the continuum limit""; ""(d) Outlook: The problem of universality""; ""4 Preparation: Key technical tools""; ""(a) Duality relations""; ""(b) State space of the process and wella€?posedness""; ""(c) Properties of the equilibrium $T[\sup(c,l^3)][\sub(l^?)]$ ""; ""(d) Stability properties""; ""5 Finite system scheme (Proof of Theorems 1,2)""; ""(a) The finite system scheme (Proof of Theorem 1)"" ""(b) The meana€?field finite system scheme (Proof of Theorem 2)""""6 Multiple spacea€?time scale analysis (Proof of Theorem 3, 5)""; ""(a)

Hierarchical two level mutually catalytic branching"; "(b) Hierarchical
K-level mutually catalytic branching"; "(c) Conclusion of the Proof of
Theorem 3"; "(d) Proof of Theorem 5"; "7 Analysis of the interaction
chain (Proof Theorem 4, 6 a 8)"; "(a) Entrance laws of the interaction
chain (Proof of Theorem 4)"; "(b) Cluster formation (Proof of
Theorem 6)"; "(c) Equilibrium fluctuations (Proof of Theorem 7)"
"(d) Mean field continuum limit (Proof of Proposition 3.1 and
Theorem 8)"
