cases	doc_1		doc_2		decision	id
	authors	• Gastao A. Braga • Frederico Furtado • Jussara M. Moreira • Leonardo T. Rolla	**authors**	• G. Braga • F. Furtado • J. M. Moreira • L. Rolla	DUPLICATES	132
	title	Renormalization Group Analysis of Nonlinear Diffusion Equations with Periodic Coefficients	**title**	Renormalization Group Analysis of Nonlinear Diffusion Equations with Periodic Coefficients		
	publication_date	2009-06-11 20:30:37+00:00	**publication_date**	2009-06-11 00:00:00		
	source	SupportedSources.ARXIV	**source**	SupportedSources.SEMANTIC_SCHOLAR		
	journal	SIAM Multiscale Modeling and Simulation, v. 1, n. 4, p. 630-644, 2003	**journal**	Multiscale Model. Simul.		
	volume		**volume**	1		
	doi		**doi**	10.1137/S1540345902416600		
	urls	• http://arxiv.org/pdf/0906.2206v2 • http://arxiv.org/abs/0906.2206v2 • http://arxiv.org/pdf/0906.2206v2	**urls**	• https://www.semanticscholar.org/paper/6ac9b23135ff65bd2aa03b68c1772ed283a33c75		
	id	id-7715277317608228980	**id**	id1505818839676438368		
	abstract	In this paper we present an efficient numerical approach based on the Renormalization Group method for the computation of self-similar dynamics. The latter arise, for instance, as the long-time asymptotic behavior of solutions to nonlinear parabolic partial differential equations. We illustrate the approach with the verification of a conjecture about the long-time behavior of solutions to a certain class of nonlinear diffusion equations with periodic coefficients. This conjecture is based on a mixed argument involving ideas from homogenization theory and the Renormalization Group method. Our numerical approach provides a detailed picture of the asymptotics, including the determination of the effective or renormalized diffusion coefficient.	**abstract**	In this paper we present an efficient numerical approach based on the renormalization group method for the computation of self-similar dynamics. The latter arise, for instance, as the long-time asymptotic behavior of solutions to nonlinear parabolic partial differential equations. We illustrate the approach with the verification of a conjecture about the long-time behavior of solutions to a certain class of nonlinear diffusion equations with periodic coefficients. This conjecture is based on a mixed argument involving ideas from homogenization theory and the renormalization group method. Our numerical approach provides a detailed picture of the asymptotics, including the determination of the effective or renormalized diffusion coefficient.		
	versions		**versions**			