Pullback attractors for non-autonomous parabolic equations involving Grushin operators

Anh C.T.

Department of Mathematics, Hanoi National University of Education, 136 Xuan Thuy, Cau Giay, Hanoi, Viet Nam

Abstract: Using the asymptotic a priori estimate method, we prove the existence of pullback attractors for a non-autonomous semilinear degenerate parabolic equation involving the Grushin operator in a bounded domain. We assume a polynomial type growth on the nonlinearity, and an exponential growth on the external force. The obtained results extend some existing results for non-autonomous reaction-diffusion equations. © 2010 Texas State University - San Marcos.

Author Keywords: Asymptotic a priori estimate method; Compactness method; Global solution; Grushin operator; Non-autonomous degenerate equation; Pullback attractor

Year: 2010
Source title: Electronic Journal of Differential Equations
Volume: 2010
Page : 1-14
Link: Scopus Link
Correspondence Address: Anh, C. T.; Department of Mathematics, Hanoi National University of Education, 136 Xuan Thuy, Cau Giay, Hanoi, Viet Nam; email: anhctmath@hnue.edu.vn
ISSN: 10726691
Language of Original Document: English
Abbreviated Source Title: Electronic Journal of Differential Equations
Document Type: Article
Source: Scopus
Authors with affiliations:
1. Anh, C.T., Department of Mathematics, Hanoi National University of Education, 136 Xuan Thuy, Cau Giay, Hanoi, Viet Nam

References:
13. F. Ma, S. H. Wang and C. K. Zhong