



MBE:

Mathematical Biosciences and Engineering

Volume 4 • Number 4 • October 2007

ISSN 1547-1063

Vol. 4 • No. 4 • October 2007

MBE:

Mathematical Biosciences and Engineering

Volume 4 • Number 4 • October 2007

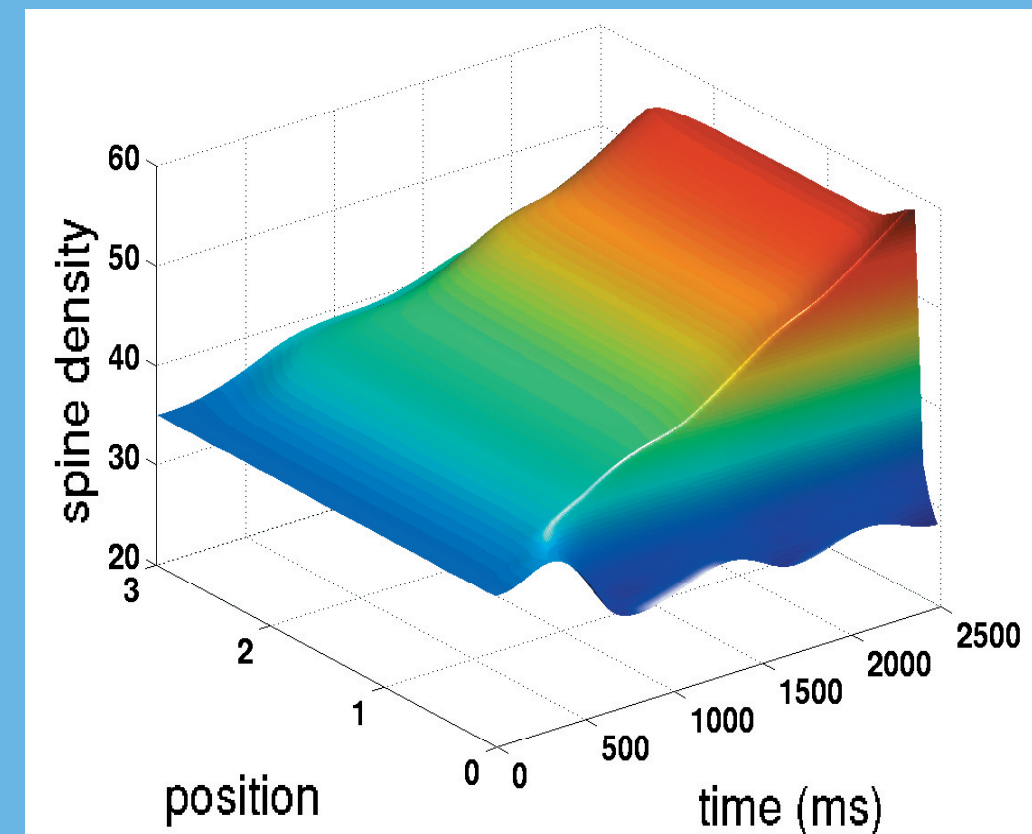
ISSN 1547-1063
Electronic ISSN 1551-0018

CONTENTS

- Shangbing Ai,**
Global stability of equilibria in a tick-borne disease model 567
- J. R. Artalejo, A. Economou and M. J. Lopez-Herrero,**
Evaluating growth measures in an immigration process subject to binomial and geometric catastrophes 573
- Nicolas Bacaer, Xamxinur Abdurahman, Jianli Ye and Pierre Auger ,**
On the basic reproduction number R_0 in sexual activity models for HIV/AIDS epidemics: Example from Yunnan, China 595
- Michele Barbi, Angelo Di Garbo and Rita Balocchi,**
Improved integrate-and-fire model for RSA 609
- S. M. Crook, M. Dur-e-Ahmad and S. M. Baer,**
A model of activity-dependent changes in dendritic spine density and spine structure 617
- Wandi Ding,**
Optimal control on hybrid ODE Systems with application to a tick disease model 633
- Peng Feng and Menaka Navaratna,**
Modelling periodic oscillations during somitogenesis 661
- Zhilan Feng,**
Final and peak epidemic sizes for SEIR models with quarantine and isolation 675
- Elena Izquierdo-Kulich and Jose Manuel Nieto-Villar,**
Mesoscopic model for tumor growth 687
- Jianquan Li, Zhien Ma and Fred Brauer,**
Global analysis of discrete-time SI and SIS epidemic models 699
- Dana Paquin, Doron Levy and Lei Xing,**
Hybrid multiscale landmark and deformable image registration 711
- Qingling Zeng, Kamran Khan, Jianhong Wu and Huaiping Zhu,**
The utility of preemptive mass influenza vaccination in controlling a SARS outbreak during flu season 739
- Jian Zu, Wendi Wang and Bo Zu,**
Letter to the editors 755

Mathematical Biosciences and Engineering

Pages 567–755



American Institute of Mathematical Sciences • Beihang University

