



Q K 1 8 1 3 2 7 2

ISSN 0253-4827

CN 31-1650/O1

CODEN AMMEEQ

AMM

# APPLIED MATHEMATICS AND MECHANICS

(English Edition)



Project for Enhancing International  
Status of China STM Journals

Vol. 39 No. 4 Apr. 2018

应用数学和力学(英文版)

AMM Editorial Office of AMM

 Springer

万方数据

## CONTENTS

Commenced in May 1980

Vol. 39 No. 4 Apr. 2018 (Monthly)

- Cures for expansion shock and shock instability of Roe scheme based  
on momentum interpolation mechanism ..... (455)  
Xuesong LI, Xiaodong REN, Chunwei GU
- Numerical simulation of chemically reactive Powell-Eyring liquid flow with  
double diffusive Cattaneo-Christov heat and mass flux theories ..... (467)  
A. RAUF, Z. ABBAS, S. A. SHEHZAD, A. ALSAEDI, T. HAYAT
- Investigation of turbulence and skin friction modification in particle-laden  
channel flow using lattice Boltzmann method ..... (477)  
Ming PAN, Qingxiang LI, Shuai TANG, Yuhong DONG
- Feasibility study of symmetric solution of molecular argon flow  
inside microscale nozzles ..... (489)  
S. M. H. KARIMIAN, A. AMANI, M. SEYEDNIA
- Variable viscosity in peristalsis of Sisko fluid ..... (501)  
A. TANVEER, T. HAYAT, A. ALSAEDI
- Comparative study of two lattice Boltzmann multiphase models for  
simulating wetting phenomena: implementing static contact  
angles based on the geometric formulation ..... (513)  
Feng YE, Qinfeng DI, Wenchang WANG, Feng CHEN,  
Huijuan CHEN, Shuai HUA
- Nonlocal buckling of embedded magnetoelastic sandwich  
nanoplate using refined zigzag theory ..... (529)  
A. GHORBANPOUR-ARANI, F. KOLAHDOUZAN, M. ABDOLLAHIAN
- Electro-viscoelastic behaviors of circular dielectric elastomer membrane  
actuator containing concentric rigid inclusion ..... (547)  
Zhengang WANG, Tianhu HE
- Small scale effects on buckling and postbuckling behaviors of axially loaded FGM  
nanoshells based on nonlocal strain gradient elasticity theory ..... (561)  
S. SAHMANI, A. M. FATTABI
- Finite element method for coupled diffusion-deformation theory  
in polymeric gel based on slip-link model ..... (581)  
Hengdi SU, Huixian YAN, Bo JIN
- Complex modes and traveling waves in axially moving Timoshenko beams ..... (597)  
Youqi TANG, Erbao LUO, Xiaodong YANG

ISSN 0253-4827

ISSN 0253-4827  
CN 31-1650/O1



9 770253 482182

## CONTENTS

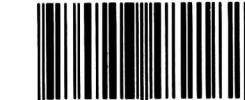
Commenced in May 1980

Vol. 39 No. 4 Apr. 2018 (Monthly)

- Cures for expansion shock and shock instability of Roe scheme based  
on momentum interpolation mechanism ..... (455)  
Xuesong LI, Xiaodong REN, Chunwei GU
- Numerical simulation of chemically reactive Powell-Eyring liquid flow with  
double diffusive Cattaneo-Christov heat and mass flux theories ..... (467)  
A. RAUF, Z. ABBAS, S. A. SHEHZAD, A. ALSAEDI, T. HAYAT
- Investigation of turbulence and skin friction modification in particle-laden  
channel flow using lattice Boltzmann method ..... (477)  
Ming PAN, Qingxiang LI, Shuai TANG, Yuhong DONG
- Feasibility study of symmetric solution of molecular argon flow  
inside microscale nozzles ..... (489)  
S. M. H. KARIMIAN, A. AMANI, M. SEYEDNIA
- Variable viscosity in peristalsis of Sisko fluid ..... (501)  
A. TANVEER, T. HAYAT, A. ALSAEDI
- Comparative study of two lattice Boltzmann multiphase models for  
simulating wetting phenomena: implementing static contact  
angles based on the geometric formulation ..... (513)  
Feng YE, Qinfeng DI, Wenchang WANG, Feng CHEN,  
Huijuan CHEN, Shuai HUA
- Nonlocal buckling of embedded magnetoelastic sandwich  
nanoplate using refined zigzag theory ..... (529)  
A. GHORBANPOUR-ARANI, F. KOLAHDOUZAN, M. ABDOLLAHIAN
- Electro-viscoelastic behaviors of circular dielectric elastomer membrane  
actuator containing concentric rigid inclusion ..... (547)  
Zhengang WANG, Tianhu HE
- Small scale effects on buckling and postbuckling behaviors of axially loaded FGM  
nanoshells based on nonlocal strain gradient elasticity theory ..... (561)  
S. SAHMANI, A. M. FATTABI
- Finite element method for coupled diffusion-deformation theory  
in polymeric gel based on slip-link model ..... (581)  
Hengdi SU, Huixian YAN, Bo JIN
- Complex modes and traveling waves in axially moving Timoshenko beams ..... (597)  
Youqi TANG, Erbao LUO, Xiaodong YANG

ISSN 0253-4827

ISSN 0253-4827  
CN 31-1650/O1



9 770253 482182