



VOLUME 9 ISSUE 1 | January 2019 |

ISSN 2095-0349  
CN 11-5991/03

# TAML

THEORETICAL  
& APPLIED  
MECHANICS  
LETTERS

力学快报 (英文)



Institute of Mechanics,  
Chinese Academy of Sciences



The Chinese Society of  
Theoretical and Applied Mechanics

[taml.cstam.org.cn](http://taml.cstam.org.cn)

## CONTENTS

### *Solid Mechanics*

- An energy approach to predict electromigration induced grain rotation under high current density  
*Y.X. Wang, Y. Yao* 21
- Effects of interfacial discontinuity on the fracture behavior in the superconductor-substrate system  
*L. Jiang, X.Q. Ren, Z.W. Gao, Y.H. Zhou* 43
- Investigation on structural component behaviours of double bottom arrangement under grounding accidents  
*A.R. Prabowo, T. Muttaqie, J.M. Sohn, B.I.R. Harsritanto* 50

### *Fluid Mechanics*

- Seepage-stress coupled modeling for rainfall induced loess landslide  
*D.Y. Zhou, Z. Zhang, J.C. Li, X.L. Wang* 7
- Key structure in laminar-turbulent transition of boundary layer with streaky structures  
*J. Yoshikawa, Y. Nishio, S. Izawa, Y. Fukunishi* 32
- Electrokinetic flow in the U-shaped micro-nanochannels  
*B.L. Qiu, L.Y. Gong, Z.R. Li, J.Y. Han* 36

### *Dynamics and Control*

- Optimal control of a mobile robot on sphere  
*H.G. Liu, D.H. Shi* 27

### *Biomechanics and Interdiscipline*

- Lattice Boltzmann model of percutaneous drug absorption  
*A. Safdari, K.C. Kim* 1
- Dependency of gamma oscillations in E/I neuronal network on illumination contrast of external stimulus  
*X.C. Gu, F. Han, Z.J. Wang, X. Peng* 14

