



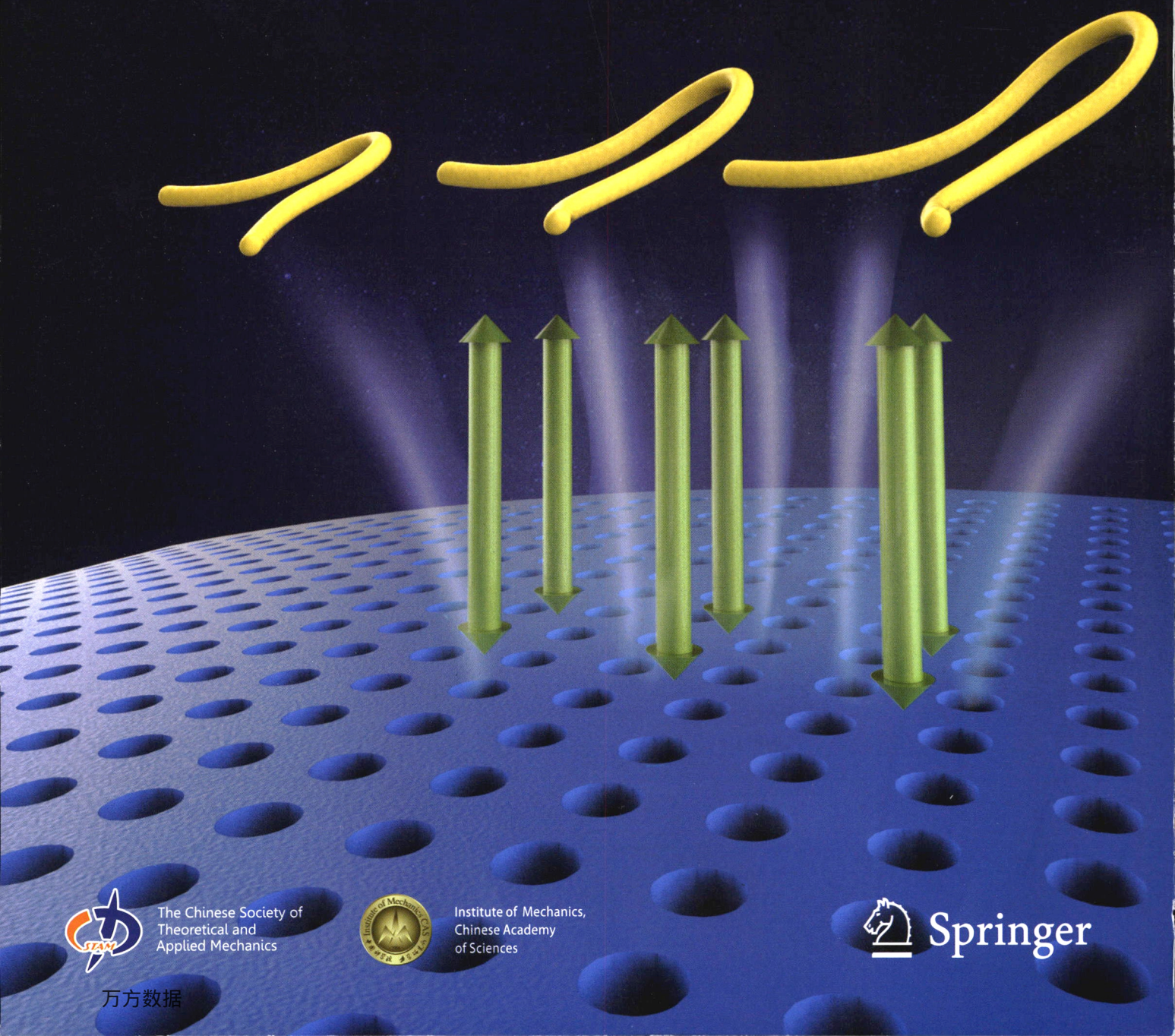
# AMS

## ACTA MECHANICA SINICA

Volume 36 · Number 6 · December 2020

### Characteristics of array of distributed synthetic jets and effect on turbulent boundary layer

Lianshan Lu · Dong Li · Zhenghong Gao · Zhen Cao · Yu Bai · Jie Zheng



The Chinese Society of  
Theoretical and  
Applied Mechanics



Institute of Mechanics,  
Chinese Academy  
of Sciences



Springer

## FLUID MECHANICS

- 1171 Characteristics of array of distributed synthetic jets and effect on turbulent boundary layer  
L. Lu · D. Li · Z. Gao · Z. Cao · Y. Bai · J. Zheng
- 1191 Numerical simulation of phosphorus release from resuspended sediment  
P. Cheng · X. Wang · C. Feng
- 1202 Global cavitation patterns and corresponding hydrodynamics of the hydrofoil with leading edge roughness  
Q. Chen · Y. Liu · Q. Wu · Y. Wang · T. Liu · G. Wang
- 1215 Vortical structures and density fluctuations analysis of supersonic forward-facing step controlled by self-sustaining dual synthetic jets  
Q. Liu · Z. Luo · X. Deng · Y. Zhou · L. Wang · P. Cheng
- 1228 Hydrodynamic scaling and wave force estimation of offshore structures  
J. Zhou · L. Chen · X. Wang
- 1238 LES investigation of cavitating flows around a sphere with special emphasis on the cavitation-vortex interactions  
Y. Long · X. Long · B. Ji
- 1258 Passive scalar mixing induced by the formation of compressible vortex rings  
H. Lin · Y. Xiang · H. Xu · H. Liu · B. Zhang

## SOLID MECHANICS

- 1275 Experimental methods for determination of mechanical behaviors of materials at high temperatures via the split Hopkinson bars  
Q.B. Dou · K.R. Wu · T. Suo · C. Zhang · X. Guo · Y.Z. Guo · W.G. Guo · Y.L. Li
- 1294 Similarities in the penetration depth of concrete impacted by rigid projectiles  
C.G. Chai · A.G. Pi · Q.M. Li · F.L. Huang
- 1302 Dynamic experiment and numerical simulation of frozen soil under confining pressure  
W.R. Tang · Z.W. Zhu · T.T. Fu · Z.W. Zhou · Z.H. Shangguan
- 1319 In situ method for stress measurements in film-substrate electrodes during electrochemical processes: key role of softening and stiffening  
H. Xie · Y. Kang · H. Song · J. Guo · Q. Zhang
- 1336 Dynamic thermo-mechanical behaviors of SME TiNi alloys subjected to shock loading  
L. Shen · Y. Liu · M. Hui

## DYNAMICS, VIBRATION, AND CONTROL

- 1350 Study on modal characteristics and vibration reduction of an aircraft rotor-stator brake-induced squeal system  
Q. Yin · X. Wei · H. Nie · J. Deng

<http://ams.estam.org.cn>

[www.springer.com/journal/10409](http://www.springer.com/journal/10409)

Local Post Office Code No. 2-703



**ACTA  
MECHANICA  
SINICA**  
力学学报 (英文版)

ISSN 0567-7718



9 770567 771200

12>

## FLUID MECHANICS

- 1171 Characteristics of array of distributed synthetic jets and effect on turbulent boundary layer  
L. Lu · D. Li · Z. Gao · Z. Cao · Y. Bai · J. Zheng
- 1191 Numerical simulation of phosphorus release from resuspended sediment  
P. Cheng · X. Wang · C. Feng
- 1202 Global cavitation patterns and corresponding hydrodynamics of the hydrofoil with leading edge roughness  
Q. Chen · Y. Liu · Q. Wu · Y. Wang · T. Liu · G. Wang
- 1215 Vortical structures and density fluctuations analysis of supersonic forward-facing step controlled by self-sustaining dual synthetic jets  
Q. Liu · Z. Luo · X. Deng · Y. Zhou · L. Wang · P. Cheng
- 1228 Hydrodynamic scaling and wave force estimation of offshore structures  
J. Zhou · L. Chen · X. Wang
- 1238 LES investigation of cavitating flows around a sphere with special emphasis on the cavitation-vortex interactions  
Y. Long · X. Long · B. Ji
- 1258 Passive scalar mixing induced by the formation of compressible vortex rings  
H. Lin · Y. Xiang · H. Xu · H. Liu · B. Zhang

## SOLID MECHANICS

- 1275 Experimental methods for determination of mechanical behaviors of materials at high temperatures via the split Hopkinson bars  
Q.B. Dou · K.R. Wu · T. Suo · C. Zhang · X. Guo · Y.Z. Guo · W.G. Guo · Y.L. Li
- 1294 Similarities in the penetration depth of concrete impacted by rigid projectiles  
C.G. Chai · A.G. Pi · Q.M. Li · F.L. Huang
- 1302 Dynamic experiment and numerical simulation of frozen soil under confining pressure  
W.R. Tang · Z.W. Zhu · T.T. Fu · Z.W. Zhou · Z.H. Shangguan
- 1319 In situ method for stress measurements in film-substrate electrodes during electrochemical processes: key role of softening and stiffening  
H. Xie · Y. Kang · H. Song · J. Guo · Q. Zhang
- 1336 Dynamic thermo-mechanical behaviors of SME TiNi alloys subjected to shock loading  
L. Shen · Y. Liu · M. Hui

## DYNAMICS, VIBRATION, AND CONTROL

- 1350 Study on modal characteristics and vibration reduction of an aircraft rotor-stator brake-induced squeal system  
Q. Yin · X. Wei · H. Nie · J. Deng

<http://ams.estam.org.cn>

[www.springer.com/journal/10409](http://www.springer.com/journal/10409)

Local Post Office Code No. 2-703



**ACTA  
MECHANICA  
SINICA**  
力学学报 (英文版)

ISSN 0567-7718



9 770567 771200

12>