The Second Asian Conference on Functional Materials and Structures (ACMFMS 2010)

Conference Program

October 22-25, 2010, Nanjing, China

Nanjing University of Aeronautics and Astronautics

Program Overview

Oct. 22, Friday

	Conference Program	Venue
10:00-22:00	Registration	Lobby of Yuyuan Hotel
18:30-20：30	Welcome Reception	1st floor of Yuyuan Hotel

Oct. 23, Saturday

08:30-08:55	Opening Ceremony	Yifu Science Hall
08:55-12:00	Keynote Lectures 1-4	
12:00-	Lunch	Taoliyuan (3rd floor)
14:00-18:00	Sessions	Rooms A-D, Yifu Science Hall

Oct. 24, Sunday

08:00-12:00	Keynote Lectures 5-9	Yifu Science Hall (YSH)
12:00-	Lunch	Taoliyuan (3rd floor)
14:00-18:00	Sessions	Rooms A-D, YSH
18:00-	Banquet	

Oct. 25, Monday

08:00-12:00	Sessions	Rooms A-D, YSH
12:00-13:30	Lunch	Taoliyuan (3rd floor)
13:30-14:00	Closing Ceremony	Room C
14:00-18:30	Conference Tour	Nanjing City
18:30-	Dinner	

Conference Program
Oct. 23, Saturday

Oct. 23, Saturday

08:30-08:55	**Opening Ceremony (Venue: Yifu Science Hall)** **Chairman: Ji Wang**
08:55-12:00	**Keynote Lectures (Venue: Yifu Science Hall)**
08:55-09:35	**Keynote Lecture 1:** Crack-Tip Domain Switching and Crack Propagation of Ferroelectric Single Crystal under Electromechanical Loading Daining Fang (Peking University, China) **Chairman: Ching-Kong Chao**
09:35-10:15	**Keynote Lecture 2:** Elastodynamic Doppler Effects Kazumi Watanabe (Yamagata University, Japan) **Chairman: Zheng Zhong**
10:15-10:40	**Photo & Coffee Break**
10:40-11:20	**Keynote Lecture 3:** The Charge-Free Zone (CFZ) Model for Conductive Cracks in Brittle Dielectric and Piezoelectric Materials Tong-Yi Zhang (Hong Kong University of Science and Technology, China) **Chairman: Sei Ueda**
11:20-12:00	**Keynote Lecture 4:** Active Vibration Control of Smart Plates Using Directional Actuation and Sensing Capability of Piezoelectric Composites S. Kapuria (Indian Institute of Technology Kharagpur, India) **Chairman: Jianxiang Wang**
12:00-	**Lunch**

14:00-18:00	Sessions (Venue: Rooms A-D)			
	Session 1: Mechanics of Functional and Intelligent Materials (I) Room A Chairmen：S. Ishihara & Chung Fang	**Session 2: Mechanics of Functional and Smart Structures (I) Room B** Chairmen：A. Todoroki & J.Q. Zhang	**Session 3: Modeling and Simulation (I) Room C** Chairmen：Y. Uetsuji & M.C. Chen	**Session 4: Film and Coating Room D** Chairmen：M. C. Ray & F.C.Li
14:00-14:25	Natural Honeycomb as a Paradigm for Unconventional Cellular Materials (MS1190) Kai Zhang, Huiling Duan, B. L. Karihaloo, Jianxiang Wang	Frequency Dependence of Magnetoelectric Behavior in Multiferroic Laminated Composites (MS1125) C. P. Zhao, F. Fang, W. Yang	A Microstructure-Based Model for the Constitutive Behavior of SMAs (MS1197) Xianghe Peng	The Radiation Properties of Lead-Free Ferroelectric Thin Film and Its Memory (MS1199) Yichun Zhou
14:25-14:50	A Nonlinear Theory Accounting for Coupled Processes in Nematic Gels (MS1024) Zhen Wu, Zheng Zhong	Modelling of the Spatial Gradient of Local Fiber Content in Composites with Insertion of Through-Thickness Z-Pins (MS1160) Junqian Zhang, Xiaoguang Zhu	On Elastic Interactions between Rectangular Inclusions by a Novel Hybrid-Stress Finite Element Method (MS1021) Mengcheng Chen, Xuecheng Ping	One-Dimensional Generalized Thermoelastic Problems of a Thin Film with Damping (MS1095) Fumihiro Ashida, Sei-Ichiro Sakata, Takashi Fujiki
14:50-15:15	The Strength of Surface Nanocrystalline Materials (MS1057) Shaohua Chen, Jianjun Li	Opto-Mechanical Actuation of Liquid Crystal Polymer Networks (MS1038) Yue You, Binglian Wang, Changwei Xu, Yongzhong Huo	Extended Stress Intensity Factors of a Crack in Three-dimensional Electromagnetothermoelastic Solid (MS1042) T. Y. Qin, L. N. Zhang, X. J. Li, Ch. Zhang	Analysis of Smart Hybrid Composite Reinforced with Carbon Nanotubes-Coated Piezoelectric Fibers (MS1130) M. C. Ray
15:15-15:30	Coffee Break			

15:30-15:45	Interfacial Slippage of Inorganic Electronic Materials on Plastic Substrates (MS1085) Longchao Dai, Xue Feng Bin Liu, Daining Fang	Damage Monitoring of Thick CFRP Plate Using Electrical Resistance Change With Dent (MS1168) Akira Todoroki, Yasuhiro Shimazu, Yoshihiro Mizutani, Ryosuke Matsuzaki	Crystal Morphology Analysis of Piezoelectric Ceramics Using Electron Backscatter Diffraction and Its Application to Multiscale Finite Element Analysis (MS1111) Y. Uetsuji, S. Kimura, H. Kuramae, K. Tsuchiya, Marc Kamlah	Buckling of a Piezoelectric Thin Film Bonded to a Compliant Substrate (MS1165) Zhidong Zhou, Ying Zhang
15:45-16:00	On the Inclusion Sensitive Fatigue Lives of the Extruded Magnesium Alloy AZ61 (MS1067) S. Ishihara, M. R. Qi, T. Namito, S. Yoshifuji, T. Goshima, H. Shibata	Transient Displacement and Stress Fields in an Electrostrictive Hollow Cylinder under the Electrical Shock (MS1050) Quan Jiang, Hua Bao	Simulations of Constrained Domain Switching in Polycrystalline Ferroelectrics Using an Optimization-Based “Phase Field” Model (MS1014) F.X. Li, X.L Zhou, A.K. Soh	Fabrication of $(K_{0.5}Na_{0.5})NbO_3$ Lead-Free Piezoelectric Film (MS1120) Kongjun Zhu, Jinhao Qiu,Yang Cao, Hongjuan Zheng. Hongli Ji
16:00-16:15	Research on Antiplane Singular Electroelastic Fields of Piezoelectric Inclusion Corner (MS1148) Xuecheng Ping, Mengcheng Chen, Nao-Aki Noda	Tuning the Phononic Band Structures of Two-Dimensional Periodic Electroactive Composites (MS1061) X. L. Zhou, C. Q. Chen	Giant Anhysteretic Response in Morphotropic Phase Boundary Ferroelectrics: The Role of Polar Anisotropy (MS1023) Yong Ni	Phase Field Study on the Electromechanical Responses of a Ferroelectric Polymer Thin Film (MS1019) Tao Li, Jinxiong Zhou, Changqing Chen
16:15-16:30	A Thermodynamic Analysis on the Solid-Fluid Phase Transition of a Dry Granular Material (MS1175) Chung Fang	Structural Theories of Multiferroic Plates and Shells (MS1127) C.L. Zhang, W.Q. Chen	Stress Induced Polarization Switching and Coupled Hysteretic Dynamics in Ferroelectric Materials (MS1034) Linxiang Wang, Roderick Melnik	The Role of Coated Aluminum (Al) Film in the Improvement of Mechanical Behaviors of Composites (MS1123) Guoning Liu, Hezheng Wang, Jingru Dong, Minghao Zhao, Yunhai Du

16:30-16:45	Infinite Solid with Sliding Ellipsoidal Inhomogeneity under Shearing Stress at Infinity (MS1075) Yingtao Zhao, Yang Gao, Minzhong Wang	Flexural Response of Doubly Curved Laminated Composite Shells (MS1188) Ambuj Sharma, A.K. Upadhyay, K.K. Shukla	A Micromechanical Approach to Estimate the Electromechanical Behavior of Celluar Ferroelectrets (MS1053) Yongping Wan, Longtao Xie, Zheng Zhong	Thermo-Mechanical Behavior of a Viscoelastic FGMs Coating Containing an Interface Crack(MS1105) Zhanqi Cheng ,Danying Gao
16:45-17:00	Physical Mechanism of Negative Effective Material Parameters For 2D Elastic Metamaterials (MS1040) Xiaoming Zhou, Gengkai Hu	Experimental Thermo-Stress Analysis for a Bending Control of Composite Beams Embedded with SMA Wire Actuators (MS1185) Gang Zhou, Peter Lloyd	Multiscale Finite Element Modeling for Polycrytalline Ferroelectric Materials (MS1110) Yuuki Taniguchi, Yasutomo Uetsuji, Hiroyuki Kuramae, Kazuyoshi Tsuchiya, Marc Kamlah	Friction and Wear Properties of CrN Coatings Sliding Against SiC Balls in Deionized Water (MS1069) Yanxia Li, Qianzhi Wang, Heng Su, Fei Zhou
17:00-17:15	Unsupervised Detection of Impact Damage in Graphite/Polymer Composites Using Statistical Analysis of Change in Temperature Characteristic of Resistance (MS1173) Y. Suzuki, A. Todoroki, Y. Mizutani, R. Matsuzaki	Optimum Design of Fiber Reinforced Composite Leaf Springs (MS1118) Abdelmoniem M. Amin	Phase Field Model of Polarization Switching in a Finite Ferroelectric Body with Free Surfaces (MS1187) Y.C. Song, J.Q. Zhang	Photoluminescence Properties of Al and Er Co-Doped ZnO Thin Films Deposited by Sol–Gel Method (MS1070) Zheng Wang, Xiaohua Huang, Meiling Wang, Fei Zhou, Kongjun Zhu, Jinhao Qiu
17:15-17:30	Development of Functionally-Graded Syntactic Foams and Evaluation of Their Mechanical Properties (MS1177) Masahiro Higuchi, Tadaharu Adachi Taishi Yoshioka, Yutaka Kobayashi	Transverse Surface Waves in Piezoelectric Coupled Solid Media with Hard Metal Interlayer (MS1103) Z.H. Qian, F. Jin, S. Hirose	2D and 3D Green's Functions for Pyroelectric Media (MS1161) Pengfei Hou, Haoran Chen Zhiwei Luo	Device Modeling of Ferroelectric Thin Film Field-Effect Transistor Memories (MS1002) Yichun Zhou, Feng Yang
18：00-	Reception			

Conference Program
Oct. 24, Sunday

Oct. 24, Sunday

08:00-11:40	**Keynote Lectures (Venue: Yifu Science Hall)**
08:00-08:40	**Keynote Lecture 5:** Tensile and Compressive Behavior of Multi-walled Carbon Nanotube/Polymer Composites Yasuhide Shindo (Tohoku University, Japan) **Chairman: Jinhao Qiu**
08:40-09:20	**Keynote Lecture 6:** A Hamiltonian State Space Approach for 3D Problems of Anisotropic Elasticity and Piezoelectricity Jiann-Quo Tarn (National Cheng Kung University, China) **Chairman: Yongzhong Huo**
09:20-10:00	**Keynote Lecture 7:** Multi-Physics Analysis of Nano-Components by First-Principle Simulation Takayuki Kitamura (Kyoto University, Japan) **Chairman: Changqing Chen**
10:00-10:20	**Coffee Break**
10:20-11:00	**Keynote Lecture 8:** On the Helmholtz Free Energy Density in Phase Field Theory of Ferroelectric Materials Marc Kamlah (Karlsruhe Institute of Technology) **Chairman: Linhui He**
11:00-11:40	**Keynote Lecture 9:** Some Theoretical Problems in Electromagnetic Media Zhenbang Kuang (Shanghai Jiaotong University) **Chairman: Yichun Zhou**

12:00-	**Lunch**			
14:00-18:00	**Sessions (Venue: Rooms A-D)**			
	Session 5: Nano-Materials/Structures/ Mechanics Room A Chairmen： C.W. Lim & Y. Su	**Session 6: FGM and Thermoelasticity Room B** Chairmen：Y. Ootao & Licheng Guo	**Session 7: Cracks and Defects Room C** Chairmen：N.A. Noda & M.H. Zhao	**Session 8: Wave and Vibration Room D** Chairmen： Y. Nath & F. Jin
14:00-14:25	Intermolecular Adhesion between a Nanoscale Particle and a Soft Elastic Substrate (MS1196) Linhui He	Second Sound in a Cracked Layer based on Lord-Shulman Theory Arash Zamani, Richard B. Hetnarski, and M. Reza Eslami	Antiplane Interaction between a Crack Embedded in an Infinite Matrix and an Elliptically Cylindrical Layered Media (MS1027) C. K. Chao, A. Wikarta	Particle Trapping by Travelling Wave Ultrasound with Spatial Gradient Junhui Hu, Yanyan Liu, Chunshun Zhao
14:25-14:50	Modelling And Analysis of Functionally Graded Nanotube-Reinforced Composite Plates (MS1132) H.S. Shen	Two Coplanar Cracks in a Functionally Graded Piezoelectric Material Strip under Mechanical and Transient Thermal Loadings (MS1121) Sei Ueda	Several Central Interface Crack Solution under Arbitrary Material Combination (MS1157) Nao-Aki Noda, Yu Zhang, Xin Lan, Ken-Taro Takaishi	Bechmann's Number of Electroded Quartz Crystal Plates in the Thickness-shear Vibration Mode (MS1076) Ji Wang, Yumei Chen, Jianke Du, Dejin Huang
14:50-15:15	On Nonlocal Nanomaterials which Have Lower Stress-Strain Rate but Stiffer (MS1124) C.W. Lim	3-D Analysis of The Elasticity Problem in FGM Solids (MS1122) Yuriy Tokovyy, Chiencing Ma	Numerical Analysis Method of Nonlinear Fracture in 2D Piezoelectric Media (MS1194) Minghao Zhao	Large Amplitude Frequency Response of Composite Curved Beams (MS1137) B.P. Patel, Y. Nath, S.M. Ibrahim
15:15-15:30	**Coffee Break**			

15:30-15:45	Mechanics in Nature's Design of Hierarchical Superhydrophobic Surfaces of Water Strider for Low Adhesion and Low Energy Dissipation (MS1149) Baohua Ji	Transient Thermal Stress Analysis of a Functionally Graded Magneto-electro-thermoelastic Hollow cylinder due to Uniform Surface Heating (MS1094) Y. Ootao, M. Ishihara	The Fracture Behavior of Two Non-asymmetric Collinear Cracks Emanating From an Elliptical Hole in a Piezoelectric Material (MS1015) J.H. Guo, Z.X. Lu	Propagation of Thickness-Twist Waves in an Inhomogeneous Piezoelectric Plate with an Imperfect Bonded Interface (MS1074) Peng Li, Feng Jin, Xiaoshan Cao
15:45-16:00	On the Dynamics of Vertex-Structure in Ferroelectric Nanoparticles (MS1054) Yu Su	A Stochastic Micromechanical Model for Effective Properties of Functionally Graded Materials (MS1058) Licheng Guo, Zhihai Wang, Jicai Feng	Transient Thermoelectromechanical Response of a Piezoelectric Strip with Two Parallel Cracks of Different Lengths (MS1030) S. Ueda, Y. Ikeda, A. Ishii	On High-Frequency Vibration Suppression of Nanometer Precision Motion Stage through Biasing Fields (MS1046) Hongping Hu, Xingye Shan, Yuantai Hu, Xuedong Chen
16:00-16:15	SH-SAW Propagation in Layered Piezomagnetic/Piezoelectric Structures Loaded with Viscous Liquid (MS1008) Jianke Du, Xiaoyu Cheng, Ji Wang, Kai Xian	FEM Buckling Analysis of Functionally Graded Toroidal Shells (MS1052) P. Khazaeinejad, M.M. Najafizadeh, X.H. Wang, M. Tanbakuei Kashani	Extended Displacement Discontinuity Green's Functions for Vertical Crack in Three-dimensional Transversely Isotropic piezoelectric Media (MS1114) CuiYing Fan, RongLi Zhang, Minghao Zhao	Guided Wave-Based Debonding Detection for CFRP Structures Using Fiber Optic Doppler Sensors (MS1060) Fucai Li, Guang Meng, Kazuro Kageyama, Hideaki Murayama
16:15-16:30	Elastica Type Buckling Analysis of Micro-/Nano-Rods using Nonlocal Elasticity Theory (MS1056) Sipeng Xu	Nonlinear Dynamic Analysis of Functionally Graded Conoids with Different Types of Geometric Imperfections (MS1020) S. Pradyumna, N. Nanda, J.N. Bandypadhyay	Interaction between an Edge Dislocation and a Circular Inclusion with Interface Slip and Diffusion (MS1184) X. Wang, Ernie Pan, Minghao Zhao	Nonlinear Vibration of Edged Cracked FGM Beams Using DQ Method (MS1037) Liaoliang Ke, Yuesheng Wang

16:30-16:45	Toughening Mechanisms Dominated by Nanoscale Twin Boundaries in Nanostructured Metals (MS1100) Shaoxing Qu, Haofei Zhou, Wei Yang	Thermoelectroelastic Response of a Functionally Graded Piezoelectric Strip with Two Parallel Axisymmetric Cracks (MS1029) S. Ueda, T. Iogawa	Thermoelectromechanical Interaction among Multi Parallel Cracks in a Piezoelectric Material (MS1031) S. Ueda, Y. Uemura	Torsional Wave Propagation in Nanotubes with Small Scale Effects (MS1150) Yize Wang, Fengming Li, Kikuo Kishimoto
16:45-17:00	Crack Growth Analysis of the Interface Functionalized with Nanoimprint Lithography (MS1166) T. Suzuki, R. Matsuzaki, A. Todoroki, Y. Mizutani	Investigation on the Thermal Fracture Behaviors of Nonhomogeneous Materials with Interaction Energy Integral Method (MS1044) Fengnan Guo, Licheng Guo, Hongjun Yu, Jicai Feng	Thermal Shock Stress Intensity Factors for a Semi-elliptical Surface Crack in Brittle Ceramics (MS1051) Dongmei Chang, Baolin Wang, Jiecai Han	Transient Response and Wave Propagation in Finite Mindlin Plate (MS1151) Chunchuan Liu, Fengming Li, Wenhu Huang
17:00-17:15	Thermomechanical Modeling of Polymer Nanocomposites by the Asymptotic Homogenization Method (MS1001) Yasser M. Shabana, Gongtao Wang	Two-Dimensional Thermoelastic Sliding Frictional Contact of Functionally Graded Materials (MS1043) Jing Liu, Yuesheng Wang, Liaoliang Ke	Several Edge Interface Crack Solution under Arbitrary Material Combination (MS1158) Xin Lan, Nao-Aki Noda, Yu Zhang, Kengo Mithinaka	Rayleigh Surface Waves in a Functionally Graded Material (FGM) Infinite Half Space (MS1089) Xiaoshan Cao, Feng Jin
17:15-17:30	Long Range Interaction of Rigid Spheres Contacting with Elastomer (MS1164) Shunping Yan, Linghui He	Numerical Non-Fourier Heat Conduction of Layered Media (MS1036) Jin'e Li, Baolin Wang	Interaction between an Edge Dislocation and a Circular Inclusion with Interface Slip and Diffusion (MS1184) X. Wang, Ernie Pan, Minghao Zhao	Analytical Solution for SH Wave Propagating Through a Graded Plate with Metamaterial (MS1062) J.F. Zhao, Z. Zhong, Y.D. Pan

17:30-17:45	Effect of Carbon Nanotubes and Nano-Hydroxyapatite Hybrid Ratio on Ni-Co Alloy Biological Coatings by Electrical Brush-plating (MS1041) Xia Zhou, Feng Qian, Chengwei Wu, Zhenkun Lei	Nonlinear Dynamic Analysis of Functionally Graded Conoids with Different Types of Geometric Imperfections (MS1020) S. Pradyumna, N. Nanda, J.N. Bandypadhyay	Blast Resistance of Lightweight Metallic Sandwich Plates with Sinusoidal, I-core and Triangular Cores (MS1049) Qinghua QIN, Jianxun ZHANG T. J. WANG	Waves Transmission through a Micro Gap Considering Frictional Contact (MS1080) Xiaoyun Chen, Guilan Yu
17:45-18:00	A New Micromechanical Method Estimating for the Plastic Deformation of Nanoporous Materials with Surface Effect (MS1093) W. X. Zhang, T. J. Wang, X. Chen	Vibration Analysis for Bilayer Beams Excited by Varying Temperature (MS1086) Xinchun Shang, Bowen Chen	Study on Centering Process of Periodic Symmetric Struts Support (MS1174) Jizhe Ha, Wenlei Sun Weibin Liu, Lie Yu	Impact Characteristics of Reinforced Concrete (MS1004) Haifeng Liu, Jianguo Ning
18：00-	**Banquet**			

Conference Program
Oct. 25, Monday

Oct. 25, Monday

08:00-12:00	**Sessions (Venue: Rooms A-D)**			
	Session 9: Mechanics of Functional and Intelligent Materials (II) Room A Chairman: H.G. Beom & S.I. Sakata	**Session 10: Mechanics of Functional and Smart Structures (II) Room B** Chairman: S.H. Chen & Masahiro Arai	**Session 11: Modeling and Simulation (II) Room C** Chairman: Atsushi Sakuma & Jie Wang	**Session 12: Posters* Room D**
08:00-08:25	Failure Behavior of a Piezoelectric Bimaterial with an Interfacial Electrode (MS1176) S. Lin, H.G. Beom	Application of Piezoelectric Sensors and Actuators in Smart Structures Jinhao Qiu, Hongli Ji, Jian Liu	Multiscale Study on the Tensile Fracture of TBC (MS1198) Shengping Shen	**Posters (I)** Chairmen: G.N.Liu & B.S.Zhao [P1] J. H. Wang, C. Q. Chen, Indentattion Analysis of Piezoelectric Films Penetrating by a Cylindrical Punch Considering the Effects of Film Thickness and Substrate Elasticity MS(1087) [P2] Shouetsu Itou, Stress Intensity Factors for an Interface Crack between a Nonhomogeneous Bonding Layer and One of the Two Dissimilar Elastic Half-planes (MS1017) [P3] M. Tomozawa, S. Sakata, F. Ashida, Design of Electrodes in a Two-Layered Piezoelectric Composite Disk for Control of Thermal Stress (MS1098) [P4] Yudai Takagi, Takuya Morimoto, Hiroshi Iizuka, Tensile Behavior of Torque-Balanced Strand under Tensile Loading (MS1104) [P5] E.A. Gerasimenko, A.V. Zavertan, Computations in Dynamics of Incompressible Nonlinear Elastic Medium by Using near-Front Ray
08:25-08:40	Stochastic Homogenization Analysis of a Porous Material Manufactured by a Rapid Prototyping (MS1047) Sei-ichiro Sakata, Fumihiro Ashida	Thermo-Mechanical Stresses in FGM Plates and Shallow Shells(MS1183) M. K. Singha	Phase Field Simulation of Ferroelectric Domain Around a Crack with Different Electrical Boundary Conditions (MS1009) Jie Wang	
08:40-08:55	Rolling Contact Between a Rubber Ring and Rigid Cylinders: Euler's Belt Theory Revisited (MS1064) Takuya Morimoto, Hiroshi Iizuka	Measurement of Rolling Moment, Lift and Drag on a Flapped Delta Wing in A Hypersonic Shock Tunnel Using a Force Balance (MS1084) Viren Menezes, Sharad Trivedi, Abhinav Kumar	Evaluation of Elastic Behaviors of Low-density Porous Materials by Tensile, Compression and Shear Tests(MS1170) Atsushi Sakuma, Shuhei Tanamachi, Shigeru Nagaki	

*** Note: For the poster session, a display board with the size of 90 cm×120 cm is provided for each poster, and the procedure is: each presenter has 10 minutes to paste his/her article, and then gets together to introduce his/her work for 3 minutes, respectively. Finally, each presenter stands by his/her board for about 20 minutes for possible discussions. The poster will stay on the board during the conference and can be removed in the last day of the conference.**

08:55-09:10	Experimental Study on The Damage Evolution of Polymer Bonded Explosives Material Using Digital Speckle Correlation Method (MS1078) Xian Wang, Shaopeng Ma, Zhongbin Zhou, Pengwan Chen	A Study of High Strength CFRP Bolted Joints with Failure Monitoring Cone Washers (MS1169) T. Katsumata, Y. Mizutani, A. Todoroki, R. Matsuzaki	Dynamic Modeling and Simulation to Precision Positioning Magnetostrictive Inchworm Linear Motor (MS1112) Wenbing Xu, Bintang Yang, Guang Meng, Yangming Lu	Expansions of Solutions (MS1162) [P6] K. Takeo, H. Nagino, M. Higuchi, T. Adachi, Three-Dimensional Stress Analysis of Functionally Graded Rectangular Plates under Transverse Loads (MS1163) [P7] Jiangong Yu, Generalized Thermoelastic Waves in Orthotropic Plates (MS1055) [P8] Baosheng Zhao, Yang Gao, Yingtao Zhao, Dechen Zhang, The Refined Analysis of Axi-symmetric Circular Cylinder in the Axial Magnetic Field Without ad hoc Assumption (MS1013) [P9] J. Lu, Y. Xiang, Q. Ni, Dynamic Characteristics Analysis of Active Constrained Layer Damping Plate with Various Boundary Conditions (MS1039) [P10] Z.H. Tan, H.H. Luo, W. Zhang, The Ballistic Performance of Sandwiched Ceramic Subjected to The Impact of Tungsten Projectile (MS1090) [P11] T. Shiga, F. Ashida, S. Sakata, Inverse Thermoelastic Problem of a Piezoceramic Composite Hollow Cylinder (MS1097) [P12] Yepeng Xu, Jianshi Fang, Ding Zhou, Three-Dimensional Analysis of Transversely Isotropic Simply-Supported Piezoelectric Rectangular Plates with Variable Thickness (MS1007) [P13] Xiangcheng Chu, Qing Yang, Longtu Li, A New Type of Screw-driven Piezoelectric Motor for Camera Focus (MS1178) [P14] Bin Li, Tienchong Chang, Anisotropic Elastic Properties of Single-Walled Carbon Nanotubes (MS1179)
09:10-09:25	Measurement of Dynamic Fracture Toughness and Failure Behavior for Explosive Mock Material (MS1026) Pengwan Chen, Zhongbin Zhou, Shaopeng Ma, Qinwei Ma, Fenglei Huang	Acoustic Emission from Impact-Damaged CFRP Structures under Stress Loading (MS1167) Sota Sugimoto, Yoshihiro Mizutani, Akira Todoroki, Ryosuke Matsuzaki	Vector Potential Finite Element Procedure for Three-Dimensional Piezoelectric and Magnetostrictive Problems (MS1159) Gakuji Nagai	
09:25-09:40	A Simple Model to Explain the Nonlinear Mechanical Behavior of Polymer Bonded Explosives Specimen under Uniaixal Compression (MS1077) Shaopeng Ma, Yingtao Zhao, Xian Wang, Pengwan Chen	Analysis of Separation Conditions for Shrink Fitting System Used for Sleeve of Ceramics Conveying Rollers (MS1155) Wenbin Li , Nao-Aki Noda, Hiromasa Sakai , Yasushi Takase	Two-Dimensional Boundary Element Elasticity Analyses of Bonded Dissimilar Materials Paying Attention to Sub-Element (MS1172) Toshio Furukawa	
09:40-09:55	Dispersion of Waves in Functionally Graded Piezoelectric Plate via Recursive Reverberation-Ray Matrix Analysis (MS1126) Jun Zhu, Guiru Ye, Yiqiang Xiang, Weiqiu Chen	Continuum Damage Mechanics Modeling of Composite Laminated Plates (MS1016) A. K. Gupta, B. P. Patel, Y. Nath	Fracture of Amorphous Polymer by a Multi-Scale Method (MS1128) Gangfeng Wang, Jianjun Bian	
09:55-10:10	**Coffee Break**			

10:10-10:25	Surface Waves in (1-x)Pb($Mg_{1/3}Nb_{2/3}$)O_3-x$PbTiO_3$ Piezoelectric Layered Structures Loaded with Viscous Liquid (MS1186) Guoquan Nie, Jinxi Liu, Huijing He	Mixed Modes Interlaminar Fracture Toughness of CFRP Laminates Toughened With CNF Interlayer (MS1106) Masahiro Arai, Tatsuya Sasaki, Satoshi Hirota, Hiroaki Ito, Ning Hu, Marino Quaresimin	Size Effects in Electromechanical Coupling Problems (MS1134) Ying Xu, Shengping Shen	**Posters (II)** Chairmen: X.F. Li & L.Q. Yao [P15] X.F. Li, Free Vibration of Axially Graded Beam-Columns (MS1022) [P16] S. YU, W.M. FENG, Experimental Research on Ductile Fracture Criterion in Metal Forming (MS1006) [P17] X.J. Ma, F.S. Liu, M.J. Zhang, X.J. Peng, Y.H. Li, The Effective Shear Viscosity of Al under Shock Compression (MS1092) [P18] D.X. Zhao, C.R. Liao, J. Luo, G. Liu, alytical Study on Damping Performances of Magnetorheological Grease Damper Based on Disk Squeeze Model and Experimental Test (MS1032 [P19] L.Y. Yuan, Q. Ni, Y. Xiang , Optimization of Circular Cylindrical Shell Partially Treated with Ring Active Constrained Layer Damping (MS1091) [P20] L. Cheng, S.J. Zhang, Stiffness Analysis of Different Structures Using Elastic Memory Composite (MS1108) [P21] Y. Cheng, Y. Yang, Y.P. Wang, H.Q. Meng, W.J. Qian, Effects Of Mno2 On The Sintering Behavior And Piezoelectric Properties of Pb(Ni1/3Nb2/3)O3-PbZrO3-PbTiO3 Ceramics (MS1065) [P22] H.Q. Meng, Y. Yang, Y.P. Wang, Y. Cheng, Sintering Behavior of Rare-Earth Element Yb Modified Lead-Free [(K0.48Na0.535)0.94Li0.06]NbO3
10:25-10:40	Analysis of Lamb Wave Interaction with Delamination in CF/EP Composite Beams (MS1059) Haikuo Peng, Fucai Li, Lin Yeb, Guang Meng	Efficient Optimum Design of Electrode Arrangements in a Multilayer Piezo-Composite Disk for Control of Thermal Stress(MS1096) Ahmed Elsawaf, Fumihiro Ashida, Sei-Ichiro Sakata	Analysis for the Effect of Shape of Crimped Portion upon the Sealing Performance of Hydraulic Brake Hose by Three-Dimensional FEM (MS1156) Kento Ota, Kim Bongkee, Nao-Aki Noda	
10:40-10:55	Theory on Mechanics of Complex Surfaces and Its Applications (MS1180) Yan Wang , Huiling Duan	Three-Dimensional Bending Analysis of Rectangular Plates on Elastic Foundation (MS1181) H. Nagino, K. Takeo, T. Adachi, M. Higuchi	Experimental Study on Macroscopic Size Effect of Low-Density Porous Materials in Dynamic Compression Process (MS1171) Chenzhuo Diao, Atsushi Sakuma, Masato Watanabe, Mitsuo Kawashima, Shigeru Nagaki	
10:55-11:10	The Enhanced Multiferroic Properties of BiFeO3-REMnO3 and Bi1-xRExFeO3 Systems (MS1072) Bing Wang, Yiping Wang Ying Yang, Linlin Liu	Dielectric Permittivity and Loss of SiO2 Coated CaCuTi4O12 Core-Shell Structure (MS1083) Linlin Liu, Yiping Wang Ying Yang, Bing Wang	The Effect of Bi2O3 on the Sintering Behavior and High Temperature Properties of BiScO3-PbTiO3 Piezoelectric Ceramics (MS1182) Wangjie Qian, Ying Yang Yiping Wang, Yu Cheng	

11:10-11:25	Dynamic Viscoelasticity of Polycarbonate (PC) Polymer under Dynamic-Static Load (MS1028) Shuiping Yin	The Propagation of Lamb Waves in a One-Dimensional Phononic Crystal Plates Bordered with Symmetric Uniform Layers (MS1088) Jiujiu Chen, Xu Han	Investigation on the Crack-Tip Deformation of Mixed-Mode Fracture of ABS Resin (MS1033) Huimin Li, Qinzhi Fang	Piezoelectric Ceramics (MS1073) [P23] D.J. Chen, S.J Zheng, Optimal Wireless Vibration Control Using Photostrictive Actuators and Genetic Algorithm (MS1081) [P24] P.H. Chen, Y. Wang, W.Q. Huang, Design of a Piezoelectric Actuator Based on Piezoelectric Stacks (MS1082) [P25] J.Z. Du, J.H. Qiu, K.J. Zhu, H.L. Ji, J. Luo, Electromechanical Characterization and Modeling Analysis of Piezoelectric Ceramic Fibers With Pt Core (MS1113) [P26] S.J Yao, J.H. Qiu, H.L. Ji, K.J. Zhu, Deicing Method Based on the Piezoelectric Actuators (MS1115) [P27] Z.X. Guo, J.H. Zhang, Y. Huang, W.Q. Huang, Q.X. Xia, Theory and Experiment on The Soft Texture and Conning Shaped Single Valve Piezoelectric Pump with Different Interior and Exterior Taper (MS1154) [P28] O. P. Niraula, Solution of Wave Propagation in Magneto-electro-elastic Plate (MS1153) [P29] Linquan Yao, Jiping Shen, Dynamic Analysis Of Nonlinear Piezoelectric Laminated Axisymmetric Circular Plates(MS1133)
11:25-11:40	Effect of Grain Refinement on the Mechanical Properties of Cu-Al-Be-B Shape Memory Alloy (MS1109) Ping Zhang, Aibin Ma Sheng Lu, Pinghua Lin Jinghua Jiang, Donghui Yang Chenglin Chu, Hu Ma	Reliability-Based Robust Design Optimization under Random Uncertainty and Info-Gap Uncertainty for Composite Pressure Vessels (MS1102) Yuanfu Tang, Jianqiao Chen, Junhong Wei	Research on the Efficient Method for Calculating the Rotary Magnetic Torque of Permanent Magnet under Electromagnetic Field Excitation (MS1068) Yangming Lu, Bintang Yang	
11:40-11:55	An Intelligent Variable Stiffness and Damping Absorber Based on Magneto-rheological Materials (MS1116) Xiaomin Dong, Miao Yu, Zhi Guan		Numerical Solution of Incompressible Navier-Stokes Equations by local Differential Quadrature-Lagrange Interpolation Method (MS1152) Dan Sun, Jiangang Yang	
12:00-13:30	**Lunch**			
13:30-14:00	**Closing Ceremony (Venue: Room C)** **Chairman: W.Q. Chen**			
14:00-18:30	**Conference Tour**			
18:30-	**Dinner**			