

## Day 2: Tuesday, 25 November

### Room 201-393

9:00

**Keynote: *On the elastic vibrations of railway vehicle carbody - Measurement, Modeling, and Reduction measures.***  
**Prof. Takahiro Tomioka (Meijo University, Japan)**

### Room 1 (201-311)

#### A-1:Vibration And Acoustical Analysis 4

Chair: Yuki Amano (Railway Technical Research Institute)

10:30	83	Yang Liu, Fanhao Guo and Jingtao Du	Experimental approach to determine onset frequency of standing-wave thermoacoustic engines with general impedance boundaries
10:50	89	Byeongkeun Choi, Jeongjun Lee, Donghee Park and Jaegwang Yoon	Development of Full Spectrum Parameters for Rotating Machinery Diagnostics
11:10	107	Brian Mace, Michael Kingan and Yi Yang	Leaky waves and radiation damping: a wave and finite element approach
11:30	3	Yoshihiro Narita	Finite Element Study for Vibration of Polar-orthotropic Shallow Spherical Shells
11:50	156	Keisuke Yamada and Koji Takao	Extraction of traveling and evanescent waves from bending vibrations using modal analysis without Gibbs phenomenon

#### A-1:Vibration And Acoustical Analysis 5

Chair: Wei Wang (The University of Tokyo, Institute of Industrial Science)

13:10	92	Youngjin Park, Jaehyun Lim and No-Cheol Park	TPA-Based Structural Design and Haptic Rendering for Automotive Displays
13:30	98	Yuki Amano, Shigeyuki Kobayashi, Yoshitaka Yamashita and Hiroshi Yabuno	Analysis of band gap properties and their effects on friction-induced vibrations in catenary-pantograph systems
13:50	20	Chen Zhang, Yongpeng Gu and Xiaotian Li	An investigation of the High-frequency Isolation Performance of Quasi-Zero-Stiffness Vibration Isolators
14:10	146	Seung-Hee Kim and Kyoung-Kyu Choi	Evaluation of Modal Superposition Strategy for Heavy-Impact Noise Prediction in Concrete Slabs with Varying Residential Floor Plans

#### A-10: Multibody Dynamics 1

Chair: Keisuke Yamada (Kansai university)

15:20	82	Wei Wang, Hiroshi Mouri and Kimihiko Nakano	Dual Points Pure Pursuit with Center of Percussion for Vehicle Kino-dynamic Path Tracking
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15:40	112	Johnson Koay, Tokinobu Inuma, Yoshihiro Kai, Yuma Takenaka and Kenichi Sugawara	Development of a New Non-Powered Arm Support Suit with Drum Type Mechanical Brakes Considering Horizontal Shoulder Motions
16:00	116	Yutaro Nishimoto, Shoichiro Takehara and Yoshiaki Terumichi	Effect of combination of support stiffness and tread gradient on stability of bogie hunting motion
16:20	140	Kangping Xiao, Wenbo Ni, Xuemei Wang, Yuxiang Cai and Yixin Liu	Analysis of pressure wave transmission characteristics of heavy haul train pipe based on neural network

## Room 2 (201-326)

### A-7: Seismic, Isolation, And Damping 1

Chair: Satoshi Ueno (Ritsumeikan University)

10:30	49	Hiroshi Yamamoto, Terumasa Narukawa and Hisami Takeishi	Development of a Hydrostatic Air Suspension
10:50	58	Ayumi Kondo, Osamu Furuya, Hirokazu Hora and Koki Yamamoto	Study on a New Seismic Design Method for Foundation Joints of High Aspect Ratio Cylindrical Tank
11:10	60	Shunsuke Endo and Osamu Furuya	Study on the Influence of Nonlinear Elements in Mechanical Structures under Impact
11:30	160	Yushi Yamamoto and Takumi Sasaki	Study on two-degree-of-freedom passive vibration isolation system using post-buckled $\Gamma$ -shape beam elements
11:50	152	Xiaojiao Fu, Zhangjun Liu and Sixiang Han	The full paper of Time-domain dimension-reduction representation for stochastic ground motion via double-filtered white noise

### A-7: Seismic, Isolation, And Damping 2

Chair: Yasushi Ido (Nagoya Institute of Technology)

13:10	66	Aoi Fukuzaki and Osamu Furuya	Study on advanced functional maintenance of high-pressure gas facilities using vibration control technique
13:30	75	Taiki Sayo, Keiske Minagawa, Mizuki Seki, Tetsuya Yamamoto, Kazutaka Takahashi, Tomoyuki Kurata and Yuta Takahashi	Study on vibration control performance of steel dampers for sedimentation device with inclined plates
13:50	80	Haruka Matsuya and Osamu Furuya	Study on vibration Control for Ground-Mounted Solar Panels
14:10	99	Takumi Sasaki, Yuta Inotani and Mai Akiyoshi	Study on a passive isolator using an auxetic structure sandwiched between two thin plates
14:30	119	Zixin Liu and Zhangjun Liu	Dimension-reduction Simulation of Stochastic Ground Motions Applying Frequency-domain Analysis and Engineering Applications

### A-7: Seismic, Isolation, And Damping 3

Chair: Takumi Sasaki (University of Kitakyushu)

15:20	61	Kosei Oba and Osamu Furuya	Study on seismic isolation system of elevators for evacuation during disasters
15:40	62	Ryo Fujiura and Osamu Furuya	Study on Advancement for Response Control Device using Additional Vibration System
16:00	42	Koki Hasegawa, Chao Zhang, Yuhiro Iwamoto and Yasushi Ido	Vibration Control Performance of Piston-mounted Impact Damper Utilizing an Elastomer Particle Assemblage
16:20	71	Satoshi Ueno and Chengyan Zhao	Vibration control of a structure by using two magnetically levitated floaters

### Room 3 (201-334)

#### A-8: Dynamics Modelling and Analysis 4

Chair: Takuya Yoshimura (Tokyo Metropolitan University)

10:30	103	Zihan Zhao and Hiroshi Yabuno	Identification of Viscoelastic Parameters of Rubber Using Self-Excited Oscillation
10:50	110	Yusuke Taniuchi, Yohei Hoshino, Yoshiki Kawano and Takao Kameda	Proposal of Novel Dynamics Model for Curling Stone and Analysis of Dynamic Behavior
11:10	113	Muhammad Faizan Baqir, Vladimir Yotov, Danyyal Shakaib Hussain, Guglielmo Aglietti and Jin-Gyun Kim	Data-driven dynamic substructuring for spacecraft applications
11:30	130	Akinori Tomoda and Takumi Furukawa	Vibration Analysis of a High Damping Manganese-Based Alloy Plate using Molecular Dynamics Simulations
11:50	69	Byeong-Keun Choi, Jong-Young Moon, Dong-Hee Park, Jeong-Jun Lee, Jeong-Hyeon Yang and Jung-Pil Noh	Prediction improvement of deterioration trend of rotating machine using technical indicators

#### A-8: Dynamics Modelling and Analysis 5

Chair: Akinori Tomoda (Fukuoka Institute of Technology)

13:10	136	Ryuji Imai, Gen Tamaoki, Kousuke Suzuki, Kazuhito Kato and Takuya Yoshimura	Analysis and Modeling of the Dynamic Characteristics of the Human Body-Seat System in Low-Frequency and Large-Amplitude Oscillation
13:30	139	Kenshin Suzuki, Gen Tamaoki and Takuya Yoshimura	Modeling of Human-Seat System for Comfort Evaluation under Automotive Running Condition
13:50	8	Guo-Kang Er, Xin Chen, Vai Pan Lu and Chi Chiu Lam	The Transient Probabilistic Solutions of The Random Vibrations of von Kármán Plate under Gaussian White Noise
14:10	16	Zhuogeng Zhang, Hongli Ji and Jinhao Qiu	Research on the Combined Nonlinear-Acoustic Black Hole Absorber in Panel Flutter Suppression