

## Catalogue

### Keynote speech

- 1 Past, Present and Future of Superconducting Magnetic Levitation
- 2 Complex Evaluation of Maglev Transport Lines Construction Effectiveness
- 3 High-speed maglev systems: Disruptive technologies in passenger transport?

### Oral Presentation

#### Structure & Dynamics

- 4 Vibration Test and Analysis of Medium and Low Speed Maglev Switch
- 5 A modeling method for the maglev guideway structures
- 6 Numerical Analysis of High-Speed Maglev Vehicle Dynamics Considering the Flexibility of Running Part
- 7 Numerical Analyses on Coupled Vibration Response Between the Medium-low Speed Maglev Vehicle and T-shaped Rigid Frame Bridge
- 8 Simulation analysis of coupled dynamic of medium - low speed maglev train-track-girder with different stiffness
- 9 Research on Dynamics of Medium-low speed maglev train-track-curved girder
- 10 Carbody Design Research of 600 km/h High-speed Maglev Train
- 11 Experimental Study on Dynamic Performance of Medium and Low Speed Maglev Train Running on the Turnout
- 12 Dynamic Characteristics of High-speed Maglev Separated Track Beam
- 13 Simulation of a High-Speed Maglev Train on an Elastic Guideway of Infinite Length
- 14 Modeling of the Transrapid's Electromagnets and the Application to Large Mechatronic Vehicle Models
- 15 Computation of Maglev System Response by Transfer Functions
- 16 Transport system with magnetic unloading

#### Control & Feedback Loop

- 17 The Influence of Aerodynamic Lift on High-Speed Maglev Levitation and Propulsion
- 18 Modeling and Control of Asymmetric Suspension Electromagnet for Medium-Low Speed Maglev Train
- 19 An improved overmodulation strategy for a three-level NPC inverter considering neutral-point voltage balance and CMV suppression in high-speed Maglev application
- 20 Field Test and Study on Running Stability of Fenghuang Medium and Low Speed Maglev Train
- 21 Suspension Control of Maglev Train Based on Extended Kalman Filter and Linear Quadratic Optimization
- 22 Performance Evaluation of Control Circuit of Electric Maglev System Based on Hurst Index
- 23 The Research on Control Algorithm of Maglev Train Levitation System Based on Reinforcement Learning
- 24 Research on The Method of Disturbance Rejection Caused By Railway Step Based on Active Disturbance Rejection Control
- 25 Research on Suspension Guidance Control Algorithm of High-speed Maglev Train
- 26 Improved LADRC for Rotor System of Magnetic Levitation Turbomachinery
- 27 An AEFA-based Optimum Design of Fuzzy PID Controller for Attitude Control Flywheel with BLDC Motor
- 28 Improved Sliding-Mode Reaching Law for Speed Control of TPMLSM via Disturbance Observer
- 29 Modeling and Simulation of Single-point Hybrid Levitation System based on Active Disturbance Rejection Control

#### Development, Application & Related Topics

- 30 Research on High-Speed EMS Maglev in Low Pressure Vacuum Pipeline
- 31 Fault detection for Suspension System of Maglev Trains based on Historical Health Data
- 32 Characteristic Analysis of an E-type Electromagnet for Maglev Train
- 33 Research on Short-Circuit Fault of High-speed Maglev Traction Linear Motor
- 34 Iron Loss Analysis of Long-Stator Linear Synchronous Motor in High-Speed Maglev Train
- 35 Research Progress on Several Key Technologies of EDS in China
- 36 EcoMaglev: Infra Upcycling in Magnetic Levitation
- 37 Optimal Design of a Scaled Linear Switched Reluctance Motor for Hyperloop and Freight Forward Applications
- 38 Verification of Levitation Attitude in Maglev Transport System Using Only Linear Induction Motor
- 39 Particulate Matter Emissions in Track-Bound High-Speed Transportation Systems
- 40 Planning Process for the Implementation of Maglev Systems using the example of Maglev Logistic
- 41 Is Maglev an Interesting Option for a Sustainable Scandinavian Transport Network?

### Poster

- 42 Experimental Study on Vehicle Rail Magnetic Coupling Vibration Characteristics of Long Stator Medium Speed Maglev Train
- 43 Application of Inverter Energy Feedback Device on the Inhibition of Positive Rail Voltage Rise under the Medium-low-speed Maglev Regenerative Braking Scenarios
- 44 Suspension Gap Synchronous Control of Medium-Low Speed Maglev
- 45 Comparative Research on the Surface Temperature Effect of Low-Speed Maglev Steel and Concrete BoxGirder
- 46 Study on the Influence Factors of Substructure Deformation of Shanghai Maglev Line Due to Nearby Foundation Pits Excavation Based on Orthogonal Test
- 47 Research on Decentralized Control Handover Hierarchical CPN Modeling of 600km/h High-Speed Maglev Train
- 48 Study on the Surface Temperature Law of Steel Box Girder of Low-Speed Maglev System
- 49 Application of Comprehensive Technical Monitoring and Protection in Maglev Protection Zone
- 50 Robust Controller Design and Analysis for Guidance System of High-Speed Maglev Train
- 51 Analysis and Design of an Intelligent Operation and Maintenance System for Medium-Low Speed Maglev Trains
- 52 Research on Thickness Detection of Current Collector Slide of Medium-Low Speed Maglev Trains based on Image Processing
- 53 Levitation System Condition Evaluation Method based on Weighted Hellinger Distance
- 54 Simulation Analysis on the Track Adaptability of High Speed Maglev Train
- 55 Study on Maglev Suspension Control based on Data Driven Nonlinear Iterative Inversion
- 56 Modeling and Analysis of Electromagnetic Field of MSBS
- 57 Technical Analysis and Application of Permanent Magnet EDS based on Halbach Structure
- 58 Three-dimensional Modelling and Validation for the Ultra-high Speed EDS Rocket Sled with PM Halbach Array
- 59 Dynamic Response Analysis of Medium-low-speed Maglev Vehicle-bridge Coupled System Considering Levitation Failure
- 60 Study on Dynamics Modeling of Two-Sided PM EDS Maglev System
- 61 Experiment Analysis and Guideway Optimization of Permanent Magnets Eddy Current Brake Applied on HTS Maglev System
- 62 Magnetic driven oil-free scroll compressor with decentralized control
- 63 Experimental Study on the Influence of Al Alloy Permanent Magnetic Guideway Enclosure on the Dynamic Performance of HTS Pinning Maglev System
- 64 Lateral Dynamic Performance of High-temperature Superconducting Pinning Maglev Vehicle Driven by Electrodynamical Wheel at Medium and Low Speed
- 65 Multi-objective Parameter Optimization of Electromagnetic Shunt Damper for High-temperature Superconducting Maglev Vehicle System
- 66 Experimental Study on Suspension System Based on Improved Double Closed-loop Control Strategy
- 67 Analysis and Eliminate of High order Harmonics in High speed Maglev Propulsion Converter System
- 68 Development and Test Platform of High-Speed Maglev Traction System Based On Physical Hardware In The Loop
- 69 Study on High-Speed Maglev Headway Calculation and Auxiliary Stop Area Position Setting
- 70 The Application of Distributed Acoustic Sensing Technology in High-Speed Maglev Line Monitoring
- 71 Modeling Analysis of High-speed Maglev Track Beam
- 72 Design and Implementation of Communication Interface for Magnetic Field Monitoring Probe
- 73 An Improved High-speed Maglev Train Speed Sensorless Control in Double Feed Mode
- 74 Sensorless Control Strategy for High-speed Maglev Based on a Nonlinear Flux Observer
- 75 Coupling Modeling of Long Stator Linear Synchronous Motor of High-Speed Maglev Train
- 76 Research on Levitation Controller Fault Diagnosis Based on Bayesian Network
- 77 Research and Development of a 200kmh Medium Speed Maglev Train
- 78 Characteristic Analysis of Permanent Magnet Electromagnetic Hybrid Suspension Guidance System for Maglev Train
- 79 Influence of F-rail Plate Width on Medium and Low Speed Maglev Vehicles
- 80 Mechanical Properties of Composite Track Beam for Medium and Low Speed Maglev Transit
- 81 On the Suspension of the Experimental UAQ4 High-temperature Superconducting Maglev Train

### Proceedings

- 82 Dual-Band Equivalent Circuit of the Maglev Chopper - Suspension Electromagnet System
- 83 Analysis of Low and Medium Speed Maglev Vibration Considering Core Loss
- 84 Aerodynamic Optimization for the High-speed Maglev Train Nose
- 85 Analysis on Energy Consumption and Efficiency of EMS High Speed Maglev Transportation System
- 86 Application Analysis of Ultra Wide Band Positioning Technology in High Speed Maglev System
- 87 Application of Intelligent Audio and Video in Passenger Information System of Maglev Train
- 88 Application of Structural Health Monitoring for Rail Vehicles based on Multi-source Sensing Technology
- 89 Based on Pseudo-Excitation Method to Study Dynamic Response of Track Irregularity on Maglev Vehicle
- 90 Contactless Power Supply technology for maglev train
- 91 Study On Interior Noise Control and Simulation Verification of High-speed Maglev Train
- 92 Research on Key Technologies and Development of 600km/h High-speed Maglev Transportation System in China
- 93 Research on the Dynamic Adaptability of High-speed Maglev Train Lines
- 94 Study on Levitation Gap Control of Maglev Train Based on Multi-Agent System
- 95 Study on Preparation and Properties of Composite for the Skid of High Speed Maglev Train
- 96 Verification of Levitation Chassis Dynamics Model of High Speed Maglev Vehicle
- 97 Design and Analysis of The Carbon Fiber Reinforced Composites Skirt Plate on High Speed Maglev Trains
- 98 Analysis of Electromagnetic Disturbance Characteristics of Traction Drive System
- 99 Study on Corrosion Mechanism of Communication Connector in Running Mechanism of High-speed Maglev Train
- 100 A Brief Description to the Operation of Shanghai High-Speed Maglev Line
- 101 Research on gauge of high-speedmaglev vehicle
- 102 Launching of Vehicle Using Maglev Technology