

12th COTA International Conference of Transportation Professionals 2012 (CICTP 2012)

Multimodal Transportation Systems

**Beijing, China
3-6 August 2012**

Volume 1 of 4

Editors:

**Fang “Clara” Fang
Heng Wei**

**Yunpeng Wang
Jun Zhang**

ISBN: 978-1-62276-257-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2012) by the American Society of Civil Engineers
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the American Society of Civil Engineers
at the address below.

American Society of Civil Engineers
1801 Alexander Bell Drive
Reston, VA 20191

Phone: (800) 548-2723
Fax: (703) 295-6333

www.asce.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Volume 1

COMPREHENSIVE TRANSPORTATION PLANNING

Self-Organizing Relation between Resident Trip Mode Choice and Transit Priority Policy—Case Study in Changchun, China	1
<i>Bei Zhao, Shuzhi Zhao, Yumpeng Wang</i>	
Location Configuration Design of New Park-and-Ride Facilities in Beijing, China	11
<i>Xin Yue Chen, Xiao Kuan Yang, Zhi Xu</i>	
Research of Parking Demand Forecast Model Based on Regional Development	23
<i>Kun Chen, Jian-Jun Wang, Fei Han</i>	
Synthetic Evaluation for Transportation Modes Based on Fuzzy Matter-Element Model with Discrete Catastrophe Theory	30
<i>Mengmeng Zhou, Jiaqi Yang</i>	
The Degree of Complexity for a Separate Intersection and a Road Network	40
<i>Jiajun Shen, Wei Wang</i>	
A Review of Activity-Based Travel Demand Modeling	48
<i>Zhaoming Chu, Lin Cheng, Hui Chen</i>	
Ordered Logistics Model for Gender Difference in Activity Frequency	60
<i>Min Yang, Jingyao Zhao, Feifei Yu, Jingxian Wu</i>	
Modeling Activity-Travel Behavior of Urban Low-Income Residents	71
<i>Hui Chen, Xuewu Chen, Zhaoming Chu, Min Yang</i>	
Traffic Planning of Winter Olympics for Cold Regions in China: A Case Study of Harbin	83
<i>Xu Yao, Yaping Zhang</i>	
Bi-Criteria System Optimum with Fixed Demand and Continuously Distributed Value of Time	90
<i>Xin Wang, Hai-Jun Huang, Li-Jun Tian</i>	
The Relationship between Highways and Urban Roads in Urbanization	99
<i>Yinghong Jiang, Qingyan Peng</i>	
The Shortest Distance Method of Total Intensive Mode Transfer in Passenger Terminal Layout: A Case Study of Beijing-Shanghai High-Speed Railway Station in Zhenjiang City	105
<i>Yinghong Jiang, Qingyan Peng</i>	
Travel Behavior of New Town Residents: A Case Study of Fangshan in Beijing	111
<i>Chunyan Li, Xian Li, Dexin Zhang, Changping Liu</i>	
The Private Car License Plate Auction in Shanghai: Macro-Effectiveness and Micro-Mechanisms	118
<i>Su-Wei Feng, Qiang Li, Dan Xu</i>	
The Relationship between Resident Trip Characteristics and Spatial Evolution of the Ribbon Group City—A Case Study in Lanzhou	130
<i>Qing Li</i>	
Research on Impact of Parking Behavior Based on Floating Parking Charges	142
<i>Jingheng Zheng, Jun Chen, Xiaofei Ye, Chunyan Li</i>	
Research on the Method of How to Design HOV Lanes Based on the Basic Section of an Urban Arterial Road in China	151
<i>Shejun Deng, Jun Chen, Chunyan Li, Xin Bi, Hao Lin</i>	
LOGIT-Based Road Network Optimization Model	161
<i>Han Bai, Fengrui Sun, Yuan Zhang, Yang-Dong Zhao</i>	
A Method to Estimate Limits to Highway Network Scale	171
<i>Han Bai, Ling-Xiang Wei, Yuan Zhang, Yangdong Zhao</i>	
Research of Adaptive Fuzzy Comprehensive Evaluation for Highway and Economic Development	180
<i>Han Bai, Kai Deng, Zhang Yuan, Zhaoyang Dong</i>	
Access Road Planning and Traffic Operation for High-Speed Railway Hub	191
<i>Xiaolin Gong, Xiucheng Guo, Xiaohong Jiang</i>	
Xiamen's Middle School Students' Trip Characteristics Research	200
<i>Yueer Gao, Ming Ding</i>	
Analysis of Urban Transportation System Effect: Evaluating the Difference between Mobility and Accessibility in Orientation	207
<i>Wenxin Lin, Xin Fu, Tao Mao</i>	
Regional O-D Survey Method by Vehicle License Plate Recognition Technology	218
<i>Ji-Biao Zhou, Hong Chen, Jing Zhao, Han Zeng, Xiao-Wei Li</i>	
An Effective Approach to Bicycle Improvement in a Historic Urban Area by Separating Bicycles from Motorized Traffic: Case Study of Zhenjiang, China	229
<i>Fengjun Yin, Xiucheng Guo, Mao Ye</i>	
Research on the Characteristics of Non-Motorized Traffic in China's Medium-Sized Cities: The Case of Changsha	241
<i>Xinyi Shi, Hangfei Lin</i>	
Parking Price Planning for Shanghai World Expo PR Travel	252
<i>Wen-Hui Li, Neng-Chao Lv, Xin-Ping Yan</i>	

Study on Construction of Human-Based Traffic System for Mountain City	259
<i>Hongxia Feng, Shengrui Zhang</i>	
Travel Characteristics of Different Social Groups in Large Scale Residential Areas in the Periphery of Shanghai: A Case Study of Jinhexincheng	266
<i>Jinping Guan</i>	
Research on Traffic Distribution Forecasting of Mountain Group City	275
<i>Jie Zhao, Ying Hui, Qiong Zhou</i>	
A Study on Forecast Method of Pause Rate in Expressway Service Area	286
<i>Yu Chen, Jianwei Wang</i>	
Model Development of Time-Dependent Evacuation Risk	292
<i>Weijie Lu, Lingjun Lu, Jian Lu, Junbiao Yao</i>	
Regional Tourism Transportation Network Service Level Evaluation and Layout Optimization—Study on Yunnan Province As an Example	301
<i>Feiwen Liang, Xiaofeng Ji, Fang Chen</i>	
Evaluation Index System Design of Comprehensive Transportation Using Balanced Scorecard	310
<i>Hongmei Jia, Bo Dong, Zheng Li</i>	
Improved SP-off-RP Survey Method and Its Application to Mode Choice Model	317
<i>Wenmin Jiao, Chao Yang, Shulin He</i>	
Study on Index System of Traffic Function Ex-Post Evaluation for Major Transportation Infrastructure	329
<i>Xiaoyun Cheng</i>	
OD Travel Time Estimation Model Based on Floating Car Data at Intersection in Metropolis	338
<i>Bowen Du, Weifeng Lv, Man Li, Jiain Huang, Dianfu Ma</i>	
Evaluating the Operational Impacts of Left-Turn Waiting Areas at Dual Left-Turn Lanes at Signalized Intersections	350
<i>Zhao Yang, Pan Liu, Zong Z. Tian, Wei Wang</i>	
Study on the Transportation Development Strategy in Economic Zone Based on System Dynamics	362
<i>Min Zhang, Hong Chen, Chi Zhang, Zhiyong Wu</i>	

TRAFFIC FLOW THEORY, OPERATION, AND MANAGEMENT

Improvement on the BPR Link Performance Function and Classification Calibration in Parameter	373
<i>Hong Chen, Han Zeng, Ji-Biao Zhou, Rong Zeng</i>	
Traffic Flow in a Rectangle Street-Parking-Allowed Manhattan-Like Urban System	383
<i>Ming Li, Rui Jiang, Mao-Bin Hu, Bing-Hong Wang, Qing-Song Wu</i>	
Study on Average Travel Speed in Road Network Calculated by Floating Car Data in Different Samples	393
<i>Feifei Xin, Longyu Wei, Hangfei Lin, Shuangquan Zhou</i>	
Research of the Signal Intersection Phases Design Based on Optimization Theory	402
<i>Yulin Chang, He Zhu</i>	
A Study on the Relations between Port Container Throughput and Truck Trips in Different Logistics Modes	412
<i>Jingqing Zhang, Peng Xiao, Xiaofeng Zhang, Hangfei Lin</i>	
Characteristics Analysis of Traffic Flow Behaviors on Beijing Urban Expressways	422
<i>Weixia Li, Shengchao Yin, Haizheng Zhang, Yi Zhang, Danya Yao</i>	
Study on Capacity for Exclusive Triple Left-Turn Lanes with Outside Trap Lane at Signalized Intersections	434
<i>Erkai Zong, Changqiao Shao, Chao Yang, Miao Bai, Liqin Liu</i>	
Study of ETC Lane Traffic Capacity Based on Passenger Car Equivalent	448
<i>Chen Li, Zhiyong Zhang, Junbin Xu, Kewen Wang, Yujin Li</i>	
Network Equilibrium Modeling Considering the Travelers' Risk Perception on Arrival Time	457
<i>Lijun Tian, Haijun Huang, Xin Wang</i>	
An Efficient Vehicle Queue and Dissipation Detection Algorithm Based on Spatial-Temporal Markov Random Field	468
<i>Jun Zhou, Lin Cheng</i>	
Study on Organization and Control Methods of Traffic Flow Based on Plane Intersection	475
<i>Xuemei Zhang</i>	
Analysis of Traffic Flow Characteristics of Weaving Area between Expressway and Ground Road	481
<i>Shengchuan Jiang, Yuchuan Du, Zhen Tang</i>	
Research of Road Traffic State Classification Threshold Value of Expressway and Arterial Roads in Cities Based on Travel Speed	493
<i>Hongtong Qiu, Yin Zhu, Xiaofeng Wu, Ruimin Li</i>	
Comprehensive Model of Traffic Impedance on Urban Arterial Road with Signalized Intersection	503
<i>Linli Yan, Bing Liu, Jian Lu</i>	
Analysis of On-Ramp Metering Strategies on Urban Freeway Based on Capacity Constraints	510
<i>Jie Yang, Zhizhou Wu</i>	
Research on Pedestrian Crossing Characteristics of Mid-Block Crosswalks Controlled by Push-Button Signal	520
<i>Fei Sheng, Yong-Feng Ma, Jian Lu</i>	
Design of Urban Express Ring Road: Dual-Layer Traffic	533
<i>Qiming Zhang</i>	
Comparison of Highway Traffic Breakdown Features between U.S. and China Using Discrete Wavelet Transform: An Empirical Study	545
<i>Xiqun Chen, Meng Li, Liping Zhang, Zhiheng Li</i>	

Analysis of Traffic Accident Temporal and Spatial Impact Based on Shockwave Theory	557
<i>Guizhen Yu, Yumin Liu, Yunpeng Wang, Xiaoguang Zhu</i>	
Impact of the Signal Timing Optimization on Traffic Environment of Urban Road Based on TSIS.....	568
<i>Heng Zhang, Li Lei, Jianzhang Wang, Tianyu Wang</i>	
Model and Algorithm for Link-Based Stochastic User Equilibrium Traffic Assignment	579
<i>Kui Ji, Lin Cheng, Wenyun Tang</i>	
Traffic Organization Optimization of Wuluo Road Intersections in Wuhan.....	592
<i>Hao Li, Qingnian Zhang</i>	
Evaluating the Reconversion of One-Way Street Pairs to Two-Way Operations in the Central Business District of Hangzhou.....	599
<i>Feng Sun, Diain-Hai Wang, Dong-Fang Ma</i>	
Safety Evaluation of Upgraded Freeways.....	611
<i>Tao Mu</i>	
Path Travel Time Calculation Method of Urban Rail Transit Path Based on Given Time.....	619
<i>Feng Zhou</i>	
A Companion of Four Models: STCA, H-STCA, A-STCA, and T-STCA	628
<i>Hua-Yan Shang, Yu Peng</i>	
A Comparison of Coherent Flow Produced by VISSIM and TransModeler	639
<i>Han Jiang, Zhiheng Li, Jingyan Song</i>	
Walking Behavior of Pedestrian Groups in the Merchandise Streets.....	649
<i>Ning Guo, Jianxun Ding, Xiang Ling, Imamura Takashi, Qin Shi</i>	
Incorporating an Adaptive Adjusting Scheme into Method of Successive Averages for Solving Stochastic User Equilibrium Problem	660
<i>Songlin Qiu, Lin Cheng, Xiangdong Xu, Wei Feng</i>	
Modeling Speed Profile on Freeway Exit Ramps Using Support Vector Regression	671
<i>Bing Huang, Zhenyu Wang, Jian John Lu, Linjun Lu</i>	
Capacity Analysis of Road Segment near Bus Stop Affected by Signalized Intersection	683
<i>Maosheng Li, Hao Chen, Yonghong Zhang</i>	
A Study on Multi-Resolution Modeling of Mesoscopic-Microscopic Traffic Simulation Model.....	695
<i>Liyan Zhang, Jian Ma</i>	
Capacity Research on Cloverleaf Interchange by Using Simulation Loading Method	707
<i>Hongqiao Song, Wanchao Zhang, Xiaokuan Yang</i>	
Optimal Control for Freeway Using a New Dynamic Model.....	718
<i>Nan Jiang, Weihua Zhang, Shengkai Zhang, Xiaolin Xie</i>	
Research on Parameter Calibration between Travel Time and Traffic Demand Oriented on Macro and Micro Inter-Validation	726
<i>Yan-Hong Li, Xiao-Nian Sun, Zhen-Zhou Yuan, Andres Monzon</i>	
Study on Energy Dissipation of Mixed Traffic Flow Using Cellular Automata.....	736
<i>Haifei Yang, Yue Qi, Xiaoqian Li, Jian Lu</i>	
Study on Traffic Signal Warrants Based on Analysis of “Volume-Delay” Relationship	744
<i>Youyang Wan, Xiaokuan Yang</i>	
A Multi-Path Astar Algorithm for Recognizing Reasonable Route Set	756
<i>Wei Yin, Xiao-Guang Yang</i>	
A Cellular Automata Model of Traffic Flow with Consideration of Distribution of Time to Collision	764
<i>Haifei Yang, Jian Lu, Jun Jiang, Xiaomin Zhan</i>	
Truck Management Strategies on Freeways during Holidays	774
<i>Liande Zhong, Yongchuan Zhou, Keman Wu</i>	
Traffic Engineering Optimization Design Methods for Downtown Area of County Cities—A Case Study of Chengde, China.....	781
<i>Yue-Yue Wang, Jian-Cheng Weng, Jian Rong</i>	
An Equilibrium-Right-of-Way Based Capacity at Signalized Intersection	794
<i>Weiqi Wang, Xiaokuan Yang, Wanchao Zhang</i>	
Research on Theoretical Model of En Route Sector Capacity	805
<i>Xin Liu, Lijuan Ma</i>	
Can Highway Capacity Manual Model Be Used to Estimate the Capacity of Modern Roundabouts in China? A Case Study in Nanjing.....	812
<i>Qiyu Liang, Pan Liu, Hao Wang, Hao Yu</i>	
Estimation of Intersection Turning Movement Proportions Using MATLAB	822
<i>Xiao Zhang, Xiaoyu Cai, Lijun Sun</i>	
Comfortable Speed and Car-Following Distance on Urban Flat and Straight Road	829
<i>Jing-Shuai Yang, Jing-Min Lei, Juan Wang, Shao-Hui Pi</i>	
 <u>TRAVELER AND TRAFFIC INFORMATION AND CONTROL</u>	
Research on Architecture of Intelligent Transportation Application System	837
<i>Yongkai Hu, Wei Wang, Haiyan Gu, Fengping Zhan, Lili Qiao</i>	
Study on the Intelligent Transport System and Social Economic Development	845
<i>Haiyan Gu, Wei Wang, Yongkai Hu, Lili Qiao, Fengping Zhan</i>	

Video-Based Traffic Parameter Extraction with an Improved Vehicle Tracking Algorithm	856
<i>Song-Hao Wang, Zhi-Heng Li, Zuo Zhang, Ji-Yuan Tan</i>	
Effects of Count-Down Signal Lights on Pedestrian Behaviors at Signalized Intersections	867
<i>Jian-Jun Shi, Jing Chen, Qing Zhao</i>	
Study on Route Choice Behavior Control Based on the Internet of Things	876
<i>Jianjun Shi, Mengyang Qin, Shengqing Shi</i>	
Analyzing Commuting Characteristics in Beijing through License Plate Recognition System Data	883
<i>Jian-Jun Shi, Jing Chen, Qing Zhao</i>	
A Traffic State Assessment Based on Grey Clustering Analysis	894
<i>Min Guo, Jinhui Lan, Juanjuan Li, Zongshu Ling, Min Liu</i>	
Active Traffic Control for Oversaturated Intersection Group in Emergency Evacuation	903
<i>Zhengfeng Huang, Gang Ren, Chao Fan</i>	

Volume 2

Examples of Validating an Adaptive Kalman Filter Model for Short-Term Traffic Flow Prediction	912
<i>Liyan Zhang, Jian Ma, Jian Sun</i>	
Research on Wireless Access in Vehicular Environment Based on IEEE 802.11p	923
<i>Shuai Chen, Decun Dong, Wei Nai, Wenyi Zheng, Weiping Jing</i>	
Multi-Aircraft Inertial Navigation Data Fusion Method Aided by One Pseudolite	932
<i>Jun-Cheng Liu, Jing-Juan Zhang, Li-Fen Tan</i>	
Study on Start-Up Lost Time of Traffic Signals with Count-Down Display and the Driving Behavior at the End of Green Signal	941
<i>Cong Zhang, Yongfeng Ma, Jian Lu</i>	
Study on the Relationship between Urban Road Network Service Level and Capacity	953
<i>Zhaowei Qu, Yan Xing, Hongyu Hu, Xianmin Song, Yuzhou Duan</i>	
Research on Road Network Model Considering Road Toll	960
<i>Lan Gui, Feng Tan</i>	
Simulation-Based Comprehensive Evaluation of Left-Turn-Waiting Zone at Signalized Intersection with Separated Left Turn Phases	970
<i>Yan Lu, Wanjing Ma, Xiaoming You</i>	
Study of Real-Time Traffic Processing Models for Inter-City Highways Based on FCD Data Sources	981
<i>Zhiping Zhang, Hangfei Lin</i>	
Static OD Estimation and Evaluation Based on DynaCHINA	993
<i>Changjia Chen, Zhaocheng He, Xiubin Dai</i>	
An Adaptive Two-Stage Fuzzy Controller for Traffic Signals: Architecture, Algorithms, and Simulation	1004
<i>Wenchen Yang, Lun Zhang, Zhaocheng He, Qian Rao</i>	
Model of the Ionospheric Delay Correction Based on CORS for Vehicle Navigation and Positioning	1016
<i>Lei Wang, Wu-Sheng Hu</i>	
Research on Intersection Signal Timing Model Considering Emissions Effects	1024
<i>Hong Chen, Ru Bai, Juan Ma, Dongya Wang</i>	
New Controlling Methods for Alleviating Recurrent Congestion on Freeway Merge Area	1035
<i>Liang Wang, Xiaoguang Yang</i>	
Traffic State Identification Considering Differences between Road Segments and Intersections	1044
<i>Rui Dou, Meiping Yun, Xiaoguang Yang</i>	
Design and Implementation of Traffic Signal Controller with GPS Timing Function	1055
<i>Chao Cai, Hang Yan, Hao Chen, Hongke Xu</i>	
Study on the Early Warning System of Road Passenger Transport	1065
<i>Jian-You Zhao, Yun-Jiao Zhang, Yi-Fan Pan, Jian He</i>	
Real-Time Accuracy Degree Forecast of Estimated Link Average Travel Time Based on Data Fusion Method	1077
<i>Hui-Bing Li, Xiao-Guang Yang</i>	
Research of In-Service Regulatory Signs Sheeting, Retro-Reflectivity, and Deterioration Characteristics	1087
<i>Ming Jiang, Rui Zhou</i>	
A Regional Pilot Weather Information System for Surface Transportation and Incident Management: Concept of Operations	1096
<i>Zhirui Ye, Xianming Shi, Shaowei Wang, Lisa Ballard, Enzhen Huang</i>	
Study on the Adaptability of On-Board Navigation Equipment for Older People	1107
<i>Lin Zhang, Bin Wang, Hongmei Jia, Bo Dong</i>	
Highway Network Intelligent Coordinated Information Dissemination Model Based on VMS	1115
<i>Nale Zhao, Tianran Zhou, Changcheng Li, Xiaoling Zhi, Han Hu</i>	
Traffic Flow Prediction Based on Wavelet Analysis, Improved Genetic Algorithm, and BP Neural Network	1126
<i>Chunxu Liu, Baichuan Lu, Jianfeng Wang</i>	
Responsive Signal Control Design for Urban Traffic Network	1134
<i>Ying Li, Andy H. F. Chow</i>	
Analysis of Weather Impact on Travel Speed and Travel Time Reliability	1145
<i>Liuhi Zhao, Steven I-Jy Chien</i>	

VEHICULAR NETWORKS AND VEHICLE INFRASTRUCTURE INTEGRATION

Study on Cooperative Active Collision Avoidance Algorithm Based on VANets	1156
<i>Yunpeng Wang, Pangwei Wang, Guizhen Yu, Jiajie Wang</i>	
Development and Research of the Simulator for Cooperative Vehicle Infrastructure System	1168
<i>Fuen Chen, Xue Yuan, Yingrong Lu</i>	
Vehicle Collision Warning System and Algorithm at Intersection under Internet-Connected Vehicles Environment	1177
<i>Tianping Liu, Yunpeng Wang, Wenjuan E, Daxin Tian, Guizhen Yu, Jiajie Wang</i>	
An On-Board Information Transmission Unit Based on the CALM	1186
<i>Yunpeng Wang, Xuting Duan, Daxin Tian, Hao Luo, Guangquan Lu, Guizhen Yu, Xiaoguang Zhu</i>	
Vehicle Collision Avoidance Algorithm at Blind Crossing Based on Internet-Connected Vehicles	1194
<i>Wenjuan E, Yunpeng Wang, Yingrong Lu, Daxin Tian, Guangquan Lu</i>	
Research of Integrated Test System for Cooperative Vehicle Infrastructure System	1204
<i>Fuen Chen, Yingrong Lu, Shuang-Shuang Liu, Xue Yuan</i>	
A Vehicle-Vehicle Conflict Detection Algorithm at Unsignalized Intersections Based on the Information Interaction	1214
<i>Ran Zhang, Yunpeng Wang, Guangquan Lu, Daxin Tian, Guizhen Yu, Jian Wu</i>	
Research of Drivers' Car-Following Behavior with Car-Following Suggestion	1223
<i>Hongfei Jia, Siyuan Gong, Dong Yang, Yanling Li</i>	
Sensitivity Analysis of Probe Data Characteristics on Traffic Control Strategy in Vehicle Infrastructure Integration	1235
<i>Jiao Yao, Xiaoguang Yang</i>	
A 3D Curve Lane Detection and Tracking System Based on Stereovision	1247
<i>Feng Gao, Dawei Jiang, Guoyan Xu, Ying Cui, Xiaowei Wang</i>	
An Improved Image Segmentation Algorithm for Otsu Method Based on Lane Marking Identification	1259
<i>Guoyan Xu, Mingming Ma, Feng Gao, Jianxing Liu, Ying Cui</i>	
Performance Evaluation of Lane Level Positioning Based Vehicle Collision Avoidance for Cooperative Vehicle Infrastructure System	1266
<i>Jiang Liu, Yunpeng Wang, Baigen Cai, Jian Wang</i>	
Literature Review of Speed Guidance Methods Research	1279
<i>Yujie Fan, Zhizhou Wu, Jianqiao Zhang, Pan Hu, Xiaoguang Yang</i>	
Outage Performance Analysis of Vehicular Cooperative Network with Network Coding	1289
<i>Huixian Wang, Jian Liu, Hongjiang Zheng, Wei Chen</i>	
A New Mobile Relay Selection Scheme in Vehicle Cooperative Communication Network	1299
<i>Hongjiang Zheng, Jian Liu, Hongyang Lu, Wei Chen</i>	
Construction of Inter-Vehicle Communication Platform Based on WAVE Protocol	1311
<i>Luoyi Huang, Jiafeng Jiang, Xiaoguang Yang, Yinsong Wang</i>	
A Novel Urban Traffic Control Approach Considering Travelers' Intentions	1318
<i>Neng-Chao Lv, Xin-Ping Yan, Chao-Zhong Wu</i>	
Speed Control for Automated Highway Vehicles under Road Gradient Conditions	1327
<i>Rui Zhang, Nengchao Lv, Chaozhong Wu, Xiping Yan</i>	

PUBLIC TRANSPORTATION

Public Transportation Travel Mode Choice Behavior Research	1337
<i>Huanhuan Yin, Juan Li, Hongzheng Zhao</i>	
Travel Behavior of Commuters Based on Logit Model	1345
<i>Fangfang Shao, Hongzhi Guan, Yan Han</i>	
Analysis of Single-Line Passenger Flow Based on IC Data and GPS Data	1350
<i>Weijing Duan, Yanyan Chen, Jianhui Lai</i>	
Evaluation of Feeder Bus in Residential Area	1358
<i>Lin Zhao, Yang Bian, Jian Rong</i>	
Calibration and Application of Passenger Parameters in Commuter Based on Social Force Model	1369
<i>Jin Xin Cao, Ke Yi Zhu, Xia Xi Li</i>	
Using Planning and Management to Prevent and Cure Traffic Accidents of Electric Bicycles	1381
<i>Qing Jiang, Rongguo Ma, Yajuan Deng</i>	
Research of Resort Public Transport Development and Land Uses Based on TOD Model	1387
<i>Jian-Jun Wang, Kun Chen, Fei Han, Miao-Miao Wang</i>	
Optimizing Train Connection of Urban Railway Network Considering Passenger Saturation	1399
<i>Wen-Liang Zhou, Xia Yang, Mei-Quan Xie</i>	
Research on the Irrational Behaviors of Passengers in Terminal	1410
<i>Jin Xin Cao, Qiu Si Jin, Tao Feng Xie</i>	
Passenger Flow Characteristics and Bus Rapid Transit: A Case Study of BRT in Xiamen, China	1422
<i>Yueer Gao, Xiaohong Chen, Ming Ding, Yiwei Ma</i>	
Study of Priority Mode Development for Public Transportation	1432
<i>Quan Liang</i>	
Analyze the Problem of Investment and Financing for Building Urban Bus Station	1442
<i>Rong Huan, Rui Tang, Junyou Zhang</i>	

Gender Difference Analysis in Commuter Trips in Public Transit Mode in Metropolitan, China: Taking Jinhe Residential Community in Peripheral New Town of Shanghai As an Example	1449
<i>Chuan Chen, Chen Zhu</i>	
Time-Dividing Method of Bus Passenger Flow Based on Two Dimensional Similarities	1461
<i>Haijian Bai, Ruijuan Dong, Wenquan Li, Weihua Zhang</i>	
Influence Analysis of Bus Lane on Traffic Operation in Intersection	1472
<i>Xi Xia, Zhaocheng He, Jiasheng Fang, Weiliang Zeng</i>	
Urban Public Transport Competitiveness Evaluation Based on AHP and Extension Theory	1484
<i>Sitao Hu, Chuchu Dai, Shutang Cui</i>	
Study on the Hierarchical Structure of Park and Ride Facilities in Historic City	1493
<i>Xueping Dou, Xiucheng Guo, Limei Luo, Yue Fei</i>	
Multi-Objective Optimization Model for Headway of Bus Transit in Rural Areas	1505
<i>Xiaohong Jiang, Xiucheng Guo, Yadan Yan, Xiaolin Gong, Wei Zhu</i>	
Infrastructure Research and Multi-Resolution Modeling of Cooperative Vehicle-Infrastructure System	1515
<i>Si-Hui Li, Shangguan Wei, Bai-Gen Cai</i>	
The Number of Motor Vehicles in Urban Management: The Case of Beijing	1527
<i>Xinyu Wang, Zhenling Chen</i>	
Modified Road Speed Models Considering Traffic Flow with and without Bus Lanes and Analysis of the Condition of Setting Bus Lanes	1532
<i>Tao Wang, Jun Chen, Xiaofei Ye</i>	
A New Model for Excessive Lateral Vibration of a Footbridge Induced by Pedestrians	1542
<i>Weiping Xie, Long Liu, Linlin Chen</i>	
Relationship between BRT Berthing Time and the Number of Passengers Getting on and off in Jinan City	1554
<i>Chao Gao, Hai-Yong Chen, Zhi-Li Cai, Xiao-Kuan Yang</i>	
Optimization Analyses of Bus Stations' Operational Efficiency	1560
<i>Liya Yao, Lishan Sun, Xiong Hui, Wuhong Wang</i>	
Adaptability Evaluation of Urban Public Transport Based on Weighted Grey Incidence Degree	1568
<i>Hong Chen, Yao Wu, Yanyong Guo</i>	
Measuring Stop Connectivity within a Transit Network	1577
<i>Chen Li, Zhengdong Huang</i>	
Study of Two Phase Bus Signal Priority Strategy on Intersection Based on Cooperative Vehicle Infrastructure	1587
<i>Can-Liang Ma, Song Gao, Yong-Zheng Xu, Tao Wu</i>	
A GIS Based Model for Land Use and Transit-Integrated Corridor Optimization	1598
<i>Mingmin Chen, Zhengdong Huang, Ming Zhang</i>	
Passengers' Modal Choice for Vertical Shifts in Metro Stations: Cases from Shanghai	1608
<i>Dong Zhang, Jing Teng, Xinghao Song, Xiaoguang Yang</i>	
Analysis on Urban Transit Priority Development Level Based on AHP Fuzzy Comprehensive Evaluation	1620
<i>Wenjing Wang, Xi Chen, Jinbao Zhao, Jing Wang</i>	
The Implementing Conditions of Integrated Urban and Rural Public Transport: A Case Analysis in Shijiazhuang, China	1631
<i>Pei Zhu, Hangfei Lin</i>	
Investigation, Analysis, and Modeling of Choice Behavior of Park and Ride	1643
<i>Xianwei Liu, Meiping Yun, Zhenhuan Chen, Xiaoguang Yang</i>	
An Approach to Bus Travel Time Prediction Based on the Adaptive Fading Kalman Filter Algorithm	1652
<i>Baojie Wang, Wei Wang, Min Yang, Liuyi Gao</i>	
Research on the Management of System Configurations for Public Traffic in Medium and Small Cities	1662
<i>Hongyun Yao, Sha Huang, Jingyu Meng</i>	
Public Transport Smart Card Data Analysis and Passenger Flow Distribution	1671
<i>Man Li, Bowen Du, Jian Huang, Tongyu Zhu</i>	

RAILWAY TRANSPORTATION

Evaluation of Urban Mass Transit Network Based on Gray Correlation—TOPPSIS	1684
<i>Shaofang Wen, Haining Liu, Lijuan Wang, Tongyin Han</i>	
Simulation of High-Speed Train Operation Using a Semi-Physical Model	1691
<i>Zixi Bai, Leishan Zhou, Yixiang Yue</i>	
Evaluation and Analysis of Network Operation of Urban Rail Transport Based on ANP	1700
<i>Hanchuan Pan, Ruirang Wang, Liang Kong</i>	
Field Test and Simulation of High-Speed Railway Section Where the Plane Curve and Vertical Curve Overlapped	1708
<i>Xiangguo Li, Chao Ma</i>	
Accessibility Distribution Impact of Intercity Rail Transit Development on Pearl River Delta Region in China	1719
<i>Xiaoshu Cao, Linna Li</i>	
City Rail Transit Network Schemes Evaluation Based on TOPSIS, Including AHP and Entropy	1731
<i>Lu Wang, Hong Chen, Xiaowei Li</i>	
Study on Lifespan of Urban Rail Transit Ex Post Facto Evaluation Projects	1739
<i>Xiaoqian Liu, Xiaofa Shi</i>	
Preliminary Analysis of Transfer to the Volume of Park and Ride in Xi'an	1749
<i>Jian-You Zhao, Yi-Fan Pan, Yun-Jiao Zhang, Xin Wang</i>	

Research on a Dynamic Ticket Pricing Model for the Passenger Dedicated Lines	1758
<i>Ruiwei Chen</i>	
Optimization Method for Train Plan of Urban Rail Transit with Elastic Demands	1770
<i>Qiang Zeng, Lianbo Deng, Wai Gao, Wenliang Zhou</i>	
Study on Safety Management Mode for Operating Urban Rail Transit	1782
<i>Man-Man Xu, Fei Han, Fang Liu</i>	
Intercity Travel Behaviors with the Introduction of High-Speed Rail	1793
<i>Jian Liu, Ning Zhang</i>	
Passenger Flow Distribution Simulation for URT	1802
<i>Shimin Du</i>	
Efficiency and Applicability of “Stand Right, Walk Left” Escalator Policy at Mass Transit Station	1814
<i>Xiaoyi Qu, Xiaolei Zou</i>	
Rational Traffic Connection between Newly-Built High Speed Railway and Existing Railway in China	1822
<i>Shengli Xia, Hao Yang, Ke Xu</i>	

Volume 3

CIVIL AIR TRANSPORTATION

Civil Aviation Risk Model Based on RON Neural Network	1828
<i>Yanyang Wang, Yihua Cao, Jing Li</i>	
Sector Dynamic Capacity Assessment Based on Improved Dynamic Density	1837
<i>Kai Chen, Yun-Feng Zhang</i>	
Fuzzy Comprehensive Performance Evaluation Method for Radar Control	1845
<i>Yigang Huang, Yongxin Liu, Debin Zhao, Xiangbo Song</i>	
Optimizing Gate Assignments at Airports	1857
<i>Chen Zhang, Pan Zheng</i>	
Research on Pinning Control of Chinese Aviation Network	1867
<i>Hongguang Yao, Cheng Li</i>	
Research into Flight Trajectories Recreation and Playback	1876
<i>Xiangling Zhao</i>	
Establishment of the Safety Culture in Civil Aviation Air Traffic Control	1886
<i>Jian Zhang, Wan-Le Wang, Yong-Xin Liu, Xiang-Bo Song</i>	
Optimization of Airspace Sectorization Based on Weighted Graph and Hybrid Encoding Genetic Algorithm	1891
<i>Hong Bi, Yangzhou Chen, Defu Zhang, Zhuoxi Song</i>	
Measurement of Controller Workloads Based on Air Traffic Complexity Factors	1903
<i>Zhuoxi Song, Yangzhou Chen, Zhenlong Li, Defu Zhang, Hong Bi</i>	
Comparison Study of Lateral Flight Technical Error Due to Turbulence in Performance Based Navigation	1915
<i>Hong-Sheng Zhao, Xiao-Hao Xu, Jun Zhang, Yanbo Zhu</i>	
Airspace Sectorization Based on Weighted Graph Spectral Bisection Algorithm	1924
<i>Defu Zhang, Yangzhou Chen, Hong Bi, Zhuoxi Song</i>	
Survival Strategies of Regional Airports: Enhancing Non-Aeronautical Activities	1936
<i>Nikin Vaja, Yang Dai</i>	
A Comparative Study of Air and Railway (Time and Cost) Analysis: China and Europe	1945
<i>Jingping Lu, Yang Dai, Peter Foyer</i>	

Logistics and Freight Transportation

Research on Grain Logistics Demand Forecasting Based on System Dynamics	1957
<i>Ying-Rong Lu, Jing Fu</i>	
Research of International Logistics Information Platform Based on SOA	1965
<i>Wenji Fan, Jingyan Gu, Hui Wang, Zhang Cheng</i>	
Research on Delay Diffusion Critical Value and Mode in Logistics Network	1975
<i>Hongguang Yao, Jiani Zhao</i>	
Research on the Optimization Model for Urban Cool Chain Distribution	1981
<i>Rongyan Zhu, Lei Li</i>	
Research on Modeling of Cold Chain Distribution Based on Timed Colored Petri Net	1988
<i>Yuan Feng, Dawei Hu</i>	
Modeling the Measurement of Emergency Logistics Capability Maturity	2000
<i>Qian Dai, Jiaqi Yang</i>	
The Quantity Flexibility Contract for Fashion Goods with Uncertainty in Demand and Delivery Time	2009
<i>Yin Zhou, Yu Yang</i>	
Vehicle Scheduling Optimization of Biomass Supply Logistics: A Case of Power Plant Supply Chains	2021
<i>Xuefang Zhang, Yong Zhang, Chengchao Li, Lin Dong</i>	
Research on Key Technology of Drop and Pull Transport for Modern Logistics in China	2028
<i>Chengqiang Zong, Hongwei Zhang, Zhenguo Yi, Yunpeng Wang, Jinsong Dong, Xueli Zhang</i>	

The Combination of Mega Intermodal Freight Trains (MIFTs) and Mega Intermodal Hub (MIH) for Intermodal Transport	2037
<i>Yang Dai, Zhiyong Zhang, QiuHong Zhao</i>	
Promoting Kaohsiung Air-Sea Port Integration with Identity-Oriented Pervasive Networks	2049
<i>Li-Yen Hsu</i>	

TRAFFIC SAFETY AND EMERGENCY RESPONSE

Extraction of the Dynamic Vehicle Driver’s Tendency Feature Based on Car-Following	2061
<i>Xiao-Yuan Wang, Jing-Lei Zhang, Jin Liu, Kai Cao, Song Gao</i>	
Modeling Interactions between Pedestrians and Right-Turn Vehicles at Signalized Intersections	2072
<i>Ziwen Ling, Ying Ni, Keping Li</i>	
Speed Calming Using Vertical Deflections in Road Alignment	2085
<i>Hassan Mahdy</i>	
Kernel Density Estimation Based Method for Hazardous Road Segments Identification	2095
<i>Hao Yu, Pan Liu, Hao Wang, Qiyu Liang</i>	
Evaluation of Rough Sets Theory on Effect Factors in Highway Traffic Accidents	2107
<i>Jia Jia</i>	
Driving Behavior Comprehension through Motion Capture System: Modeling and Its Implications	2119
<i>Jianjun Shi, Qing Zhao, Shuanghong Zhang</i>	
Traffic Incident Characteristics Analysis of Freeway during Holidays	2131
<i>Liande Zhong, Xiuwen Li</i>	
Research on Method of Highway Route Alternative Based on Road Safety Audit	2139
<i>Xu Liu, Jian Zhang, Xiaoming Zhong, Jia Jia</i>	
Questionnaire Survey of Highway Safety Audit Management Policy	2151
<i>Xiaoming Zhong, Xu Liu, Min Chen, Jian Zhang, Hongyuan Wang</i>	
Simulation and Experimental Study on Rollover Impact of a Bus	2161
<i>Guosheng Zhang, Jinghong Li, Weiliang Dai, Ye Chen</i>	
Risk Evaluation of Expressway Traffic Safety under “Prior Restraint” Idea	2169
<i>Jian-Jun Wang, Fa-An Chen</i>	
Study of Identification Method of Black Spots in Intersection of Highway Based on Traffic Conflict Technique	2181
<i>Han Bai, Nan Wang, Yuan Zhang, Yang-Dong Zhao</i>	
Application of Multiple Criteria Decision Method to the Passenger Traffic Safety Evaluation	2190
<i>Tao Pu, Tao Zhang, Yang Yang</i>	
Assessment of Roadside Safety on Mountainous Rural Highway Targeted by Traffic Engineering Facilities	2199
<i>Qingpan Xu, Qiaojun Xiang, Haiyang Leng</i>	
Study on Road Safety Evaluation of Subjectivity and Objectivity Based on Cloud Theory	2207
<i>Xiao-Huan Zhou, Zhi-Zhong Li, Zhong-Yin Guo, Xiao-An Wang</i>	
Sensitivity Analysis of Expressway Traffic Safety Risk	2219
<i>Jian-Jun Wang, Fa-An Chen</i>	
Study of Geometric Design of Rubber Speed Control-Hump	2230
<i>Li Yuan, Min Han</i>	
Reliability Analysis of Cell Phone Use under Different Driving Conditions Based on Simulator	2237
<i>Yufeng Gui, Ziyuan Pu, Jiahua Wu, Junhua Wang</i>	
Statistical Modeling of Grievous Road Traffic Accidents	2249
<i>Fangyuan Li, Dawei Hu, Jing Cao</i>	
Safety Guarantee Technology for Township Sections of Arterial Highways Based on Traffic Safety Diagnosis	2257
<i>Wenbo Zhang, Yongfeng Ma, Jianjohn Lu</i>	
Analysis of Signalized Intersection U-Turn Design Based on the Micro-Simulation Study	2266
<i>Linjun Lu, Daimei Wei, Jian John Lu, Zhengming Li</i>	
Quantifying Accident Causative Factors for China’s Freeway Tunnels with FTA Method	2278
<i>Han Hu, Lin Li, Yan Wang, Feng Zhang</i>	
Research and Design of Real-Time Eye Location and Algorithm	2289
<i>Bo Zhu, Peng-Yun Zhang, Chuang Zhang, Wei Zhou, Jian-Nan Chi, Tian-Xia Zhang</i>	
Analysis on Passing Ability of Double Semitrailer Road Train on Highway Based on TruckSim	2301
<i>Yunpeng Wang, Gang Zhou, Qingfeng Lin, Hongwei Zhang, Jinsong Dong</i>	
Vehicle State Detection in Highway Intelligent Space Based on Information Fusion	2307
<i>Feng Gao, Jianxing Liu, Guoyan Xu, Kaixiang Guo, Ying Cui</i>	
The Effect of Moving Objects on Drivers’ Gaze Point at Unsignalized Intersections with Mixed Traffic	2319
<i>Zhe Zhang, Guangquan Lu, Yunpeng Wang, Daxin Tian, Jian Wu</i>	
Driving Simulator Study of Effect of Left Shoulder on Driver Behavior	2328
<i>Lingbo Yu, Xiaohua Zhao, Jian Rong, Liangqiu Wang, Yi Ping Wu</i>	
Verification Method of Vehicle Driving Tendency Dynamic Recognition Model Based on Simulated Experiment under Car Following	2339
<i>Jin Liu, Xiao-Yuan Wang, Jing-Lei Zhang, Dong Guo</i>	
Design Consistency Evaluation Methods for Freeway Long Tunnels in China	2350
<i>Hongbo Wu, Shouen Fang, Junhong Liao, Fang Wang</i>	
Topological Psychology Based Spatial Distance Cognition of Drivers	2362
<i>Wei-Hua Zhao, Hao Chen, Qiang Yu, Hao-Xue Liu, Miao-Quan Lei</i>	

Parameters Match and Optimization on Controllability and Stability of Tractor-Semitrailers	2368
<i>Chuan-Jin Ou, Xian-Dong Liu, Hong-Wei Zhang, Ying-Chun Shan, Jin-Song Dong</i>	
A Planning Method on the Emergency Rescue Site against Natural Disasters of the Regional Highway Network	2379
<i>Jinshun Yang, Bing Wu, Linbo Li, Lin Xiao</i>	
Some Issues on Development of Speed Management Program on Arterial Highways	2391
<i>Feng Lu, Jingbo Wang</i>	
Applying the Ant Colony Algorithm to the Optimization of Emergency Response Search Paths	2400
<i>Kun Yao, Qing-Quan Chen</i>	
A Fast Video Mosaic Algorithm Based on Optimal Homography Matrix	2407
<i>Wen Wang, Chunyu Zhang, Li Sang, Yong Su, Keyou Guo</i>	
Security Evaluation of Driving Behavior System Based on Virtual Simulation	2415
<i>Fengyuan Wang, Yuhua Ren, Jingyan Lai, Longyue Zheng</i>	
Highway Safety Landscape Design Based on Dynamic Vision	2422
<i>Jin-Ting Liu, Xiang-Bin Meng</i>	
Urban Road Traffic Safety Audit and Improvement in Medium-Sized Cities of China	2433
<i>Jia Jia, Hui Wang, Jian Zhang, Xiaoming Zhong</i>	
Problems and Countermeasures of Road Safety in Disaster-Prone Environment	2443
<i>Guohe Guo, Zanlan Cheng, Guoxiong Wu</i>	
Automatic Detection of Traffic Conflicts at Unsignalized Intersections Using Image Sequences	2452
<i>Miaomiao Liu, Guangquan Lu, Yunpeng Wang, Daxin Tian</i>	
Study on the Driver Safety Cognition of the Highway Speed Evaluation System	2460
<i>Jianbo Wang, Jie Yuan, Bin Chen, Cao He</i>	
Index System of Construction Safety Evaluation Based on Analytic Hierarchy Process	2469
<i>Kaifeng Wang, Yunsheng Zhu, Xiedong Zhang</i>	
Analysis and Countermeasures of Rural Highway Operating Safety in Central Region of China	2474
<i>Shengyu Yan, Qingpeng Meng, Runmou Xiao</i>	
Research on Active Emergency Management Systems Based on Predictions of Traffic Incident Radiation Scope in Regional Road Networks	2482
<i>Xianyuan Dong, Yue Wang, Haozhe Cong</i>	
An Overview of Traffic Characteristics and Vehicle Behavior Theory Research in Urban Earthquake Disaster Emergency Period	2494
<i>Linfu Zhou</i>	
Characteristics Analysis of Traffic Accidents on Rural Roads	2506
<i>Sitao Hu, Qiaojun Xiang</i>	
Characteristics of Traffic Conflicts between Electric Bicycles and Motor Vehicles at Unsignalized Intersections	2514
<i>Lu Bai, Pan Liu, Wei Wang, Yuguang Chen</i>	
Improvement of Driver Emergency Response Ability Using DirectX-Based Simulator	2525
<i>Ying Chen, Haoxue Liu</i>	
Characteristics and Prevention Countermeasures of Extraordinarily Serious Road Accidents in China	2533
<i>Jianjun Zhang</i>	
Evaluation Method of Truck Drivers' Emergency Response Capability Based on Fuzzy TOPSIS	2545
<i>Haoxue Song, Yong Zhang, Jing Ding, Zichao Ye, Yuanyuan Hong</i>	
Evaluation on Safety Maintenance at Freeway Exit Ramp	2556
<i>Gang Xiong, Qiaojun Xiang, Wenbo Zhang</i>	
Modeling Research on Drivers' Desired Speed Based on Simulating Experiment	2567
<i>Fengxiang Guo, Jian Xiong, Yanqiu Jin, Yaqin Qin, Huasen Wan</i>	
A Bi-Level Model for Identifying Critical Emergency Evacuation Facilities in Transportation Networks	2579
<i>Yang Liu, Yun Yuan, Hao Pang, Ling-Xiao Ruan</i>	
Development of Crash Prediction Model for Rear-End Collisions at Recurrent Bottlenecks on Freeways	2591
<i>Ruoyun Chen, Meihui Zhang, Zhibin Li, Wei Wang</i>	
Using Conflict Prediction Models to Evaluate the Impacts of Conflicting Volumes on Opposing Left Turn Conflicts at Signalized Intersections	2603
<i>Xin Zhang, Pan Liu, Hao Yu, Yuguang Chen</i>	
Evaluating the Impacts of Variable Speed Limits on Freeway Traffic Operations and Safety: A Case Study in Hangzhou, China	2615
<i>Hui Duan, Pan Liu, Jingjing Wan, Zhibin Li</i>	
Calculation Model of Speed Limit Value for Work Zone Sections on Freeways	2627
<i>Xue Peng, Wei-Hua Zhang, Zi-Ying Miao, Jun-Jie Chen</i>	
Analysis and Improvement of Road Black Spots in Ningbo City	2639
<i>Yu Chen, Zhong-Kun He</i>	
Influence of Snow and Ice Road on the Characteristics of Drivers' Visual Perception of Driving Speed and Distances	2650
<i>En-Hui Xing, Rui Wang, Jun Li</i>	
Variable Efficiency Appraisal in Freeway Accidents Using Artificial Neural Networks—Case Study	2657
<i>Fatemeh Bagheri Khalili, Abdolreza Sheikholeslami, Abbas Mahmoudabadi</i>	
Efficiency of Driver Identification of Pedestrians in Low Illumination	2665
<i>Zhong-Xiang Feng, Jing Liu, Wei-Hua Zhang</i>	
Identification of the Spatial and Temporal Distributions of Opposing Left-Turn Conflicts at Signalized Intersections	2673
<i>Xuan Jiang, Pan Liu, Wei Wang, Yuguang Chen</i>	

Applications of the Safety Level of Service Method in Safety Evaluations of Intersections at the Design Stage	2685
<i>Jian John Lu, He-Zheng Bi, Lin-Jun Lu, Sheng-Xue Zhu</i>	
Exploring Contributing Factors to Crash Risks under Different Level of Service	2696
<i>Chengcheng Xu, Pan Liu, Wei Wang, Xuan Jiang</i>	
Analysis on the Driver's Braking Operation under Emergency Situations	2708
<i>Xuemei Chen, Zhonghua Wei, Li Gao</i>	
Control of Human Errors and Preventing Flight Accidents: Ten Measures	2716
<i>Haitao Wang, Ben Chang, Jiasheng Zhang, Mo Wu</i>	
Adaptability Analysis of Vehicle and Technical Standard for Drop and Pull Transport	2723
<i>Xueli Zhang, Jinsong Dong, Hongwei Zhang, Chengqiang Zong</i>	
Dangerous Chemicals Logistics Warehouse Fire Risk Evaluation	2731
<i>Jing Huang</i>	
Human Factors Analysis Model of Flight Crew Members Based on Bayesian Network in China Civil Aviation Incidents	2738
<i>Yanyang Wang, Jing Li, Han Mei</i>	

Volume 4

TRANSPORTATION ENERGY SAVING AND ENVIRONMENTAL PROTECTION

Environmental Protection and Landscape Design of Freeway through a Tropical Rainforest Region	2744
<i>Li Liu, Jin-Zhi Xu</i>	
Life Cycle Analysis of Coal-Fired Power Generation in China	2754
<i>Lingjun Song, Hao Wang, Chaoshuai Liu, Hewu Wang</i>	
Study on Drivers' Refueling Behaviors Based on SEM Model	2762
<i>Jiaqing Fan, Yong Zhang, Yunjian Jiang</i>	
Capacitated Deviation-Flow Fueling Location Model for Sitting Battery Charging Stations	2771
<i>Yunjian Jiang, Yong Zhang, Cong Zhang, Jiaqing Fan</i>	
Experimental Study on Hydrogen Production by Spark Discharge Plasma Reforming of Dimethyl Ether	2779
<i>Xianghong Zhang, He Liu, Kufeng Ma</i>	
Environmental Traffic Capacity of Urban Intersection	2789
<i>Xudong Chen, Tiezhu Li, Yanming Ren</i>	
Influence of Operating Characteristics of On-Road Gasoline Passenger Car on Emissions in Nanjing, China	2801
<i>Qian Yu, Tiezhu Li, Mengting Wu, Qiuyan Chen</i>	
Design of Emergency Preplan Exercise Management Information System for URT	2813
<i>Hao Dong, Feng Li, Ruihua Xu</i>	
Research of Energy Consumption Based on Full Velocity Difference Model	2824
<i>Nan Jiang, Weihua Zhang, Xiaolong Feng</i>	
Analysis of Structural Energy-Saving Potential in Transportation Industry: A Case Study of Zhejiang Province	2832
<i>Xiaomei Xu, Yulin Chang, Jin Li</i>	
Research on the Energy Utilization Ratio of Urban Light Vehicles in China under Driving Cycle Conditions	2840
<i>Peng Zhang, Jiang-Wei Chu</i>	
Evaluation Index System Construction for Highway Tunnel Energy-Saving Lamps Based on Safety, Technology, and Economy	2849
<i>Jianjun Wang, Yue Qiu, Dan Xiong</i>	
Research on the Structure of Urban Road Network Based on the Energy Consumption and the Complex Network	2858
<i>Weihua Zhang, Bo Yang, Jieyu Zhou</i>	
Electrochemical and Thermal Coupled Modeling of High Power Lithium Ion Battery	2870
<i>Cong Zhu, Jiangyi Lv, Xinghu Li</i>	
Analysis on Resistance of Expressway Slope Vegetation to Vehicle Emissions in Northeast China	2881
<i>Shiwu Li, Jingjing Tian, Zhifa Yang, Wencai Sun, Xueqiu Zhang</i>	
Energy Saving in Bridge Engineering	2889
<i>Hongjiang Li, Yanling Leng, Ying Ma</i>	
Simulation Study on the Influence of Vehicle Structure on Fuel Economy	2900
<i>Libo Han, Cheng Zeng, Sutong Jing, Ying Shi</i>	
Research on Solar Energy LED Lighting System in Highway Tunnel	2911
<i>Feijun Zhang, Guangbin Xu, Jingyi Ji, Chaohai Wang, Xuefeng Sha</i>	
Low-Carbon Logistics: A Case Study of Deutsche Post DHL	2918
<i>Bo Dong, Manzhen Duan, Kangcheng Dong, Ying Chen</i>	
Effects of Chemical Deicers on the Growth and Vitality of Lolium perenne L.	2926
<i>Zongwei Chen, Wei Wang, Tao Liu</i>	
Potential Impacts of Different Chemical Deicing Salts on Soil Health along Roadsides	2937
<i>Wei Wang, Zongwei Chen, Tao Liu</i>	

PAVEMENT AND MATERIALS ENGINEERING AND HIGHWAY MAINTENANCE

The Application of Fuzzy Control Theory in the Frozen Earth Tunnel Construction Ventilation	2947
<i>Shao-Fang Wen, Hai-Ning Liu, Shou-Gang Huang</i>	

Effect of Bonding Condition between Asphalt Layers on Behavior of Pavement	2955
<i>Li Liu, Pei-Wen Hao</i>	
Effect of Compaction Methods and Aggregate Gradations on Air Voids Distribution in Asphalt Mixtures	2965
<i>Nai-Sheng Guo, Chong Wang, Ying-Hua Zhao</i>	
Reinforcement Effect of Broken Stone Fills under Dynamic Consolidation	2976
<i>Zhengguo Gao, Yulong Du, Yang Lai, Xin Huang</i>	
Experimental Research and Numerical Analysis of the Effects of Blasting Vibration on Young Concrete	2986
<i>Zhengguo Gao, Qingqing Zhu, Xin Huang, Xiaobo Huang</i>	
Experimental Study on Flexural Behavior of Pre-Stressed Ultra-High Performance Steel Fiber Reinforced Concrete Slab for Bridge Deck	2996
<i>Zijian Liu, Bo Diao, Chenguang Li, Mingzhe Ao</i>	
Mechanical Property Analysis of Light Railway Trough Girder Subjected to Combined Bending and Torsion	3006
<i>Zhengjian He, Yinghua Ye, Kun Shang, Quanquan Guo</i>	
Mechanical Behavior of Ultra-High Performance Concrete Reinforced with Hybrid Different Shapes of Steel Fiber	3017
<i>Yinghua Ye, Song Hu, Bo Daio, Songlin Yang, Zijian Liu</i>	
A Study of the Torsional Behavior of Reinforced Concrete Trough Girder Based on ABAQUS	3029
<i>Kun Shang, Quanquan Guo, Zhengjian He, Yinghua Ye</i>	
Computer Simulation of the Spatial Attitude of the Box-Culvert Under-pass of an Airport Taxiway	3036
<i>YanJun Yang, Junling Wei, Shuo Wang</i>	
Social Cost Analysis of Urban Underground Expressway in Construction	3043
<i>Shuo Wang, Jian-Ming Ling, Jin-Song Qian</i>	
Experimental Study on the Flame Retarding and Smoke-Suppressing Performance of Asphalt Mixture	3053
<i>Xuefeng Nan, Baigang Yu</i>	
Mechanical Evaluation of Different-Size Particles in Compacted Aggregate Structure Using Three-Dimensional Discrete Element Method	3061
<i>Jun Chen, Jingya Chen, Jiantao Wu, Yun Liu, Yongli Zhao</i>	
Setting Method of Thin-Layer Antiskid Colored Pavement in Tunnel Based on Increasing Luminance of Pavement	3073
<i>Ming Xu, Xiaodong Pan, Qi Deng</i>	
Performance Evaluation and Life Prediction on Novachip Application in Preventive Maintenance	3084
<i>Ting-Ting Ding, Li-Jun Sun, Zhang Chen</i>	
An Efficient Way in Image Preprocessing for Pavement Crack Images	3095
<i>Li Li, Li-Jun Sun, Sheng-Guang Tan, Guo-Bao Ning</i>	
Study on Application in Post-Earthquake Roads' Repairing of Crushed-Stone Grouting Pile	3104
<i>Hongsheng Qiu, Ximing Tan, Shu Shi, Xuwang Wu, Jianmei Chen</i>	
Exploration on Low-Temperature Properties of SBS Modified Asphalt for Pavement	3112
<i>Zhi-Gang Luo, Sui-Yuan Wang, Bo Diao</i>	
A Circular Track Full-Scale Testing Study on Permanent Deformation of Asphalt Pavement	3122
<i>Zhi-Gang Luo, Sui-Yuan Wang, Yan Liu</i>	
Application of GIS in Highway Maintenance Management	3132
<i>Qiu-Shi Li, Dong-Po He</i>	
Assessing the Necessity and Urgency of Traffic Safety Devices Maintenance on Rural Highways Using a Two-Stage Decision Making Method	3138
<i>Yi Zhao, Yong Fang</i>	
Influence of Contacting Friction between Tires and Pavement on Asphalt Pavement Mechanical Response	3150
<i>Yunsheng Zhu, Huijun Xiang, Xiedong Zhang, Bin Cao</i>	
Statistical Analysis of Early-Age Crack Data: Preliminary Results from Continuously Reinforced Concrete Pavements in China	3161
<i>Xiao Zhang, Xiaobin Zhu, Junmin Shen</i>	
Effects of Base Characteristics on Curling Stresses of Continuously Reinforced Concrete Pavements	3169
<i>Xiao Zhang</i>	
A Method Based on Meta-Model for Updating the Finite Element Model of Bridges Using the Measured Static and Dynamic Data	3175
<i>Yan Li, Wei Zhang, Yang Liu</i>	
Flexural Stiffness Reduction Factor of Reinforced Concrete Column with Equal L-Shaped Section	3187
<i>Jianfei Liu, Yanjun Zhang, Pengfei Luo</i>	
Analysis of Stochastic Dynamic Load Acting on Rough Road by Heavy-Duty Traffic	3194
<i>Guohe Guo, Wangfei Ding, Chunsun Zhang</i>	
Study on Repairing Material of Cement Concrete Pavement Which Is Based on Slag	3206
<i>Ming Li, Xi-Lan Zhi, Ai-Ling Yao, Xi-Ling Zhang</i>	
Study on the New Measurement Technology for Evaluating the Cracking Performance of an Airport Runway under Construction Based on Airport Pavement Operational Safety	3218
<i>Yan Liu, Zhigang Luo, Bo Diao</i>	
Discussion about Analysis Method for Particle Composition of Coarse-Grained Soil and Its Compaction Test	3228
<i>Da-Wei Huang, Peng-Fei Yue, Chong-Qing Liu, Xiao-Yi Liu</i>	
Softening Amelioration of Duncan-Chang E-B Model Based on FLAC3D	3238
<i>Hongde Wang, Tiejun Cui</i>	
Design Methods Research of Non-Motorized Transport in Intersection	3246
<i>Lu Wang, Hong Chen, Ji-Biao Zhou</i>	

Structural Inverse Conversion Analysis on Removal of Closure Segment in Prestressed Concrete Cable-Stayed Bridges	3258
<i>Hongjiang Li, Jie Liu, Ying Ma</i>	
Anchored and Statically Pressed Pile with Axial Prestress and Its Application in Uneven Settlement Treatment of Bridge Piles in Soft Soils	3270
<i>Yu Yang, Ye Ma, Xue-Feng Zhang, Chun-Xia Song, Xiao-Jiang Zhang</i>	
Laboratory Evaluation of Hot-Applied Sealant for Asphalt Pavement	3277
<i>Feng Li, Songchang Huang</i>	
Influence Analysis on Dynamic Performance of Large Span Concrete-Filled Steel Tube Arch Bridge of Relative Deck Height	3289
<i>Xiaomin Huang, Wei Zhang, Hang Sun</i>	
The Use of Reclaimed Water in the Compaction of Granular Materials	3295
<i>Hassan Mahdy, Khaled Kandil</i>	

CONTRIBUTIONS FROM OVERSEAS AUTHORS

Evaluation of Hot-Mix Asphalt Distress under Rapid Freeze-Thaw Cycles Using Image Processing Technique	3305
<i>Shu Wei Goh, Zhanping You</i>	
Discrete Element Modeling of Pavement-Wheel Frictional Force	3316
<i>Yu Liu, Zhanping You</i>	
Effect of Hydrated Lime Application Method on Mechanical and Fatigue Properties of HMA	3327
<i>Aboelkasim Diab, Zhanping You, Ayman M. Othman, Hassan Y. Ahmed</i>	
Real-Time Traffic State Estimation and Prediction for Active Traffic and Demand Management: The Application of DynaTAM	3335
<i>Md. Hadiuzzaman, Tony Z. Qiu, Yong Lin</i>	
Travel Behavior Analysis for Activity-Based Travel Demand Modeling: A Case Study of the Tampa Bay Region	3352
<i>Rong Shan, Ming Zhong, Chunyu Lu</i>	
Overview of Urban Gondolas: Implications and Opportunities for Implementation in Chinese Cities	3364
<i>Nicholas Chu</i>	
Geo-Spatial Analysis and Development of Alternative Energy Refueling Infrastructure	3373
<i>Fang Clara Fang, Nestali Torres</i>	
Developing Regional Map-Based Platform for Spatial and Temporal Assessment of Traffic Emission Inventory	3388
<i>Xiaolei Ma, Runze Yu, Yinhai Wang</i>	
Evaluation of the Master Curves for Complex Shear Modulus for Nano-Modified Asphalt Binders	3399
<i>Hui Yao, Zhanping You, Liang Li, Shu Wei Goh, Chris Dedene</i>	
Accurate Truck Activity Estimate for Roadway Link PM_{2.5} Emissions	3415
<i>Harikishan Perugu, Heng Wei, Andrew Rohne</i>	
Estimating Emission Impact of Traffic Flow Operation with Dual-Loop Data	3426
<i>Hao Liu, Heng Wei, Zhuo Yao, Qingyi Ai</i>	
Optimum Location Identification of Plug-In Electric Vehicle Charging Stations Based on Graphic Weighting	3435
<i>Ping Yi, Yudhveer Kandukuri</i>	
Clarifying Traffic Flow Phases for Vehicle Classifications Using Dual-Loop Data	3441
<i>Hao Liu, Heng Wei, Qingyi Ai, Zhixia Li, Benjamin Coifman, Haizhong Wang</i>	
Laboratory Performance Comparison of Promising Asphalt Surface Mixes	3451
<i>Qing Lu, John T. Harvey</i>	
A Methodology for Freeway Incident Duration Prediction Using Computerized Historical Database	3463
<i>Bin Yu, Zhengfeng Xia</i>	
Preliminary Study of Materials Effect of Cold In-Place and Full-Depth Reclamation Asphalt Concrete in Mechanistic-Empirical Pavement Design	3475
<i>Zhanping You, Xu Yang, Hui Yao, Shu Wei Goh</i>	
Determining Progression Adjustment Factor and Upstream Filtering Adjustment Factor at Signalized Intersections	3486
<i>Ning Wu</i>	
An Investigation of the Relationship between Speed Characteristics and Collision Rate for Urban Freeway	3498
<i>Md. Tazul Islam, Md. Hadiuzzaman, Luo Ying, Tony Z. Qiu, Karim El-Basyouny</i>	
Comparisons of Probabilistic Models Based on AASHO Road Test Data	3507
<i>Zheng Li</i>	
Frequency Analysis of Bridge Condition Explanatory Data Items for Customized Data Collection and Bridge Management	3519
<i>Pingbo Tang, Omar Kanaan, Junhui Wang, Jun-Seok Oh, Valerian Kwigizile</i>	
Integrating an Agent-Based Travel Behavior Model with Large-Scale Microscopic Traffic Simulation for Corridor-Level and Sub-Area Transportation Operations and Planning Applications	3532
<i>Lei Zhang, Gang-Len Chang, Shanjiang Zhu, Chenfeng Xiong, Longyuan Du, Mostafa Mollanejad, Nathan Hopper, Subrat Mahapatra</i>	
Numerical Examinations of Traffic Accident Characteristics Using Analytical Statistical Methods	3546
<i>Guohui Zhang, Jianyang Zheng, Yinhai Wang</i>	
Game Theoretic Approach over a Hazardous Material Transportation Network	3558
<i>Wenxin Qiao, Yang Lu, Ali Haghani</i>	

Modeling Combined Safety and Operational Effect of Detection Solution to Signal Dilemma Zone Problems	3570
<i>Zhixia Li, Heng Wei, Hui Xiong</i>	
Quantifying the Self-Selection Effect in Residential Location and Vehicle Use Choices with a Structural Equation Model	3581
<i>Xiang He, Lei Zhang</i>	
Challenges in Vehicle Classification	3593
<i>Xin Yu, Panos Prevedouros, Goro Suljoadikusumo</i>	
Strategic Considerations for Low-Speed Transportation Systems in Urban Street Network in Megacities in China	3606
<i>Jian Lu, Shengdi Chen</i>	
Framework for Integrating Traffic-Source Emission Estimates into Sustainability Analysis	3612
<i>Heng Wei, Xinhao Wang, Zhuo Yao, Hao Liu, Shuang Liang, Y. Jeffrey Yang</i>	
A Case Study of Active Traffic Control: Improving Efficiency of the Traffic Operations Using Ramp Metering System	3620
<i>Jie Fang, Dan Zhang, Peter Jin, Zhijun Qiu, Bin Ran</i>	
Investigation of Fatal Crash Downturn from 2005 to 2009 in the U.S.	3633
<i>Yiwei Zhou, Xiaokun Wang</i>	
Household Travel Analysis Using Bayesian Negative Binomial Models	3642
<i>Dapeng Zhang, Xiaokun (Cara) Wang</i>	
Long-Run Elasticity of Demand for Passenger Car Travel with Respect to Highway Tolls and Gasoline Prices for Long Distance Trips	3649
<i>Yu Zhang, Richard Marshment</i>	
Correlation of Transportation Variables on Pollutant Emissions on Selected Buses and Trains in China	3659
<i>Mingming Lu, Heng Wei, Shalini Dasigi, Karteek Kumar Allam</i>	
Author Index	