

SAE International Journal of Passenger Cars — Mechanical Systems Table of Contents

Experimental and CFD Analysis of Tire Cooling Sidewall (2008-01-0148)	1
Masashi Yamaguchi, Makoto Tsuruta, and Kenshiro Kato	
Reducing Tire Rolling Resistance to Save Fuel and Lower Emissions (2008-01-0154)	9
Jerome Barrand and Jason Bokar	
Rollover Crash Tests on Dirt: An Examination of Rollover Dynamics (2008-01-0156)	18
Peter A. Luepke, Jarrod W. Carter, Kevin C. Henry, Geoff J. Germane, and James W. Smith	
Motorcycle Rider Trajectory in Pitch-Over Brake Applications and Impacts (2008-01-0164)	31
Todd A. Frank, James W. Smith, Dana C. Hansen, and Stephen M. Werner	
Occupant Ejection Trajectories in Rollover Crashes: Full-Scale Testing and Real-World Cases (2008-01-0166)	43
James R. Funk, Gray Beauchamp, Nathan A. Rose, Stephen J. Fenton, and Janine Pierce	
Glass Debris in Rollover Accidents (2008-01-0167)	55
T. R. Perl, J. E. Bready, R. P. Nordhagen, and M. H. Warner	
Crash Pulse and DeltaV Comparisons in a Series of Crash Tests with Similar Damage (BEV, EES) (2008-01-0168)	60
Ronald L. Woolley and Alan F. Asay	
Rollover Dynamics: An Exploration of the Fundamentals (2008-01-0172)	80
Jarrod W. Carter, Peter Luepke, Kevin C. Henry, Geoff J. Germane, and James W. Smith	
Analysis of Vehicle-to-Ground Impacts During a Rollover with an Impulse-Momentum Impact Model (2008-01-0178)	105
Nathan A. Rose, Stephen J. Fenton, Gray Beauchamp, and Robert W. McCoy	
Modelling of Truck-Car Sideswipe Collisions Using Lug Patterns (2008-01-0179)	124
Michael S. Varat, Stein E. Husher, John F. Kerkhoff, Christopher D. Armstrong, and John C. Steiner	
HIC(d) and Its Relation With Headform Rotational Acceleration in Vehicle Upper Interior Head Impact Safety Assessment (2008-01-0186)	142
Anindya Deb, Umesh Biswas, and Clifford C. Chou	
CFD Design Tool Improves HVAC Design and Cuts Product Development Cycle Time (2008-01-0238)	150
Meisen Li and LinJie Huang	
Development of a Numerical Simulation Tool for the Cooling of Batteries (2008-01-0239)	156
Thorsten J. Möller, Ruben Stahlbaum, Choopong Sereecharoenkij, and Rolf Radespiel	
CAE Virtual Durability Tests of Automotive Products in the Frequency Domain (2008-01-0240)	165
Hong Su	

Parameter Design Based FEA Correlation Studies on Automotive Seat Structures (2008-01-0241)	175
Radesh Vangipuram, Luohui Long, Hai Truong, Daniel Ferretti, and Joseph Talamonti	
Numerical Analysis of Initial Shape of Nozzle Inject Flow (2008-01-0243)	184
Qinyin Fan, Chenhai Guo, Kikuo Narumiya, and Hiroshi Hattori	
Open Chain Systems Based on Oriented Graph-Matroid Theory (2008-01-0245)	189
Ilie Talpasanu and Pilaka Murty	
Prediction Snow Ingress into Air Intake System (2008-01-0249)	200
Akio Takamura and Isao Saito	
Evaluation Method for Pressure Loss using Energy Dissipation (2008-01-0250)	208
Keiji Komura, Kazuhiko Murai, Akihiro Yoshikawa, Yosuke Ueno, M. K. Ibrahim, and Yoshiaki Nakamura	
Vehicle Fire Deaths Resulting from Fires Not Caused by Collisions or Overturns: How Do They Differ from Collision Fire Deaths? (2008-01-0257)	215
Marty Ahrens	
How NHTSA Would Analyze the Costs and Benefits of Fire Safety (2008-01-0258)	227
James F. Simons	
Design Definition and Manufacturing of the Superbus (2008-01-0260)	231
Antonia Terzi, Valeria Antonelli, and Wubbo Ockels	
Dynamic Behavior of Segmented Telescoping Structures in Automotive Systems (2008-01-0263)	238
Lubov P. Andrusiv, Glen Prater, Jr., and Christopher M. Richards	
Noise Quality Analysis and Metrics Development under Transient Shifting Condition (2008-01-0271)	250
Jian Wang, Yulong Lei, Anlin Ge, and Xintian Lu	
Accelerated and Integrated Real Time Testing Process Based on Two Universal Controllers on Rapid Controller Prototyping (2008-01-0285)	258
Zhenchun Xia, Feng Gao, Kazuhide Togai, and Hiroki Yamaura	
Superelement, Component Mode Synthesis, and Automated Multilevel Substructuring for Rapid Vehicle Development (2008-01-0287)	268
Mallikarjuna Bennur	
Development of a Compact Torque Vectoring Axle for Primary or Secondary Axles (2008-01-0305)	280
Dan Showalter	
Developing Mode Shift Strategies for a Two-Mode Hybrid Powertrain with Fixed Gears (2008-01-0307)	285
Kukhyun Ahn and Suk Won Cha	
GLORIA: Design and Development of a Calibration Jig for H-Point Machines Used for the Measurement of Head Restraint Geometry (2008-01-0348)	293
Matthew Avery, David Zuby, John Gane, and Mark Cox	

A Method to Quantify Vehicle Dynamics and Deformation for Vehicle Rollover Tests Using Camera-Matching Video Analysis (2008-01-0350)	301
Nathan A. Rose, William T. C. Neale, Stephen J. Fenton, David Hessel, Robert W. McCoy, and Clifford C. Chou	
A Method for Determining the Vehicle-to-Ground Contact Load during Laboratory-based Rollover Tests (2008-01-0351)	318
Clifford C. Chou, Jingwen Hu, King H. Yang, and Albert I. King	
Thermal Response and Flammability of Li-Ion Cells for HEV and PHEV Applications (2008-01-0400)	326
E. Peter Roth	
Effects of On-Road Turbulence on Vehicle Surface Pressures in the A-Pillar Region (2008-01-0474)	333
Andrew A. Lawson, David B. Sims-Williams, and Robert G. Dominy	
On-road Turbulence (2008-01-0475)	341
Scott Wordley and Jeff Saunders	
An Approach to Model Sheet Failure After Onset of Localized Necking in Industrial High Strength Steel Stamping and Crash Simulations (2008-01-0503)	361
Lutz Kessler, Helmut Gese, Guido Metzmacher, and Heinrich Werner	
A Study of the Rear Seat Occupant Safety using a 10-Year-Old Child Dummy in the New Car Assessment Program (2008-01-0511)	371
Seong-Woo Hong, Chung-Kyu Park, Richard M. Morgan, Cing-Dao Kan, Shinhee Park, and Hanil Bae	
The Hybrid III Dummy Family Subject to Loading by a Motorized Shoulder Belt Tensioner (2008-01-0516)	383
Craig A. Good, David C. Viano, and Janet L. Ronsky	
Occupant Trajectory Model using Case-Specific Accident Reconstruction Data for Vehicle Position, Roll, and Yaw (2008-01-0517)	396
Chad B. Hovey, Matthew L. Kaplan, and Robert L. Piziali	
A Frontal Impact Taxonomy for USA Field Data (2008-01-0526)	406
Kaye Sullivan, Scott Henry, and Tony R. Laituri	
Two-Degree-of-Freedom Controller Design for Clutch Slip Control of Automatic Transmission (2008-01-0537)	430
Bingzhao Gao, Hong Chen, and Kazushi Sanada	
Oxygenated Fuel Considerations for In-Shop Fuel System Leak Testing Hazards (2008-01-0554)	439
K. M. Frank and M. D. Checkel	
Characterization of the Lateral Control Performance by Human Drivers on Highways (2008-01-0561)	450
Jing Zhou, Huei Peng, and Timothy J. Gordon	
Numerical Simulation of Vehicle Motion including Non-Holonomic Constraints by Extended Baumgarte's Method (2008-01-0578)	459
Takashi Maruyama, Shunsuke Muroi, Masaaki Kanai, and Hiroshi Tokunaga	

Ride Comfort Evaluation through Analysis of Roll and Lateral Vehicle Behaviors Due to Road Input (2008-01-0581)	472
Shingo Koumura and Tsuyoshi Ohkita	
Application of Adaptive Kalman Filter for Estimation of Power Train Variables (2008-01-0585)	480
Danijel Pavković, Joško Deur, Ilya Kolmanovsky, and Davor Hrovat	
Analysis of Lateral Dynamics and Ride Performance of the Superbus (2008-01-0586)	492
Steve van Herk, Antonia Terzi, and Wubbo Ockels	
Vehicle Dynamics Simulation for Predicting Steering Power-Off Limit Performance (2008-01-0587)	498
Jinghong Yu and Michael Johnson	
The Influence of Direct Yaw Control AWD Systems on Vehicle Stability and Response in All Driving Conditions (2008-01-0591)	504
Bill Post, Xiaodi Kang, and Theodore Klaus	
Brake Based Torque Vectoring for Sport Vehicle Performance Improvement (2008-01-0596)	514
Leonidas Kakalis, Andrea Zorzutti, Federico Cheli, and Gian Claudio Travaglio	
Vehicle Coast Analysis: Typical SUV Characteristics (2008-01-0598)	526
Ashley L. (Al) Dunn, Gregory D. Uhlenhake, Dennis A. Guenther, Gary J. Heydinger, and Grant J. Heydinger	
Robust Optimal Design for Enhancing Vehicle Handling Performance (2008-01-0600)	536
Yunqing Zhang, Chaoyong Tang, Wei Chen, Liping Chen, and Jingzhou Yang	
The Influence of Motion Aerodynamics on the Simulation of Vehicle Dynamics (2008-01-0657)	545
Peter Aschwanden, Jürg Müller, Gian Claudio Travaglio, and Timo Schöning	
The Aerodynamic Characteristics of a Race Car Wing Operating in a Wake (2008-01-0658)	552
Michael R. Wilson, Robert G. Dominy, and Adam Straker	
Reducing Power Demand for Heavy Suspension Tests (2008-01-0690)	560
Steven R. Haeg	
Test Rig for Characterization of Automotive Suspension Systems (2008-01-0692)	568
Massimiliano Gobbi, Paolo Guarneri, Gianpiero Mastinu, and Gianpiero Rocca	
Finite Element Modelling of Composite Hydrogen Cylinders in Localized Flame Impingements (2008-01-0723)	577
J. Hu, J. Chen, K. Chandrashekhara, and William Chernicoff	
Investigation of the Allowable Flow Rate of Hydrogen Leakage on Receptacle (2008-01-0724)	590
Masashi Takahashi, Yohsuke Tamura, Jinji Suzuki, and Shogo Watanabe	
Developing Safety Standards for FCVs and Hydrogen Vehicles (2008-01-0725)	598
Glenn W. Scheffler, Jake DeVaal, Gery J. Kissel, Jesse Schneider, Michael Veenstra, Tommy Chang, Naoki Kinoshita, George Nicols, and Hajime Fukumoto	
Flame Quenching Limits of Hydrogen Leaks (2008-01-0726)	605
M. S. Butler, R. L. Axelbaum, C. W. Moran, and P. B. Sunderland	

Hydrogen Concentration Distribution in Simulated Spaces for a Hydrogen System Installed in a Large Bus in Case of Hydrogen Leakage (2008-01-0727)	613
Hideki Matsumura, Kenji Murooka, Kuzuo Matsushima, and Tetsuo Taniguchi	
Ventilation Characteristics of Modeled Compact Car Part 2: Estimation of Local Ventilation Efficiency and Inhaled Air Quality (2008-01-0731)	623
Hideaki Nagano, Shengwei Zhu, Yoshiichi Ozeki, Shinsuke Kato, Kazuhiko Matsunaga, and Takuya Kataoka	
Ventilation Characteristics of Modeled Compact Car Part 1: Airflow Velocity Measurement with PIV (2008-01-0732)	631
Yoshiichi Ozeki, Jeong-Hoon Yang, Hideaki Nagano, Shinsuke Kato, Eiji Nomura, Minoru Inoue, and Shin Kobayashi	
Ejector-Type Cool Box (2008-01-0734)	640
Hiroshi Oshitani, Mika Gocho, and Yoshiaki Takano	
Numerical and Experimental Analysis of Unsteady Separated Flow behind an Oscillating Car Model (2008-01-0738)	646
Emmanuel Guilmineau and Francis Chometon	
Preliminary Evaluation Methodology in Front-Front Vehicle Compatibility (2008-01-0814)	658
John C. Brewer and David L. Smith	
Relationship between Frontal Stiffness and Occupant Compartment Intrusion in Frontal Crash Tests (2008-01-0815)	667
James Saunders, Alexander Strashny, and Chris Wiacek	
Development of a Test Method to Evaluate both Stiffness and Interaction of Compatibility Performance (2008-01-0816)	679
Takashi Hasegawa and Toshiya Kudoh	
Brake System and Subsystem Design Considerations for Race Track and High Energy Usage Based on Fade Limits (2008-01-0817)	689
David Antanaitis, Patrick Monsere, and Mark Riefe	
“Sticky” Lining—The Phenomena, Mechanism and Prevention (2008-01-0819)	709
YJ (Yanjun) Huang, Xinyu Wen, and Yulong Zhu	
Pneumatic Brake Apply System Response and Aero-Acoustic Performance Considerations (2008-01-0821)	716
David Antanaitis, Dyan Martins, Patrick Monsere, and Mark Riefe	
A Study on the Effect of Brake Assist Systems (BAS) (2008-01-0824)	729
Toshiya Hirose, Tetsuo Taniguchi, Tadashi Hatano, Kunio Takahashi, and Nobuhisa Tanaka	
The Measurement and Analysis of the Disc/Pad Interface Dynamic Centre of Pressure and Its Influence on Brake Noise (2008-01-0826)	736
John D. Fieldhouse, Naveed Ashraf, and Chris Talbot	
GREEN-MAC-LCCP®: A Tool for Assessing Life Cycle Greenhouse Emissions of Alternative Refrigerants (2008-01-0828)	746
Stella Papasavva, William R. Hill, and Ryan O. Brown	

Field Tests to Monitor Build-up of Carbon Dioxide in Vehicle Cabin with AC System Operating in Recirculation Mode for Improving Cabin IAQ and Safety (2008-01-0829)	757
Gursaran D. Mathur	
Disc Pressure Effects on the Spine, Influenced by Extra Equipment and a Massage System in Car Seats (2008-01-0888)	768
Matthias Franz, Raphael Zenk, Alexander Durt, and Peter Vink	
Emocard—An Approach to Bring More Emotion in the Comfort Concept (2008-01-0890)	775
Raphael Zenk, Matthias Franz, and Heiner Bubb	
Acoustic Attenuation Performance Analysis of Three-pass Perforated Tube Muffler with End-resonator (2008-01-0894)	783
Zhenlin Ji, Shengli Su, and Chen Liu	
Development of Exhaust Sound Quality on Aston Martin V8 Vantage (2008-01-0895)	792
P. Hiscutt and S. Ishikawa	
Real-Time Crank-Resolved Engine Simulation for Testing New Engine Management Systems (2008-01-1006)	801
GianCarlo Pacitti, Steven Amphlett, Peter Miller, Robert Norris, and Anthony Truscott	
Cylinder Balancing Based on Reconstructed Engine Torque for Vehicles Fitted with a Dual Mass Flywheel (DMF) (2008-01-1019)	810
Andreas Walter, Christian Lingenfelter, Uwe Kiencke, Stephen Jones, and Thomas Winkler	
An Applied Approach for Large-Scale Multibody Dynamics Simulation and Machine-Terrain Interaction (2008-01-1101)	820
Mohamed A. Omar	
A Study on Fracture Characteristics of Plastics and Application to Head Impact Simulation for Instrument Panels (2008-01-1116)	829
Kangwook Lee, Taejung Yeo, Soonjo Park, Helmut Arnulf Gese, and Harry Dell	
Implementation of Child Biomechanical Neck Behavior into the Hybrid III Crash Test Dummy (2008-01-1120)	835
Miroslav Tot, Tanya Kapoor, William Altenhof, Wayne Marino, and Andrew Howard	
Finite Element Modelling of Rollover Crash Tests with Hybrid III Dummies (2008-01-1123)	846
Keith Friedman, John Hutchinson, and Dennis Mihora	
Property Analysis of an X-Coupled Suspension for Sport Utility Vehicles (2008-01-1149)	853
Dongpu Cao, Subhash Rakheja, and Chun-Yi Su	
How to Play a Disc Brake: A Dissipation-Induced Squeal (2008-01-1160)	863
Oleg N. Kirillov	
Optimizing the Cooling Effects of Fins with Slits on an Air-Cooled Cylinder by Increasing Natural Convection (2008-01-1170)	877
Kohei Nakashima, Takuya Toda, Soichi Ishihara, and Masago Yamamoto	
Boundary Interference of High Blockage Models in Open Jet Test Sections (2008-01-1201)	883
Wael A. Mokhtar and Colin P. Britcher	

Theoretical/Experimental Study on the Vibrations of a Car Engine (2008-01-1211)	896
Luis E. Muñoz, Massimiliano Gobbi, Giampiero Mastinu, and Mario Pennati	
Virtual Rig Simulation in the Exhaust System Development (2008-01-1215)	909
Fulun Yang, Jason Hamilton, and Henry Cheng	
Effect of Operational Testing and Trim Manufacturing Process Variation on Head Injury Criterion in FMVSS 201 Tests (2008-01-1218)	913
Waseem Jaradat, Joseph Hassan, Guy Nusholtz, Khalil Taraman, and Sanaa Taraman	
Stability and Control Considerations of Vehicle-Trailer Combination (2008-01-1228)	925
Aleksander Hac, Daniel Fulk, and Hsien Chen	
A Computational Study of Rear-Facing and Forward-Facing Child Restraints (2008-01-1233)	938
Robert G. Kendall, Christopher P. Sherwood, and Jeff R. Crandall	
Validation of an FE Lower Limb Model for a Child Pedestrian by Means of Accident Reconstruction (2008-01-1240)	971
O. Ito, M. Okamoto, Y. Takahashi, and F. Mori	
Pedestrian Lower Extremity Response and Injury: A Small Sedan Versus A Large Sport Utility Vehicle (2008-01-1245)	985
Jason Kerrigan, Damien Subit, Costin Untaroiu, and Jeff Crandall, and Rodney Rudd	
Developing a Transfer Function for Vehicle Ride Performance (2008-01-1280)	1003
Mohamed Nasser and Badih Jawad	
Analysis of Tensioner Induced Coupling in Serpentine Belt Drive Systems (2008-01-1371)	1009
R. P. Neward and S. Boedo	
Terrain Profile Estimation for use in Suspension Simulation Testing (2008-01-1414)	1018
Dave Fricke and Kevin R. Kefauver	
Longitudinal Interfacial Forces of the Interaction of a Treaded Tire with Snow (2008-01-1415)	1030
Jonah H. Lee	
Thermal Modelling of Power Steering System Performance (2008-01-1432)	1039
Timothy C. Scott and Jason Uphold	
Computer Simulation of Automotive Air Conditioning—Components, System, and Vehicle: Part 2 (2008-01-1433)	1045
Timothy C. Scott, Dhananjay S. Joshi, and Frank Chianese	
Various Impacting factors on a Radiator Top Tank Temperature (2008-01-1438)	1052
Ying Tang, Nicolas Grall, and John Savage	
Active Roll and Stability Control (2008-01-1457)	1060
Jing Shen Tang	
Functional Mobility Testing: A Novel Method to Create Suit Design Requirements (2008-01-1857)	1071
Scott A. England, Elizabeth A. Benson, and Sudhakar L. Rajulu	

Challenge of Lumbar Support Design Using Human Body Models (2008-01-1860)	1078
Hyung Yun Choi, Kyung Min Kim, Chi Ho Kim, Sungjin Sah, Seok-Hwan Kim, Su-Hwan Hwang, Kwang-Noh Lee, Jong-Kweon Pyun, Nicole Montmayeur, and Inhyeok Lee	
Development of a Detailed Buttock and Thigh Muscle Model for the Dynamic Occupant Model CASIMIR (2008-01-1864)	1085
Alexander Siefert, Steffen Pankoke, and Ralph Blüthner	
Validation of a Human Body Model for Frontal Crash and its Use for Chest Injury Prediction (2008-01-1868)	1094
Bengt Pipkorn and Krystoffer Mroz	
Studying Visibility as a Constraint and as an Objective for Posture Prediction (2008-01-1875)	1118
Brian Lewis Smith, Tim Marler, and Karim Abdel-Malek	
Posture Maintenance of the Human Upper Extremity; Identification of Intrinsic and Reflex Based Contributions (2008-01-1888)	1125
Riender Happee, Erwin De Vlugt, and Alfred C. Schouten	
Postural Behaviors during One-Hand Force Exertions (2008-01-1915)	1136
Suzanne G. Hoffman, Matthew P. Reed, and Don B. Chaffin	
Truck Instep Evaluation Using a Sample of Manikins (2008-01-1920)	1143
Adrien Chamero, Gilles Monnier, and Christophe Roybin	
Impact and Injury Response of Long Track Speed Skaters (2008-01-1923)	1149
Patrick A. Forbes, Frank Swartjes, Ronald Ruimerman, and John Willems	
The Use of Physical Props in Motion Capture Studies (2008-01-1928)	1163
Monica L. H. Jones, Jim Chiang, Allison Stephens, and Jim R. Potvin	
A Novel Measurement of Dynamic Friction (2008-01-2536)	1172
S. K. Wang and J. Woodhouse	
Sacrificial Shield for the Wheel Hub Bearing Flange to Maintain Low Brake Rotor Lateral Runout (2008-01-2548)	1181
Cengiz Shevket, Xiao Bo Zhou, and Henk Kapaan	
Vibro-Impact Rotor Dampers For Brake Squeal Attenuation—Towards An Insulator Free Design To Quell Squeal (2008-01-2549)	1188
Ramana V. Kappagantu	
Combined Experimental and CFD Investigation of Brake Discs Aero-thermal Performances (2008-01-2550)	1194
G. Barigozzi, A. Perdichizzi, and M. Donati	
Dynamic Vehicle Weight Reduction and Safety Enhancement (2008-01-2551)	1202
Peter Strom	
Optimal Robust Design Optimization with Application to a Piezoelectric Brake (2008-01-2554)	1208
Massimiliano Gobbi, Paolo Guarneri, and Gianpiero Mastinu	
Design and Testing of a New Electric Parking Brake Actuator (2008-01-2555)	1217
Chien-Tai. Huang, Chien-Tzu Chen, Shou-Yi Cheng, Bo-Ruei Chen, and Ming-Hu Huang	

The Effect of Wear Groove on Vibration and Noise of Aircraft Brakes: Theoretical and Experimental Evidence (2008-01-2557)	1223
K. Farhang, S. Ozcan, and P. Filip	
Thermo-Mechanical Contact Analysis of Car Disc Brake Squeal (2008-01-2566)	1230
Muhammad Zahir Hassan, Peter C. Brooks, and David C. Barton	
An Experimental Methodology to Determine the Low Energy Wear Model (2008-01-2573)	1240
Eric J. Schroeder and Walt Stringham	
Resonant Inspection Applied to 100% Testing of Nodularity of Cast Ductile Iron (2008-01-2577)	1247
Richard W. Bono and Gail R. Stultz	
On Tangential Friction Induced Vibrations in Brake Systems (2008-01-2580)	1251
G.-P. Ostermeyer	
Modelling of Friction Evolution and Assessment of Impacts on Vibration Excitation at the Pad-Disc Interface (2008-01-2582)	1258
W. Österle, H. Kloß, and A. I. Dmitriev	
Interactions between Third-Body Flows and Localization Phenomena during Railway High-Energy Stop Braking (2008-01-2583)	1267
Yannick Desplanques and Gérard Degallaix	
Brake Squeal Analysis: A New Method for Predicting Limit Cycles Using the Constrained Harmonic Balance Method (2008-01-2585)	1276
N. Coudeyras, S. Nacivet, and J.-J. Sinou	
Constructing Equations of Motion for a Vehicle Rigid Body Model (2008-01-2751)	1289
Yucheng Liu	
Application of System Identification for Efficient Suspension Tuning in High-Performance Vehicles: Quarter-Car Study (2008-01-2962)	1298
Chris Boggs, Mehdi Ahmadian, and Steve Southward	
Application of the ‘Optimal Maneuver Method’ for Enhancing Racing Motorcycle Performance (2008-01-2965)	1311
Bobbo Simon, Cossalter Vittore, Massaro Matteo, and Peretto Martino	
Comparison of the Performance of 7-Post and 8-Post Dynamic Shaker Rigs for Vehicle Dynamics Studies (2008-01-2966)	1319
Steve C. Southward and Christopher M. Boggs	
Virtual Motorsports as a Vehicle Dynamics Teaching Tool (2008-01-2967)	1325
R. Rieveley and B. Minaker	
Crash Recorders in Racing—An Overview (2008-01-2972)	1334
Tom Gideon and John W. Melvin	
Stock Car Racing Driver Restraint—Development and Implementation of Seat Performance Specification (2008-01-2974)	1349
John P. Patalak and John W. Melvin	

Determination of the Pressure Distribution Beneath Two- and Three-Inch-Wide Racing Safety Belts (2008-01-2977)	1356
John W. Melvin, Paul C. Begeman, and Thomas Gideon	
Improving Earpiece Accelerometer Coupling to the Head (2008-01-2978)	1367
Robert S. Salzar, Cameron R. 'Dale' Bass, and Joseph A. Pelletiere	
Vertical Impact to an Open Wheel Race Car and Development of a Crash Test to Simulate Driver Response (2008-01-2981)	1382
Jeff Horton, Terry R. Trammell, and James R. Chinni	
Racecar Front Wing Aerodynamics (2008-01-2988)	1392
Wael A. Mokhtar and Jonathan Lane	
The use of a Bluff Body Wake Generator for Wind Tunnel Studies of NASCAR Drafting Aerodynamics (2008-01-2990)	1404
Roger G. Dominy, and Geoff LeGood	