SAE Vehicle Dynamics Technology Collection: Technical Papers

11th Annual SAE Brake Colloquium and Engineering Display
933070 Title: RTV—A friction material designers view
933071 Title: Practical evaluation and FEM-modelling of a squealing disc brake
933072 Title: Geometric induced instability in drum brakes

14th Annual Brake Colloquium and Engineering Display
962128 Title: Experimental analysis of low-frequency brake squeal noise

962130 Title: Development of correlation between experimental and analytical modal analysis of brake pads

17th Annual Brake Colloquium and Engineering Display
1999-01-3400 Title: Disc brake corner system modeling and simulation
1999-01-3403 Title: A proposal to predict the noise frequency of a disc brake based on the friction pair interface geometry
1999-01-3405 Title: Global NVH matrix for brake noise—A Bosch proposal
1999-01-3407 Title: Prediction of damping treatment dynamics as bonded to a brake shoe and lining
1999-01-3408 Title: An experimental investigation of disk brake creep-groan in vehicles and brake dynamometer correlation
1999-01-3410 Title: Calculation of average coefficient of friction during braking

18th Annual Brake Colloquium and Engineering Display
2000-01-2753 Title: Dynamic modeling of brake friction coefficients
2000-01-2760 Title: Ultra Q™process
2000-01-2763 Title: Cost-effective Aluminium MMC brake discs
2000-01-2764 Title: Modal participation analysis for identifying brake squeal mechanism
2000-01-2765 Title: On the analysis of brake squeal propensity using finite element method
2000-01-2766 Title: The effect of distributed parameters examined in a model for simulation of disc brake squeal
2000-01-2767 Title: Numerical simulation to detect low-frequency squeal propensity
2000-01-2769 Title: Brake moan simulation using flexible methods in multibody dynamics
2000-01-2770 Title: Generating 3-dimensional animations of vehicle brake noise
2000-01-2771 Title: A visual experimental noise investigation of a twin calliper disc brake
2000-01-2772 Title: New techniques and applications for 3D-brake vibration analysis
2000-01-2773 Title: In-plane mode/friction process and their contribution to disc brake squeal at high frequency
2000-01-2774 Title: The integrated test concept: Dyno - vehicle, performance - noise
2000-01-2775  Title: Thermomechanical analysis of friction brakes
2000-01-2778  Title: Experimental investigations of disc brake friction
18th Annual Earthmoving Industry Conference 670283  Title: Vehicle braking systems can be safer
2000 Future Car Congress 2000-01-1577  Title: Improving the aerodynamic stability of a practical, low-drag, aero-stable vehicle
2000-01-1578  Title: An integrated study of the Ford PRODIGY aerodynamics using computational fluid dynamics with experimental support
2000-01-1579  Title: Numerical investigation of vehicles aerodynamics through driving tunnels
22nd Annual Earthmoving Industry Conference 710526  Title: Determination of wheel loader static and dynamic stability
710527  Title: Stability analysis of an articulated vehicle steering system
710530  Title: Steering and braking systems on the articulated motor grader
22nd FISITA Congress 885106  Title: Anti-spin control
29th Annual Earthmoving Industry Conference 780462  Title: The development of a scraper suspension system
2nd International Conference on Vehicle Structural Mechanics 770594  Title: System modeling techniques to improve the ride and vibration isolation characteristics of heavy equipment
32nd Annual Earthmoving Industry Conference 810696  Title: Design considerations for wet wheel brakes
37th Annual Earthmoving Industry Conference 860770  Title: Ten years experience with brake testing of large mining trucks in British Columbia
39th Annual Earthmoving Industry Conference 880799  Title: Active suspension
3rd International Conference on Vehicle Structural Mechanics 790976  Title: A finite element solution for the coupled dynamic interaction behavior of a flexible vehicle traveling on a flexible guideway
3rd International Pacific Conference on Automotive Engineering 852326  Title: ABS—highly flexible modular system for commercial vehicles
852331  Title: Load and/or speed sensing power steering for medium and heavy trucks
852335  Title: Steering response of articulated vehicles in steady-state turns
852344  Title: Controlled load transfer during braking on a four-spring trailer suspension
Title: Neway AR-90 trailer air suspension
852346

Title: Optimization of power steering "road feel" for highway tractors
852360

48th Earthmoving Industry Conference and Exposition

Title: A hybrid approach to ground speed control of large wheel loaders with engine at full throttle
971562

4th International Pacific Conference on Automotive Engineering

Title: New generation foundation brake developments
871247

5th International Exposition on Vehicular Structural Mechanics

Title: Computer simulation of nonlinear vehicle response to generalized road inputs at Ford light truck
840739

Title: Pneumatic damping of vehicle tires to improve ride quality
840746

8th Annual SAE Brake Colloquium and Educational Display

Title: Low speed plate brake tester
901701

9th Annual SAE Brake Colloquium and Engineering Display

Title: Dynamical behaviour of the disc brake pad
912656

Aerospace Technology Conference and Exposition

Title: Wind tunnel and track testing an ARCA race car
901867

Aerotech’93

Title: Modelling aerodynamic problems using smoothered particle hydrodynamics (SPH)
932512

Automobile Engineering Meeting

Title: The handling properties of light trucks
760710

Title: Cornering compliance applied to dynamics of rolling vehicles
760711

Title: The static directional stability and control of the automobile
760712

Title: The cornering compliance concept for description of vehicle directional control properties
760713

Automotive and Transportation Technology Congress and Exhibition

Title: Investigation of car stability in crash simulations
2001-01-3167

Title: Development of HILS system for ABS ECU of commercial vehicles
2001-01-3186

Title: Robust adaptive stabilization of moving a car under braking with ABS in control circuit
2001-01-3187

Title: Caravan active braking system—Effective stabilization of snaking of combination vehicles
2001-01-3188

Title: The kinetic brake booster
2001-01-3189

Title: Dynamometer simulation study for market brake judder
2001-01-3191
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<td>Virtual proving ground environment for designing a roll-over detection and warning system</td>
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<td>2001-01-3212</td>
<td>Title: Three-dimensional dynamic model for a quick simulation of vehicle collisions</td>
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<td>Title: Adaptive cruise control system using CVT gear ratio control</td>
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<td>Title: Polytopic dynamics and control for variable suspension system</td>
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<td>Title: Hybrid control of a semi-active suspension system</td>
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<td>Title: Semi-active steering wheel for steer-by-wire system</td>
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<td>Title: Sliding mode path tracking control for automatic steering of vehicles</td>
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<td>Title: Non-linear neuro control for active steering for various road conditions</td>
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<td>Title: Advances and challenges in BBW AWB dispersion for future automotive vehicles</td>
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<td>Title: Robust controller design for automatic steering of vehicles</td>
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<td>Title: A neural network approximation of nonlinear car model using Adams simulation results using Adams simulation results</td>
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<td>Title: A numerical model to analyze the dynamic response of a vehicle to variations in torque transmitted by the drive-line</td>
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<td>Title: Low tire pressure warning system using sensor fusion</td>
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<td>Title: About interrelation between the tire grip properties and the wheel sliding</td>
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**Automotive Engineering Congress and Exposition**

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<td>Engineering approach to truck-trailer train stability</td>
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<td>670022</td>
<td>Title: Load-deflection characteristics of vehicle suspension systems</td>
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<td>670065</td>
<td>Title: Development of Ford GT sports-racing car, covering engine, body, transaxle, fuel system, suspension, steering, and brakes</td>
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<td>670070</td>
<td>Title: Ford Mark II GT sports car disc brake system</td>
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<td>Title: Directional control dynamics of automobile-travel trailer combinations</td>
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<td>Title: Aerodynamic characteristics of a car-trailer combination</td>
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<td>680017</td>
<td>Title: Effect of recent changes in brake regulations on brake design</td>
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<td>680018</td>
<td>Title: Development of Ford disc brake, which is power brake option on all 1968 Ford-built cars</td>
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<td>Title: Design of off-the-road vehicles for rough terrain environment</td>
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<td>Title: Climatic wind tunnel of Volkswagenwerk AG</td>
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<td>Title: Truck and bus brake system performance requirement (SAE J992)</td>
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<td>Title: The evolution of suspensions—What hydraulics and electronics possibilities can bring</td>
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<td>Title: A new investigation tool for the dynamics of 4WD and 4WS cars</td>
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<td>Environment Sustainability Conference and Exhibition</td>
<td>Title: Adaptation of the passenger car to the road conditions of third world countries</td>
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<td>Title: New suspension system for overhung tractor scrapers improves life and performance of machine</td>
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<td>Farm, Construction and Industrial Machinery Meeting</td>
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<td>Title: Emergency braking dynamics of ground effects open-wheeled racing cars</td>
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<td>Title: Joint force and moment analysis of a three-dimensional suspension mechanisms</td>
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<td>Title: Development of a mobile tire test fixture and lateral force variations due to large camber angles</td>
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<td>Title: Modern automotive technology as exemplified by the Mercedes-Benz 300/500 SL</td>
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<td>Title: Vibration isolated cabin by active suspension—Requirements, concept, and first results</td>
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Title: Tractor-semitrailer handling: a dynamic tractor suspension model
Title: Analysis of lateral stability for doubles
Title: Automatic stabilization of tractor jackknifing in tractor-semitrailer trucks

International Automobile Engineering and Manufacturing Meeting
Title: A technique for the validation of vehicle models using the road simulator
Title: Some aspects of suspension and steering design for modern compact cars

Title: Handling performance requirements of automobiles - discussed in the context of the VW Golf
Title: Design considerations of adaptive brake control systems
Title: Introduction of antilock braking systems for cars
Title: The use of the computer in determining brake balance
Title: A primer on nonlinear, steady-state vehicle turning behavior
Title: A method for the evaluation of the lateral stability of vehicles and tires
Title: Tire properties effects on passenger car handling

International Automobile Safety Conference
Title: Cornering ability analysis based on vehicle dynamics system
Title: Effects of compliance on vehicle handling properties
Title: Traction effects while cornering
Title: Brake system component dynamic performance measurement and analysis

International Automotive Engineering Congress and Exposition
Title: History of tandem suspensions for trucks
Title: Mathematical and empirical study of truck ride
Title: On the prediction of off-road vehicle system mobility
Title: The air-cell suspension system—A solution to off-road mobility problems
Title: Evolution of sure-track automotive braking system
Title: Development of vehicle dynamics by means of a digital computer
Title: Considerations in determining vehicle handling requirements

Title: Technological development directing the path to fully automatic vehicle control systems
Title: The truck steering system from hand wheel to road wheel
Title: Handling characteristics of the General Motors experimental safety vehicle
Title: ESV dynamic performance
Title: Development of the brake system for the General Motors experimental safety vehicle
Title: Vehicle attitude control methods
Title: Aerodynamic disturbances encountered in highway passing situations
Title: Dynamic analysis of a three-dimensional vehicle model undergoing large deflections
Title: Non-linear model formulation for the static and dynamic analyses of front suspensions
Title: Simulation of a vehicle suspension with the ADAMS computer program
Title: Brake system design for medium/heavy trucks to meet FMVSS 105-75 stopping distance requirements
Title: Experimental and theoretical analysis on independent rear suspension and body structure to reduce interior noise
Title: Development of a lightweight small car disc brake system for international usage
Title: Results from a collisions avoidance radar braking system investigation

International Body Engineering Conference and Exposition
Title: A review of the state-of-the-art of angular rate sensors
Title: Influences of parameters at vehicle rollover

International Conference on Automotive Electronics
Title: Electronic braking system

International Conference on Vehicle Structural Mechanics
Title: Real-time dynamics simulation—a design optimization tool
Title: Reliability of Daimler-Benz/WABCO anti-lock systems—Five years of experience after production began
Title: Practical considerations of North American heavy vehicle air brake antilock systems

International Congress on Transportation Electronics
Title: Traction control (ASR) an extension of the anti-lock braking system (ABS)
Title: Automatic electronic steering —a new approach
Title: 4WS technology and the prospects for improvement of vehicle dynamics

International Mid-Year Meeting
Title: Antilock braking systems (ABS) for commercial vehicles—Status 1990 and future prospects

Title: Research in automobile dynamics - a computer simulation of general three-dimensional motions
Title: GKN Ferguson formula all-wheel control system

International Pacific Conference on Automotive Engineering and High Temperature Engineering Conference
Title: A study on drum-brake noise of heavy duty vehicle

Title: Tandem anti-lock systems for air braked vehicles

Title: Truck disc brakes—practice makes perfect

Title: The Girling "Twinstop" brake

Title: The design concept of an integral power steering system for heavy duty trucks

Title: The use of small scale wind tunnel data in the design of cab-over-engine tractor/trailer combinations

Title: Kenworth Airglide 100 rear suspension

Title: Friction induced vibration: brake moan

Title: Modeling the cooling of an automotive brake rotor

Title: Analytical prediction of vehicle handling behavior

Title: Vehicle stability studied with a nonlinear 7-deg model

Title: Trends in braking techniques used with European vehicles

Title: Design of a shock absorber to improve vehicle riding comfort by reducing jerk

Title: On the vehicle dynamic response to the steering control - experimental evaluation of the response and analytical approach to the design of the performance with 7-deg-of-freedom model

Title: Suspension and steering of the 1969 VW 411 model

Title: Effect of tractive force on directional stability and controllability of vehicles

Title: 1970 Ford dual circuit air brake system

Title: Dual circuit air brake control system

Title: Highway vehicle stability in braking maneuvers

Title: Applicability of braking control systems for highway vehicles

Title: Optimization of the steering and braking performance of commercial vehicles using electronic intelligence

Title: Automotive vehicle chassis simulation for motion control studies using multibody systems (MB5) modelling techniques

Title: The use of multi-body systems analysis in the design and analysis of vehicle suspension systems

Title: Suspensions optimization
National Aeronautic and Space Engineering and Manufacturing Meeting

700869 Title: International Harvester air suspension for single- and tandem-axle trucks

National Aeronautical and Space Engineering and Manufacturing Meeting

710781 Title: Bond graph methods in structural dynamics

National Automobile Engineering Meeting

720356 Title: Application of the parameter plane method to the handling of a vehicle under emergency conditions

720473 Title: New laboratory facility for measuring vehicle parameters affecting understeer and brake steer

720495 Title: Rollover testing

730525 Title: Evaluation of vehicle handling and stability by computer simulation at the first stage of vehicle planning

730526 Title: A computer simulation for three-dimensional vehicle dynamics

730535 Title: Hydraulic brake actuation systems for antilock systems and disc brakes

730591 Title: Handling and stability Volvo's experimental safety car

National Farm, Construction, Industrial Machinery, Powerplant Meeting

720791 Title: Stabilization of a hydro mechanical steering system

720803 Title: Hydrostatic steering designed for large off-highway vehicles

National Fuels and Lubricants and Transportation Meetings

700880 Title: Systems approach to heavy truck steering

700894 Title: Air ride truck suspension

National Truck Meeting and Exposition

781064 Title: Analysis of the directional response characteristics of double tankers

781065 Title: Analysis of the rollover dynamics of double-bottom tankers

781067 Title: Ride comfort aspects of heavy truck design

781068 Title: Trend of Japanese truck, bus, and trailer brakes

791035 Title: Evolution of the new Ford light truck four wheel drive independent front suspension

791046 Title: Evaluation of the braking performance of a tractor-semi-trailer equipped with two different types of anti-lock systems

801402 Title: Experimental shape research of ideal aerodynamic characteristics for industrial vehicles

801403 Title: The effect of tractor-trailer flow interaction on the drag and distribution of drag of tractor-trailer trucks
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<td>801404</td>
<td>Title: Aerodynamic drag reduction of intercity buses</td>
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<td>Title: Aerodynamic evaluations of the 1980 F-series light and medium trucks and the 1978 CL-9000 heavy truck</td>
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<td>801405</td>
<td>Title: An assessment of ride quality of heavy-duty trucks</td>
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<td>801418</td>
<td>Title: Optimum design of tractor-semitrailer suspension systems</td>
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<td>801421</td>
<td>Title: Articulated vehicle dynamic analyses using equivalent linearization technique</td>
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National Truck Meeting and Truck Engineering Exposition

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<td>770892</td>
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National West Coast Meeting

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<td>740604</td>
<td>Title: Design approaches to truck disc brakes</td>
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<td>740628</td>
<td>Title: A study of motorcycle suspension damping characteristics</td>
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<td>740630</td>
<td>Title: Antilock brake system application to a motorcycle front wheel</td>
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<td>750702</td>
<td>Title: Development of devices to reduce the aerodynamic resistance of trucks</td>
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<td>Title: Comparisons of effectiveness of commercially available devices for the reduction of aerodynamic drag on tractor-trailers</td>
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<td>750704</td>
<td>Title: Air wedge disc brakes for heavy truck front axles</td>
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SAE 2000 World Congress

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<td>Title: Development of a new multi-link suspension</td>
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<td>2000-01-0093</td>
<td>Title: Aerodynamics drives chassis design on Ferrari 360 Modena</td>
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<td>Title: Torsion beam rear suspension with toe-controlled compliant hubs</td>
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<td>Title: A vibration transfer reduction technique, making use of the directivity of the force transmitted from road surface to tire</td>
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<td>2000-01-0102</td>
<td>Title: Electromechanical active suspension demonstration for off-road vehicles</td>
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<td>Title: Development of hydraulic active suspension with feedforward and feedback design</td>
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<td>2000-01-0105</td>
<td>Title: Prospects and aspects of an integrated chassis management ICM</td>
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<td>Title: Closed-loop yaw control of vehicles using magneto-rheological dampers</td>
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<td>2000-01-0108</td>
<td>Title: Improving the dynamic driving behavior of lightweight vehicles</td>
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<td>2000-01-0109</td>
<td>Title: Development of a controlled braking strategy for vehicle adaptive cruise control</td>
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<td>Title: Experimental approach for evaluating tire characteristics and ABS performance</td>
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2000-01-0122 Title: Integration of interdisciplinary partial models into the dynamic vehicle simulation
2000-01-0126 Title: Vehicle design evaluation using the digital proving ground
2000-01-0129 Title: A CFD validation study for automotive aerodynamics
2000-01-0170 Title: A workload approach to the evaluation of vehicle handling characteristics
2000-01-0175 Title: Quality assurance of driver comfort for automatic transmissions
2000-01-0179 Title: Driver abilities in closed course testing
2000-01-0180 Title: Motorscooter braking control response study
2000-01-0288 Title: Validation and use of SIMULINK integrated, high fidelity, engine-in-vehicle simulation of the international class VI truck
2000-01-0289 Title: Hardware-in-the-loop, dynamometer based driver and vehicle simulator
2000-01-0303 Title: Utilization of ADAMS to predict tracked vehicle performance
2000-01-0322 Title: Design of hardware/algorithms for enhancement of driver-vehicle performance in inclement conditions using a virtual environment
2000-01-0350 Title: On-road and wind tunnel turbulence and its measurement using a four-hole dynamic probe ahead of several cars
2000-01-0351 Title: Wind-tunnel tests of vehicle cooling system performance at high blockage
2000-01-0352 Title: Prevention against Unsafe Transportation of Goods on Passenger Vehicle Roofs
2000-01-0353 Title: Rolling Road Technology for Automotive High Speed Testing
2000-01-0354 Title: Selecting automotive diffusers to maximise underbody downforce
2000-01-0355 Title: A flow visualization study of the aerodynamic interference between passenger cars
2000-01-0356 Title: An analytical tire model for vehicle simulation in normal driving conditions
2000-01-0357 Title: Modeling combined braking and steering tire forces
2000-01-0358 Title: A non-steady and non-linear tire model under large lateral slip condition
2000-01-0361 Title: Modeling of tire rolling properties by using experimental modal parameters
2000-01-0362 Title: A study on tire non-steady-state cornering characteristics using experimental modal parameters
2000-01-0438 Title: Brake system with double link-type variable ratio brake pedal
2000-01-0442 Title: Tool support for analyzing and optimization methods in early brake system sizing phases
2000-01-0443 Title: Development of a single-shoe leading-trailing drum brake—Code named Fuchsia
2000-01-0444 Title: Complex eigenvalue analysis for reducing low frequency brake squeal
2000-01-0445 Title: An analytical method to predict thermal distortion of a brake rotor
2000-01-0447 Title: Reducing high-frequency disc brake squeal by pad shape optimization
Title: Low-frequency drum brake noise investigation using a 1/4 vehicle test rig

Title: Advances in external-aero simulation of ground vehicles using the steady RANS equations

Title: On the underbody flow of a simplified estate

Title: Drag and dirt deposition mechanisms of external rear view mirrors and techniques used for optimisation

Title: CFD simulations and experimental measurements of the flow over a rotating wheel in a wheel arch

Title: Rapid aerodynamic development of two-volume vehicle shapes

Title: An experimental investigation of the flow over the rear end of a notchback automobile configuration

Title: Parametric study of wake structures and forces of rectangular bodies with radiused edges near a plane surface

Title: A new aerodynamic approach to advanced automobile basic shapes

Title: Numerical aerodynamic optimization of a low fuel consumption car body shape

Title: Delphi electronic throttle control systems for model year 2000; driver features, system security, and OEM benefits—ETC for the mass market

Title: Determination of seat sponge properties with estimated biodynamic model

Title: A seat ride evaluation method for transient vibrations

Title: Construction of a vibration simulation model for the transportation of wheelchair-bound passengers

Title: Estimation of occupied seat vibration transfer functions

Title: Fidelity of vehicle models using roll center principles

Title: Research on closed-loop comprehensive evaluation method of vehicle handling and stability

Title: A side-slip angle estimation using neural network for a wheeled vehicle

Title: Estimation of vehicle side slip angle and yaw rate

Title: Properties of passenger car tires with tread detachment

Title: The effect of tire characteristics on vehicle handling and stability

Title: Model validation of the 1997 Jeep Cherokee for the National Advanced Driving Simulator

Title: Vehicle driveability assessment using neural networks for development, calibration and quality tests

Title: An active vibration isolation system for vehicle seats
Title: System modeling of a damper module
Title: Disc brake intermittent squeal noise study using experimental techniques based systematic approach
Title: Correlation of hydraulic circuit dynamic simulation and vehicle
Title: Development of electric power steering (EPS) system with H(infinity) control
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Title: Development of pneumatic aerodynamic devices to improve the performance, economics, and safety of heavy vehicles

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Title: Steady state and dynamic properties of All Terrain Vehicles related to lateral/directional handling and stability

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Title: Vehicle dynamics modeling for the National Advanced Driving Simulator of a 1997 Jeep Cherokee

Title: Characteristics of on-road rollovers

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Title: Subjective and objective ride evaluations of commercial vehicles

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Title: Establishment of vehicle braking behavior patterns with special reference to U. S. and European test procedures

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Title: Considerations for improvement of conventional motorcycle brake systems

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Title: Stability and performance analysis of automobile driver steering control

Title: Closed loop automobile maneuvers using preview-predictor models

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Title: The effect of simulator motion on driver performance

Title: The General Motors engineering staff aerodynamics laboratory - a full-scale automotive wind tunnel

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Title: The role of friction film in friction, wear, and noise of automotive brakes
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Title: Engineering parameters related to rollover frequency
Title: Skidmark signatures of ABS-equipped passenger cars
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Title: Correction of wind tunnel force data for yawed full and half scale truck models using a modified pressure signature method

Title: ASR-traction control, state of the art and some prospects

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Title: The integrated brake and stability control system of the new BMW 850i

Title: Measurement and simulation of transients in longitudinal and lateral tire forces

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Title: Airfoil plan-view body shapes to reduce drag at yaw

Title: Automobile aerodynamic noise

Title: An experimental analysis and estimation of aerodynamic noise using a production vehicle

Title: The aerodynamic development of the Opel Calibra

Title: Analysis of wake pattern for reducing aerodynamic drag of notchback model

Title: Numerical analysis of the airflow around automobiles using multi-block structured grids

Title: Studies supporting the development of an automotive adaptive-wall wind tunnel

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Title: Hydraulically controlled adjustable dampers

Title: An optimized approach to suspension control

Title: EDC III—The new variable damper system for BMW's top models—A further development of our adaptive, frequency-dependent damper control

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Title: Prediction methods of rough-road-load applied to vehicle body

Title: Dynamic simulation of chassis component loads

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<td>The Porsche wind tunnel floor-boundary-layer control—A comparison</td>
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<td>with road data and results from moving belt</td>
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<td>Experimental techniques for the aerodynamic development of</td>
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<td>convertible cars</td>
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Title: A water-basin test technique for the aerodynamic design of road vehicles
Title: Effect of wing/body interaction on the aerodynamics of two generic racing cars
Title: Analysis of disc brake squeal
Title: The brake judder phenomenon
Title: NHTSA's rollover rulemaking program—Results of testing and analysis
Title: The measurement of static rollover metrics

Title: The variation of static rollover metrics with vehicle loading and between similar vehicles
Title: A statistical analysis of vehicle rollover propensity and vehicle stability
Title: An investigation, via simulation, of vehicle characteristics that contribute to steering maneuver induced rollover
Title: Traction control (ASR) using fuel-injection suppression—A cost effective method of engine-torque control
Title: The Corvette acceleration slip regulation (ASR) application with preloaded limited slip differential

Title: Transputer-based real-time simulator: a high performance tool for ABS and TCS development
Title: Absolute speed measurement of automobile from noisy acceleration and erroneous wheel speed information
Title: Improvement of vehicle dynamics through braking force distribution control
Title: Electronic brake force distribution control: a sophisticated addition to ABS
Title: Compact ABS modulator with small-solenoid-valves
Title: Regenerative braking concepts for electric vehicles—A primer
Title: Design of a lightweight braking system for electric cars
Title: FASTAR: a faster analysis of structures using test and analytical results
Title: CTIS as a vehicle performance enhancer
Title: Steady-state cornering behavior of novice and experienced drivers
Title: Simulation techniques for automotive subsystems
Title: Hardware-in-the-loop simulation as a standard approach for development, customization, and production test
Title: Studies on the characteristics of a new suspension system

Title: A method to analyze the imaginary kingpin axis in multi-link type suspension systems
Title: Improving the suspension design process by integrating multibody system analysis and design of experiments
Title: Investigation of the time- and temperature dependency of hydro-pneumatic suspension systems

Title: Active suspension and rear wheel steering make powerful research and development tools
Title: Development of an integrated system of 4WS and 4WD by H infinity control
Title: An actively damped passenger car suspension system with low voltage electro-rheological magnetic fluid

Title: Computational analysis of flow around a simplified vehicle-like body
Title: Development and use of LDV and other airflow measurement techniques as a basis for the improvement of numerical simulation of engine compartment air flows
Title: A numerical evaluation of the thermal effect of the new V6 engine on the underhood environment of the 1993 Opel vectra

Title: A numerical study of wind noise around front pillar
Title: Airflow measurement around passenger car models using a two-channel laser doppler velocimeter

Title: Measurements in the unsteady near wakes of ground vehicle bodies
Title: Measurement and analysis of automobile wind noise
Title: Audi aero-acoustic wind tunnel

Title: Shape study for a low air resistance air deflector
Title: Tandem master cylinder in change-due to specific requirements of anti lock and traction control systems

Title: The new ABS/ASR family to optimize directional stability and traction
Title: ASR built in an add-on ABS
Title: The use of a graphical modeling environment for real-time hardware-in-the-loop simulation of automotive ABS systems

Title: The braking system layout of electric vehicles-example BMW E1
Title: Synthesis of ABS hydraulic systems
Title: Autonomous intelligent cruise control incorporating automatic braking

Title: Fault tolerance analysis of alternate automotive brake system designs
Title: A method for the instantaneous torque measurement of braking or motoring machines under steady or transient operation using digital techniques

Title: Bifurcation in binder wrap forming
Title: The Ford driving simulator
Title: Real-time wheel brake and tire lateral force models refined for low speeds
Title: The General Motors driving simulator
Title: Design analysis of an electronically-controlled hydraulic braking system using the Saber Simulator
Title: DSP-based automotive sensor signal generation for hardware-in-the-loop simulation
Title: Dynamic tire modeling for application with vehicle simulations incorporating terrain
Title: The effects of roll control for passenger cars during emergency maneuvers
Title: Methodology for tripped vehicle rollover testing and analysis of experimental results
Title: Effects of outrigger design on vehicle dynamics
Title: Simulator motion base sizing using simulation
Title: Meeting important cuing requirements with modest, real-time, interactive driving simulations
Title: Active control of drive motion of four wheel steering car with neural network
Title: A systematic approach to vehicle design using VDAS (Vehicle Dynamics Analysis Software)
Title: Validation of computer simulations of vehicle dynamics
Title: Modeling of shock absorber behavior using artificial neural networks
Title: Design for pitch and bounce motions of single-passenger off-road vehicles
Title: Modeling of pitch and bounce motions of singe-passenger off-road vehicles
Title: Steady-state and transient response characteristics of selected all-terrain vehicles (ATVs)
Title: A calibration study of CFD for automotive shapes and CD
Title: The aerodynamic development of a small specialty car
Title: Objective characterization of vehicle brake feel
Title: The evolution of the pad guided disc brake caliper
Title: Weight reduction of disc brake systems with the utilization of new aluminum material
Title: The effect on aerodynamic drag of the longitudinal position of a road vehicle model in a wind tunnel test section
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Title: Simulation and evaluation of semi-active suspensions
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Title: Motion control of the vehicle with an active suspension system
Title: Advanced hydraulic suspension—Ride simulation using a 3-dimensional vehicle model

Title: Magnetic power steering assist system—MAGNASTEER

Title: A nonlinear parametric model of an automotive shock absorber

Title: Comparison of three active chassis control methods for stabilizing yaw moments

Title: Factoring nonlinear kinematics into new suspension design: a CAE approach to vehicle roll dynamics

Title: The influences of chassis geometric characteristics on vehicle dynamic performances

Title: Regenerative active suspension on rough terrain vehicles

Title: Laser ride height measurement/calibration system

Title: Error analysis of center-of-gravity measurement techniques

Title: In-vehicle accelerator system performance measurement machine

Title: Hydroplaning and accident reconstruction

Title: High-fidelity road/tire interaction models for real time simulation

Title: Low cost driving simulation for research, training and screening applications

Title: A survey of mid-level driving simulators

Title: An overview of the DRI driving simulator

Title: Determination of the drag factor of a fairing-equipped motorcycle

Title: Study on improving the motorcycle high speed stability using a rear wheel self-steering system

Title: Study of motorcycle handling characteristics and rider feeling during lane change

Title: A study on the effects of the active yaw moment control

Title: Emulating the lateral dynamics of a range of vehicles using a four-wheel-steering vehicle

Title: An investigation of the effects of roll control on handling and stability of passenger vehicles during severe lane change maneuvers

Title: Analysis of simple rollover metrics

Title: A study of vehicle class segregation using linear handling models

Title: An overview of the HVE vehicle model

Title: The design of a vehicle inertia measurement facility

Title: Validation of flat surface roadway technology

Title: Tire modeling for low-speed and high-speed calculations

Title: Tire modeling requirements for vehicle dynamics simulation
Title: The effects of tire cornering stiffness on vehicle linear handling performance
Title: Modeling of dynamic characteristics of tire lateral and longitudinal force responses to dynamic inputs
Title: The effects of light-vehicle design parameters in tripped-rollover maneuvers—A statistical analysis using an experimentally validated computer model
Title: Performance of four-wheel-steering vehicles in lane change maneuvers
Title: The application of pulse input techniques to the study of tire lateral force and self-aligning moment dynamics in the frequency domain
Title: ABS and relative crash risk under different roadway, weather and other conditions
Title: Speed from skids: A modern approach
Title: Nonconservation of momentum during impact
Title: Autonomous vehicle control system using an image processing sensor
Title: Fuzzy logic employed in an autonomous ICC vehicle
Title: Yaw rate sensor for vehicle dynamics control system

Title: Integrated electro-hydraulic power steering system with low electric energy consumption
Title: Analysis and reduction of power steering noise during static steering operation
Title: H-infinity control for Lancia Thema full-active suspension system
Title: Optimum design of engine and body mounts at total system level using unconstrained minimization
Title: Development of a multi-link beam rear suspension for front-wheel-drive cars

Title: Demonstration of an automotive semi-active suspension using electrorheological fluid
Title: The characteristic of the shock force induced in the switchable damper during its mode change
Title: A new class of smart automotive active suspensions using piezoceramic actuation
Title: A survey of automobile aeroacoustic activities in Germany
Title: The influence of vehicle elements to aspiration wind noise
Title: The aero-acoustic wind tunnel of Stuttgart Univ.
Title: ABCD—An improved coast down test and analysis method
Title: On-road aerodynamic drag measurements compared with wind tunnel data
Title: Numerical investigation of vehicle aerodynamics with overlaid grid system
Title: Practical aerodynamic simulations (CD, CL, CDYM) using a turbulence model and a 3rd-order upwind scheme
Title: Reducing splash and spray of trucks and passenger cars
Title: Drag forces experienced by 2, 3 & 4-vehicle platoons at close spacings
Title: Shape study for a low-air-resistance air deflector—The second report
Title: ABS5.3: the new and compact ABS5 unit for passenger cars
Title: ROADRUNNER—Real-time simulation in anti-lock brake system development
Title: VDC, the vehicle dynamics control system of Bosch
Title: Smart booster—New key element for brake systems with enhanced function potential
Title: Effective active safety to reduce road accidents
Title: Intelligent braking for current and future vehicles
Title: Electromechanical suspension for combat vehicles
Title: Braking system quality for customer satisfaction
Title: Analysis and optimization of disk brake cooling via computational fluid dynamics
Title: The brake system of the new 7-series BMW with electronic brake and wheel slip control
Title: The effect of regenerative braking on the performance and range of the AMPHibian II Hybrid Electric Vehicle
Title: Braking behaviour in emergencies
Title: Automatic target acquisition autonomous intelligent cruise control (AICC): driver comfort, acceptance, and performance in highway traffic
Title: Correlation of driver confidence and dynamic measurements and the effect of 4WD
Title: A new multi-component-wind-tunnel-balance for automotive wind tunnels
Title: Ground effect simulation for full-scale cars in the Pininfarina wind tunnel
Title: Turbulence experienced by road vehicles under normal driving conditions
Title: Automobile model scale wind-tunnel test by means of aeronautical wind-tunnel
Title: Influence of plenum dimensions on drag measurements in 3/4- open-jet automotive wind tunnels
Title: Processing of tire force/moment data
Title: Tire pressure warning system for passenger car applications
Title: Analysis of wheel lateral runout in dynamic balancing
Title: A tire side force model by artificial neural network
Title: Critical suspension relationships and their influence on transient behavior of performance vehicles
Title: Optimization of active and passive suspensions based on a full car model
Title: Modeling assumptions for realistic multibody simulations of the yaw and roll behavior of heavy trucks
Title: Verification of vehicle parameters for use in computer simulation
Title: Modeling and simulation of driver/vehicle interaction
Title: Modeling, characterization and simulation of automobile power steering systems for the prediction of on-center handling
Title: Requirements of a tire model for practical cornering simulations of vehicles
Title: A model for combined tire cornering and braking forces
Title: Nonlinear tire force estimation and road friction identification: field test results
Title: Tire force and moment processor
Title: Sprung/unsprung mass properties determination without vehicle disassembly
Title: Lateral/directional stability of tow dolly type combination vehicles
Title: Ride, handling & overall chassis development of GM Impact Electric Vehicle
Title: Efficiency considerations in the General Motors Impact electric vehicle ride, handling, and steering function
Title: Vehicle handling analysis using linearization around non-linear operating conditions
Title: Vehicle handling responses using stability derivatives
Title: The effect of normal force variation on the lateral dynamics of automobiles
Title: Improvement of vehicle directional stability for transient steering maneuvers using active brake control
Title: Simulation for the development of the Bosch-VDC
Title: Vehicle stability control in limit cornering by active brake
Title: Nonlinear vehicle performance simulation with test correlation and sensitivity analysis
Title: A primer on the reconstruction and presentation of rollover accidents
Title: Vehicle traction experiments on snow and ice
Title: Locked-wheel car braking in shallow water
Title: On the correction of interference effects in open-jet wind tunnels
Title: The influence of ground simulation and wheel rotation on aerodynamic drag optimization—Potential for reducing fuel consumption
Title: Development of pneumatic aerodynamic concepts for control of lift, drag and moments plus lateral/directional stability of automotive vehicles
Title: Comparing static and dynamic testing techniques for the crosswind sensitivity of road vehicles
Title: Preliminary investigation of the influence of a ground-plane boundary layer on the aerodynamic characteristics of road vehicle models tested over a fixed ground

Title: Measurement of wake flow fields, including reverse flow, of scale vehicle models using a new 13-hole pitot tube

Title: Limited mesh refinement study of the aerodynamic flow field around a car-like shape, computational versus experimental fluid dynamics

Title: Flow-field simulations of three simplified vehicle shapes and comparisons with experimental measurements

Title: Simulating external vehicle aerodynamics with CARFLOW

Title: A survey of improved techniques for analysis of 3D separated flows in automotive aerodynamics

Title: Accuracy of drag predictions on cars using CFD—Effect of grid refinement and turbulence models

Title: Unsteady flow over a half cylinder in proximity to a stationary and moving wall

Title: The effect of various limited-slip differentials in front-wheel drive vehicles on handling and traction

Title: Visco-Lok: A speed-sensing limited-slip device with high-torque progressive engagement

Title: New valve technology for active suspension

Title: Study of improving road-load simulation (Power steering dynamic testing system)

Title: Approaches to minimizing side force of helical coil springs for riding comfort

Title: Vehicle testing with flat surface roadway technology

Title: The effects of bushing degradation on vehicle high mileage NVH performance

Title: The application of CAE based robustness methodology to vehicle high mileage NVH degradation

Title: Sensitivity analysis of chassis system to improve shimmy and brake judder vibration on steering wheel

Title: An improved non-intrusive automotive suspension testing apparatus with means to determine the condition of the dampers

Title: The steering of track laying vehicles

Title: Independent suspension systems—Applications for specialized vehicles

Title: On-road measurements of aerodynamic lift compared with wind tunnel data

Title: An experimental investigation of wheel-well flows

Title: Aeroacoustic and acoustic testing of automobile side windows
Title: Recent aerodynamic improvements at the Lockheed Martin Low Speed Wind Tunnel
Title: Elimination of a high-frequency narrow-band noise component in a low-noise automobile wind tunnel
Title: Aerodynamic evaluation of two Maglev designs
Title: Aerodynamics overview of the Ground Transportation Systems (GTS) Project for heavy vehicle drag reduction
Title: Experimental investigation of the Ground Transportation Systems (GTS) project for heavy vehicle drag reduction
Title: Wind tunnel investigation of an inflatable aerodynamic boattail for tractor-trailers
Title: Cambered airfoil in ground effect—An experimental and computational study
Title: The effect of aerodynamic drag changes on the exhaust emissions of a typical large car
Title: Center-closed rotary servo valve for power steering
Title: A novel steering vibration stabilizer
Title: Handling enhancement due to an automotive variable ratio electric power steering system using model reference robust tracking control
Title: Procedure for the characterization of friction in automobile power steering systems
Title: An energy-saving technique in an electro-hydraulic power steering (EHPS) system
Title: Development of active suspensions using velocity feedback
Title: Optimal preview control design of active and semi-active suspension systems including jerk
Title: An experimental and theoretical study of a switchable damper
Title: An on-line learning control of unsupervised neural network for a vehicle four wheel steering system
Title: Adaptive control strategies for a switchable damper suspension system
Title: Electronic brake management EBM—Prospects of an integration of brake system and driving stability control
Title: Hybrid traction control system utilizing an engine inertia brake
Title: Traction control improvement in all-wheel drive
Title: Fuzzy logic approach to traction control design
Title: Development of four solenoid ABS
Title: Tire/ice friction values
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<tr>
<td>Combination of Antilock Brake System (ABS) and Combined Brake System (CBS) for motorcycles</td>
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<td>Analysis of a series/fail-safe electro-hydrostatic brake system concept</td>
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<td>Electrohydraulic brake system—The first approach to brake-by-wire technology</td>
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<td>Design of a brake by wire system using OOA</td>
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<td>A study on low-frequency brake squeal noise</td>
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<td>Study of tire model consisting of theoretical and experimental equations for vehicle dynamics analysis—Part 2: Under the condition of various velocity on the asphaltic road surface</td>
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<td>New tire design procedure based on optimization technique</td>
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<td>The role of steer and sideslip in the mechanism of slip angle</td>
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<td>Effects of surface anomalies and tire mechanics on ATV tire friction coefficients</td>
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<td>Laboratory tire wear simulation process using ADAMS vehicle model</td>
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<td>Longitudinal autonomous vehicle control utilizing access to electronic throttle control, automatic transmission and brakes</td>
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<td>Adaptive cruise control system aspects and development trends</td>
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<td>Active suspension in the automotive industry and the military</td>
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<td>Objective ride and handling goals for the 1997 Chevrolet Corvette</td>
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<td>Design synthesis of suspension architecture for the 1997 Chevrolet Corvette</td>
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<td>Evaluation and improvement of vehicle roll behavior</td>
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<td>Methodology for effective design evaluation and durability approval of car suspension components</td>
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<td>Field measurement of suspension parameters using strain measurement techniques as applied to two wheelers</td>
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<td>Design and operation of a new vehicle suspension kinematics and compliance facility</td>
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<td>Synthesis of chassis parameters for ride and handling on the 1997 Chevrolet Corvette</td>
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<td>Ride and handling development of the 1997 Chevrolet Corvette</td>
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<td>Optimization on Mac Pherson suspension with a spring</td>
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<td>Physical modeling of the hysteretic behavior of automotive shock absorbers</td>
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<td>The investigation of design parameters influencing on on-center handling using AUTOSIM</td>
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<td>Effect of steering-housing rubber bushings on the handling responses of a vehicle</td>
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Title: Elastokinematic analysis and optimization of suspension compliance characteristics

Title: Vehicle dynamics simulation and suspension system design

Title: Rotating wheels—Their impact on wind tunnel test techniques and on vehicle drag results

Title: The influence of ground simulation on the aerodynamics of a simple car model

Title: Assessing the effects of shear and turbulence during the dynamic testing of the crosswind sensitivity of road vehicles

Title: Contemplation of nozzle blockage in open-jet wind tunnels in view of different "Q" determination techniques

Title: Aerodynamic simulations by using discontinuous interface grid and solution adaptive grid method

Title: Unstructured adaptive grid solution methodology for automotive aerodynamics

Title: Driver car following behavior under test track and open road driving condition

Title: Development of a scan laser radar

Title: Driver behavior under a collision warning system—A driving simulator study

Title: Theoretical consideration of relation of rear-wheel skid to steering inputs

Title: Analysis of energy consumption for various power assisted steering systems

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Title: Steering wheel angle sensor for vehicle dynamics control systems

Title: Active suspension performance limits for cross-country operation

Title: Twin-accumulator suspension system

Title: An energy efficient electromagnetic active suspension system

Title: Semiactive suspension: a mobility case study

Title: Computational prediction of vehicle aerodynamic noise by integration of a CFD technique with Lighthill's acoustic analogy

Title: Transient aerodynamic simulation in crosswind and passing an automobile

Title: The sideways dynamic force on passenger cars in turbulent winds

Title: Effects of on-road turbulence on automotive wind noise: comparing wind-tunnel and on-road tests

Title: Coast down method in time-distance variables

Title: Safety evaluation methodology for the intelligent cruise control field operational test

Title: Tests characterizing performance of an adaptive cruise control system

Title: Filter performance requirements for engine air induction systems
Title: The Paper-Tire concept: a way to optimize tire force and moment properties
Title: The behavior of tire-force model parameters under extreme operating conditions
Title: A vehicle dynamics tire model for both pavement and off-road conditions
Title: Variable dynamic testbed vehicle: dynamics analysis
Title: Matching vehicle responses using the model-following control method
Title: Methodology for validating the National Advanced Driving Simulator’s vehicle dynamics
Title: Experimental testing of a 1994 Ford Taurus for NADSdyna validation
Title: Parameter measurement and development of a NADSdyna validation data set for a 1994 Ford Taurus
Title: Validation results from using NADSdyna vehicle dynamics simulation
Title: Evaluation of VDANL and VDM RoAD for predicting the vehicle dynamics of a 1994 Ford Taurus
Title: Improving steering feel for the National Advanced Driving Simulator
Title: Rollover detection
Title: Development of a new 4WD system: all-mode 4WD
Title: New low cost ABS concept for small cars
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Title: Electromechanical brake system: Actuator control development system
Title: Use of a hazard and operability study for evaluation of ABS control logic
Title: A comparison of moment of inertia estimation techniques for vehicle dynamics simulation
Title: Drag and steering effects of under inflated and deflated tires
Title: Project Y.A.M. (Yaw Analysis Methodology) vehicle testing and findings, Victoria Police, Accident Investigation Section
Title: An analytical assessment of the Critical Speed Formula
Title: Validation of the EDVSM 3-dimensional vehicle simulator
Title: Heavy truck wheel load distributions on the highway
Title: Standard test procedure for passenger car brake components using operating strength
Title: New chances for the drum brake through electronically controlled self-energizing
Title: Electronic control canceling system for a disc brake noise
Title: Analysis of disc brake squeal
Title: Computational flow analysis of brake cooling
Title: Thermal state of automotive brakes after braking on the road and on the roll-stand

Title: Topsy—A modular chassis parameter measurement system

Title: A programmable steering machine for vehicle handling tests

Title: Handling analysis with vehicle dynamics simulator

Title: Simulation in the development of ASMS

Title: The effects of motorcycle behavior of the moment of inertia of the crankshaft

Title: An adaptive control model for lateral path following with closed-loop handling simulations

Title: Comparison of ideal vehicle lane-change trajectories

Title: Control system for single wheel station heavy tracked vehicle active electromagnetic suspension

Title: Laboratory testing of active electromagnetic near constant force suspension (NCFS) concept on subscale four corner, full vehicle test-rig

Title: The development of vehicular powertrain system modeling methodologies: philosophy and implementation

Title: A multibody approach to modeling tire longitudinal and lateral flexibility

Title: Validation of a FEA tire model for vehicle dynamic analysis and full-vehicle real-time proving ground simulations

Title: An inductively coupled method for remote tire pressure sensing

Title: Measurement of 3D tire deformation, force, moment, and contact pressure

Title: Effects of complicate tread element geometry and loading conditions on thin film wet traction

Title: A computationally efficient method to analyze to analyze viscous hydroplaning of pneumatic tires

Title: Development of the quick response tandem brake booster

Title: Improved wheel speed and slip determination considering influences of wheel-suspension dynamics and tire dynamics

Title: Application of neural networks in the estimation of tire/road friction using the tire as sensor

Title: Development of compact, low-cost, lightweight, high-performance cruise control unit

Title: Infrared technology for "ACC" and future advanced applications

Title: Formulas for estimating vehicle critical speed from yaw marks—A review

Title: Vehicle critical speed formula—Values for the coefficient of friction: a review
Title: The driver model and identification of its parameters

Title: Modeling of vehicle rollover and evaluation of occupant injury potential using MADYMO

Title: Characteristics of soil-tripped rollovers

Title: The aerodynamic performance of automotive underbody diffusers

Title: A parametric study on the ground effect of a simplified car model

Title: The use of CFD to predict the aerodynamic characteristics of simple automotive shapes

Title: Accuracy in computational aerodynamics—Part 2: base pressure

Title: Aerodynamic optimization of the Opel Calibra ITC racing car using experiments and computational fluid dynamics

Title: Rollover simulation based on a nonlinear model

Title: Delta-V analysis from crash test data for vehicles with post-impact yaw motion

Title: Vehicle dynamics and motion simulation versus experiment

Title: 3-Dimensional simulation of vehicle response to tire blowouts

Title: A low-cost, PC-based driving simulator for prototyping and hardware-in-the-loop applications

Title: Driving simulation

Title: Modeling and simulation of a 6x6 military troop/cargo transport vehicle

Title: Vehicle handling assessment using a combined subjective-objective approach

Title: Evaluation of vehicle/driver performance using genetic algorithms

Title: Effects of loading on vehicle handling

Title: A combined active-steering, differential-braking yaw rate control strategy for emergency maneuvers

Title: Development and validation of an optimized emergency lane-change trajectory

Title: Chevrolet C5 Corvette vehicle dynamic control system

Title: New driving stability control system with reduced technical effort for compact- and medium-class passenger cars

Title: VDC systems development and perspective

Title: Furthering the evolution of function and performance for ABS systems

Title: Smart algorithm for a tire pneumatic pressure monitor embedded in ABS program

Title: Controlled brake component development process

Title: ABS braking performance and steering input
Title: Automatic valuation and verification of ABS controllers by using a hardware-in-the-loop simulation

Title: Control of wheel dynamics

Title: A robust lumped-parameter tire model developed for real-time simulation

Title: Hardware-in-the-loop simulation for ABS

Title: Calculating experimental technique on choosing the components and algorithms of anti-blocking system functioning in the air brake system

Title: A new control strategy for anti-lock braking systems

Title: An investigation of the use of a new nonlinear control strategy for integration of active suspension and anti-lock braking systems

Title: Effect of tire characteristics on the simulation of vehicle straight ahead motion

Title: Modeling of rolling resistance test data

Title: Tire modeling for vertical properties by using experimental modal parameters

Title: A model of tire enveloping properties and its application on modeling of automobile vibration systems

Title: Simulations of tire cornering properties in non-steady-state conditions

Title: Rolling resistance of tires—An analysis of heat generation

Title: Evaluation of tire wear performance

Title: Self-supporting tire performance criteria and testing

Title: Tire pressure warning system

Title: A study on the chrome platability of cast aluminum wheels

Title: Tire radial vibrations at high speed of rolling

Title: Total vehicle vibration isolation (TVVI) for automotive and other applications

Title: Vehicle braking on steep down grades: field experiment results

Title: The aerodynamic forces induced on a passenger vehicle in response to a transient cross-wind gust at a relative incidence of 30°

Title: A comparison of on-road aerodynamic drag measurements with wind-tunnel data from Pininfarina and MIRA

Title: ""CDaero""—A parametric aerodynamic drag prediction tool

Title: Aerodynamic design considerations of a Formula 1 racing car

Title: The continued design and development of the University of California, David FutureCar

Title: Innovative methodology for brake torque and residual brake torque measurement

Title: Study on thermoplastic deformation for one-piece brake disks
Title: A study of the mechanism causing high-speed brake judder
Title: Influence of material selection on stresses in ventilated brake discs
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Title: Development of a collision avoidance system
Title: The Ohio State University automated highway system demonstration vehicle
Title: Suspension kinematics and compliance—Measuring and simulation
Title: The improvement of handling performances through the sensitivity analysis validated by the K&C test

Title: Research on the dynamics of flexible multibody system of passenger car suspension
Title: Vehicle chassis/suspension dynamics analysis—Finite element model versus rigid body model
Title: Design of lightweight suspension component using CAE

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Title: Chassis system integration approach for vehicle high mileage NVH robustness
Title: A comparison of controller designs for an active, electromagnetic, off-road vehicle suspension system traveling at high speed
Title: High-resolution, computer-based modeling, simulation, and validation of a truck/trailer combination model

Title: The advantages of using standard vehicle dynamics procedures and analysis programs
Title: Brake-by-wire without mechanical backup by using a TTP-communication network
Title: Development of active rear steer system applying H-infinity-msynthesis
Title: Control of electric power steering systems
Title: Development of electronic-controlled power steering system
Title: Performance of limited bandwidth active suspension based on a half-car model
Title: Semiactive suspension: a field testing case study
Title: Analysis on benefits of an adaptive Kalman filter active vehicle suspension
Title: Preview control of active vehicle suspensions based on a state and input estimator

Title: New approach for vehicle system NVH analysis—Part I: concept and vibration analysis
Title: Estimating lateral stability region of a nonlinear 2 degree-of-freedom vehicle
Title: A review of the wind conditions experienced by a moving vehicle
Title: Powertrain and brake modeling of the 1994 Ford Taurus for the National Advanced Driving Simulator

Title: Traction behavior under extreme conditions
Title: The Society of Automotive Engineers Clean Snowmobile Challenge 2001—Summary and results
Title: The design and implementation of Kettering University’s entry into the 2001 Clean Snowmobile Challenge

Title: Simulation of the forwarder dynamics
Title: Wide tires, narrow tires

Title: Dynamic simulation techniques for steering of tracked agricultural and forestry vehicles
Title: System identification of an electrohydraulic steering system
Title: The SAE Clean Snowmobile Challenge 2000—Summary and results
Title: 1998 Polaris Indy Trail: An entry by Minnesota State University, Mankato in the ""Clean Snowmobile Challenge 2000"
Title: Optimization of the tractive performance of four-wheel-drive tractors—Correlation between analytical predictions and experimental data
Title: Some aspects on modeling of the moving forest machines
Title: Development of KUBOTA new utility M Series tractors
Title: Adapting the off-highway truck body volumetric process to real-world conditions

Title: A reliability oriented approach to the design of off-highway steering systems

Title: An introduction to electric trailer brake systems

Title: Shock absorbers: an integral part of recreational vehicle developments

Title: Load-sensitive hydrostatic steering—a new approach

Title: Designing the brake system—Step by step

Title: Proportional braking for large trucks in mountain mine service—Some aspects of design

Title: Computer simulation of tractor ride for design evaluation

Title: Tractor ride comfort package

Title: Brake testing and lining evaluation of large off-highway mining trucks

Title: Nondeterministic analysis of a four-wheeled model vehicle traversing a simulated random terrain

Title: Load sensitive steering for energy savings

Title: Agricultural tractor chassis suspension system for improved ride comfort

Title: Off-road vehicle ride: review of concepts and design evaluation with computer simulation

Title: Improvements in crawler tractor traction

Title: Emergency steering—which system is best?

Title: Load sense steering design considerations

Title: Nonlinear lateral stability analysis of road vehicles using Liapunov's second method

Title: Three-wheeled ATV—a no-suspension rigid rider system, Part I: modeling and parameter values

Title: Three-wheeled ATV—a no-suspension rigid rider system, Part II: applications—handling and ride

Title: Suspension designs to improve tractor ride: I. passive seat suspension

Title: Suspension designs to improve tractor ride: II. passive cab suspension

Title: Ride and shake study of a light truck vehicle by using test data based computer modal synthesis

Title: Networked microcomputer automatic steering system

Title: Multi-mode electrohydraulic steering system for off road vehicles

Title: Simulation of agricultural tractor-trailer system stability

Title: Optimization of dynamic vehicle response
Title: Designing forest machines for better ride with computer simulation
Title: Dynamic longitudinal stability characteristics of skid-steer loaders
Title: Steering motion analysis of tractor-trailer systems

Title: Road-vehicle directional response studies using a general-purpose simulation methodology
Title: Performance of a vision-based tractor guidance system
Title: The Kubota's new "bi-speed turn" mechanism
Title: Open-loop, fixed-control simulation of a vehicle undergoing steering and acceleration maneuvers
Title: Steering behavior analysis of articulated vehicle with multi-wheel steering system
Title: Hydraulic brake control system for off-highway vehicles
Title: Traction of low pressure pneumatic tires in deformable terrain

Title: An investigation of a road-vehicle directional behavior under steady-state conditions
Title: Tire structural parameter analysis for road noise using an accurate FEM model
Title: Dynamic analysis of scooter (two wheeler) for ride evaluation
Title: Vision assisted tractor guidance for agricultural vehicles
Title: Dynamic stability of a cotton picker during its unloading cycle
Title: Independent versus axle suspension for on/off road vehicles
Title: Resilient band vehicle suspension systems
Title: Performance of dyna-bite traction system

Title: Axle failures induced by incorrect steering geometry for a four-wheel steer, off-highway vehicle
Title: Development of comprehensive suspension tester for large off-highway dump trucks
Title: Traction and stability tests of a highway mower
Title: Using virtual reality to test vehicle steering systems
Title: Off-highway vehicle ride comfort analysis
Title: Traction, compaction, yield and operating cost of alternative tire/traffic systems
Title: Soil compaction from front and rear tires of an MFWD tractor

Title: Comparison of two and four track machines to rubber tire tractors in prairie soil conditions
Title: A computer-aided system for evaluation of off-road wheeled vehicle mobility
Title: Kinematical models and emulation of multi-axle steering of off-highway vehicles with multi-axle

Title: Performance and use of tracks in agriculture—A review

Title: Combine tractive devices: Effects on soil compaction

Title: On the maneuverability and stability of turf work trucks

Title: Development of an updated brake chatter test for anti-brake chatter transmission/hydraulic fluids

Title: Belt and tire tractive performance

Title: A study on the meshing theory and cutting technology for rack and pinion steering gears with variable ratio

Title: Application of Taguchi method to simulation of articulated vehicle steering dynamics

Title: Computer modeling and simulation of a tracked log skidder with different grapple configurations

Title: Off-highway mine haul truck dynamics simulation

Title: Development of KUBOTA lawn & garden tractors manufactured in the USA

Title: Simulation of the loading dynamics of a log forwarder

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SAE International Truck and Bus Meeting and Exposition

Title: A multibody approach with graphical user interface for simulating truck dynamics

Title: Emulating the behavior of truck drivers in the longitudinal control of headway

Title: Improved heavy vehicle wheel dynamics model using MATLAB/SIMULINK

Title: A finite element modeling approach for stability analysis of partially filled tanker trucks

Title: Review of parameters affecting stability of partially filled heavy-duty tankers

Title: Verification of heavy truck EBS and ABS using MatrixX hardware in the loop tools

Title: Simulation-based ABS algorithm development

Title: Optimal suspension damping for improved driver- and road- friendliness of urban buses

Title: Anti-slosh damper design for improving the roll dynamic behavior of cylindrical tank trucks

Title: Optimal tank geometry to enhance static roll stability of partially filled tank vehicles

Title: Design of a multi-link independent front suspension for Class A motor homes

Title: Dynamics and roll stability of a loaded Class 8 tractor- livestock semi-trailer
1999-01-3756  Title: Light-truck aerodynamic simulations using a lattice gas-based simulation technique
1999-01-3757  Title: Influences of non-steady-state tire cornering properties on automobile shimmy
1999-01-3758  Title: Analysis of automotive handling based on tire cornering properties in non-steady-state conditions
1999-01-3764  Title: Steering performance evaluation—Heavy-duty highway tractor wander test
1999-01-3765  Title: Steering system effects on on-center handling and performance
1999-01-3781  Title: Heavy- and medium-duty vehicle suspension-related performance issues and effective analytical models for system design guide
2000-01-3413  Title: On the distribution of braking forces in road braking
2000-01-3415  Title: A simulation program for the braking characteristics of tractor-semitrailer vehicle
2000-01-3418  Title: Developing an artificial neural network for modeling heavy vehicle rollover

2000-01-3431  Title: Truck tire force and moment in cornering - braking - driving on ice, snow, and dry surfaces
2000-01-3432  Title: On vehicle testing of Michelin new wide-base tire
2000-01-3433  Title: Performance improvement of on-center regulation for large-sized vehicles
2000-01-3434  Title: Synthesis of multi-axle steering system of heavy-duty vehicle based on probability of steering angle
2000-01-3437  Title: Vehicle dynamics simulation for handling optimization of heavy trucks
2000-01-3446  Title: Flexibility effects of control arms and knuckle on suspension—A finite element versus rigid body comparative analysis
2000-01-3447  Title: New suspension design for heavy duty trucks: Dynamic considerations
2000-01-3448  Title: Uniform suspension response for commercial vehicles
2000-01-3449  Title: Development of a new front air suspension and steer axle system for on-highway commercial vehicles
2000-01-3450  Title: The design of a Sterling heavy truck for the Pike's Peak International Hillclimb
2000-01-3451  Title: Implementation of a practical semi-active damper on a combat support vehicle
2000-01-3452  Title: Composite compression C springs and light independent suspension for trucks, buses, cars and trains

2000-01-3460  Title: Influencing dynamic handling response with manipulation of advanced all-wheel-drive systems
2000-01-3464  Title: Traction control applications in engine control
2000-01-3475  Title: Commercial drivers' subjective rating of stopping capability of air-braked vehicles
2000-01-3477  Title: Directional dynamics of a partly-filled tank vehicle under braking and steering
<table>
<thead>
<tr>
<th>Title</th>
<th>Year</th>
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<tr>
<td>Directional response and yaw stability of articulated log-hauling trucks</td>
<td>2000-01-3478</td>
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<tr>
<td>Parametric study of leveling system characteristics on roll stability of trailing arm air suspension for heavy trucks</td>
<td>2000-01-3480</td>
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<td>Heavy vehicle stability notification and assistance</td>
<td>2000-01-3481</td>
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<td>A method determining the dynamic rollover threshold of commercial vehicles</td>
<td>2000-01-3492</td>
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<td>Numerical simulation on the aerodynamic characteristics around corner vane of a heavy-duty truck</td>
<td>2000-01-3499</td>
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<td>External flow analysis of a truck for drag reduction</td>
<td>2000-01-3500</td>
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<td>Computational simulations for the external aerodynamics of heavy trucks</td>
<td>2000-01-3501</td>
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<td>Freightliner/MeritorWABCO roll advisory and control system</td>
<td>2000-01-3507</td>
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<td>CamLaster™—A new drum brake for North America</td>
<td>2000-01-3508</td>
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<td>A new generation of vibration isolation for the conventional truck cab</td>
<td>2000-01-3515</td>
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<td>Comfort and vibration study of a tractor and trailer combination using simulation and experimental approaches: The jumping ride behavior</td>
<td>2000-01-3517</td>
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<td>A unique approach to all-wheel-drive vehicle dynamics model simulation and correlation</td>
<td>2000-01-3526</td>
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<td>Development of a 4-point-air cab suspension system for conventional heavy trucks</td>
<td>2001-01-2708</td>
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<td>Field testing of proposed tridem truck/triaxle trailer configurations</td>
<td>2001-01-2709</td>
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<td>An end-user's guide to commercial vehicle measurements: Interpreting dynamic and structural tests outside the lab</td>
<td>2001-01-2712</td>
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<td>Roll over prevention based on state-of-the-art ABS systems</td>
<td>2001-01-2727</td>
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<td>Improved drum brake performance prediction considering coupled thermal and mechanical effects</td>
<td>2001-01-2728</td>
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<td>Approach of debugging control laws of ABS combined with hardware-in-the-loop simulation and road experiment</td>
<td>2001-01-2729</td>
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<td>Self-optimizing brake control design for commercial vehicles</td>
<td>2001-01-2731</td>
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<td>The effect of kingpin inclination angle and wheel offset on medium-duty truck handling</td>
<td>2001-01-2732</td>
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<td>Feasibility of modifying an existing semi-trailer air suspension into an anti-rollover system</td>
<td>2001-01-2733</td>
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<tr>
<td>Validation of ADAMS® models of two USMC heavy logistic vehicle design variants</td>
<td>2001-01-2734</td>
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<tr>
<td>Experimental and computational investigation of Ahmed body for ground vehicle aerodynamics</td>
<td>2001-01-2742</td>
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Title: A two-dimensional external aerodynamics tool (EAT) for simulating airflow around tractor-trailer combinations

Title: The impact of aerodynamics on vehicle performance in a Formula SAE racing style vehicle

Title: Evaluation of brake system performance for transit bus operation and maintenance

Title: Development of a multi-body dynamic model of a tractor- semitrailer for ride quality prediction

Title: Cab suspensions for trucks: Development process and available tools

Title: Effect of heavy vehicle suspension designs on dynamic road loading—A comparative study

Title: Application of modal analysis and operating deflection shapes on the study of trucks and buses dynamic behavior

Title: Co-simulation of driveline torque bias controls

Title: International Truck and Engine High Performance Vehicle driveability—Ride and handling

Title: A ride comfort design sensitivity analysis of a city bus

Title: Wet disc brakes for off-highway vehicles

Title: The transient directional response of full trailers

Title: A computer-based study of the yaw/roll stability of heavy trucks characterized by high centers of gravity

Title: The importance of maintaining air brake adjustment

Title: Rolling resistance measurements of new and retreaded truck tires

Title: The wind tunnel testing of heavy trucks to reduce fuel consumption

Title: Aspects of over-the-road testing of truck aerodynamic drag reducing devices

Title: Commercial vehicle ride comfort

Title: Tractor and trailer brake system compatibility

Title: Anti-lock braking system (ABS) with integrated drive slip control (ASR) for commercial vehicles

Title: State of the art and future prospects of braking control in Europe

Title: Truck brakes —European style

Title: The effect of Ackerman steering correction upon front tire wear of medium duty trucks

Title: Bosch-ABS —designed for the user
Title: Progress of the WABCO ABS for commercial vehicles in the North American market
Title: Analysis and control of brake noise
Title: Front wheel suspension for buses and coaches
Title: Electronically controlled steering systems for line haul vehicles
Title: Developing ABS for freightliner vehicles

Title: Traction control (ASR) for commercial vehicles, a further step towards safety on our roads
Title: 1988 Chevrolet/GMC full-size pickup truck aerodynamics
Title: Aerodynamics and fuel economy—on-highway experience
Title: Active four-wheel-steering design for the blazer XT-1
Title: A new hardware and safety concept for ABS/ASR systems

Title: The braking performance of commercial vehicles while cornering with and without an anti-lock system
Title: Measurement of heavy vehicle suspension roll-stability properties and a method to evaluate overall stability performance
Title: Stability of a one box type vehicle in a cross-wind—An analysis of transient aerodynamic forces and moments

Title: Influence of tank design factors on the rollover threshold of partially filled tank vehicles
Title: A review of active suspension control for on and off-highway vehicles

Title: Directional dynamics considerations for multi-articulated, multi-axled heavy vehicles
Title: A contribution on the application of downhill driving brakes
Title: Heavy duty vehicle dynamics related to braking, steering and tyres—Swedish research and proposals by VTI
Title: Heavy vehicle braking—U.S. versus Europe
Title: Heavy duty truck dynamics and simulations
Title: High performance steering for the 90s
Title: Experimental aerodynamic drag reduction studies on bus coaches of India
Title: Disc brakes for heavy duty trucks in Japan

Title: The compatibility of air disc brakes and S-cam brakes installed on combination vehicles
Title: Comparison of pneumatic and hydraulic disk brakes for heavy duty application
Title: The introduction of air disc brakes for trucks and buses in Europe
Title: A new range of air disc brakes for 17.5", 19.5" and 22.5" wheels (commercial vehicle class 4 to 8)

Title: Air disc brakes realization during the development and application introduction

Title: Performance comparison of drum and disc brakes for heavy duty commercial vehicles

Title: A new ABS with integral automatic traction control for air-braked trucks and buses

Title: SAE J1922 data link control of electronic engine torque applied to automatic traction control

Title: Bendix four-wheel antilock brake system for four-wheel drive vehicles

Title: Truck brake block swell, growth, and thermal instability

Title: New developments in drum brake analysis

Title: Extended service 16.5 inch brake design for heavy commercial vehicles

Title: Development of a medium-duty truck with a mechanical linkage type four-wheel steering system

Title: A multi-axle steering system for straight trucks

Title: Development of directional stability criteria for an early warning safety device

Title: Ride comfort optimization for commercial trucks

Title: Influence of vehicle body torsional stiffness on vehicle roll characteristics of medium-duty trucks

Title: The influence of tire deformation on ride comfort of a truck

Title: Increased stability of twin trailers

Title: Control of active suspension with parameter uncertainty and non-white road unevenness disturbance input

Title: Methods for eliminating jerk and noise in semi-active suspensions

Title: Road vehicle dynamics of log hauling combination trucks

Title: Electronically controlled air suspension (ECAS) for commercial vehicles

Title: Semi-active heave and roll control for large off-road vehicles

Title: The optimum designing of riding comfort by application of "Taguchi methods"

Title: Inertial damping—A vehicle suspension design tool

Title: Development of a slow-acting active control pneumatic suspension system for heavy vehicle applications

Title: Measurement of radial truck tire dry cornering characteristics

Title: The handling characteristics of European intercity buses

Title: Directional dynamics of a tractor-semitrailer with self- and forced-steering axles
Title: Advanced commercial vehicle steering systems, variants and development trends

Title: Tractive torque steer for on-center stability/handling augmentation with controlling differential gear for large-sized vehicles—A comparison with passive rear-axle steer

Title: Steer-restoring torque controlled driving simulator for developing steering road feel

Title: Optimum ackeran for improved steering axle tire wear on trucks

Title: Non-linear FEM analysis of the trunnion suspension system

Title: Objectives of the New Zealand heavy vehicle brake code

Title: Roll-stability performance of heavy-vehicle suspensions

Title: The directional response of log hauling truck - doglogger

Title: Bogie spring fatigue damage—A function of static displacement

Title: Evaluation of braking strategies on downgrades

Title: Air brake inspections of five-axle combinations

Title: Jacobs new engine brake technology

Title: The present status of electro-magnetic retarders in commercial vehicles

Title: Engine braking systems and retarders—An overview from an European standpoint

Title: ZF retarder in commercial vehicles

Title: Demand criteria on retarders

Title: State of development and future prospects of hydrodynamic brakes for trucks and busses

Title: Permanent-magnet-type-retarder in commercial vehicles

Title: Dynamic pavement loads and tests of road-friendliness for heavy vehicle suspensions

Title: Relative performance of wide base and conventional truck tires

Title: Optimal active vehicle suspensions with full state feedback control

Title: Performance of a fail-safe active suspension with limited state feedback for improved ride quality and reduced pavement loading in heavy vehicle

Title: MVMA/NHTSA/SAE heavy truck round robin brake test

Title: Brake by wire for commercial vehicles

Title: Electronic control of braking systems - legislation (ECE R.13)

Title: A low cost tracked vehicle steering system design providing pivot turning and infinitely variable turning radius

Title: Development of a simulation for assessment of ride quality of tractor semi-trailers
Title: Operating vehicle roll stability
Title: Directional stability analysis of logging trucks by a yaw roll model
Title: Steering control for roll mode damping augmentation in tall road vehicles
Title: The McLaughlin Truck/Trailer Control System
Title: Estimation of dynamic rollover threshold of commercial vehicles using low speed experimental data
Title: Brake squeal—A self-exciting mechanism with constant friction
Title: Aerodynamic and mechanical drag characteristics of light trucks and truck-trailer combinations
Title: Influence of heavy vehicle suspensions on ABS performance
Title: Uniformity of truck tire/wheel assemblies on original equipment
Title: Configuration of heavy trucks with liftable axles
Title: Characterizing the road-damaging dynamics of truck tandem suspensions
Title: Effect of rear-axle steering on vehicle controllability and stability of a medium-duty truck
Title: Analysis of intelligent suspension systems for commercial vehicles
Title: Compliance steer and road holding of rigid rear axle for enhancing the running straightness of large sized vehicles
Title: Truck development trends in ride behavior
Title: Optimizing medium duty truck ride and handling: A cooperative effort with truck designers
Title: Tire deflection influence on rear-axle torque
Title: Benefits and effects of central tire inflation on USDA Forest Service vehicles
Title: Simulation and investigation of shimmy on a light truck independent front suspension
Title: Active roll control of a semi-trailer
Title: Investigations into alternative suspension for commercial vehicles
Title: Central tire inflation: USDA Forest Service implementation plans and their impact
Title: Operational testing of central tire inflation systems proves the benefits of low tire pressure in logging operations
Title: General inflation from a truck tire perspective
Title: Studies of hydrostatic steering system of armored fighting vehicles
Title: Application of the Eaton® Tire Pressure Control System to the commercial truck
Title: A new method development to predict brake squeal occurrence
Title: The new air brake system technology
Title: Real-time simulation of trucks for hardware-in-the-loop applications
Title: Results and economical aspects of simulation systems evaluating the braking and steering performance of commercial vehicles
Title: Optimization of a tractor-semitrailer passive suspension using covariance analysis technique
Title: A computer simulation analysis of road dynamics of log hauling trucks
Title: Optimization of passive and semi-active heavy vehicle suspensions
Title: Four-wheel-steering system for medium-duty trucks
Title: Optimal control of electromagnetic brake retarders
Title: A robust backward steering controller design for combination vehicles
Title: Ride comfort and roll characteristics of tandem-axled trucks
Title: Investigation of a limited-state active suspension for articulated heavy vehicles
Title: All-wheel and four-wheel-drive vehicle systems
Title: Heavy truck suspension damper performance for improved road friendliness and ride quality
Title: Computer-based analysis of the dynamic performance of log hauling trucks
Title: Development of heavy vehicle dynamic stability analysis model using MATLAB/SIMULINK
Title: Influence of partition location on the braking performance of a partially-filled tank truck
Title: A survey of 4WD traction control systems and strategies
Title: Passenger car 4WD—Systems for light trucks?
Title: American Automobile Manufacturers Association heavy truck brake tire test
Title: Commercial vehicle brake testing—Part 1: Visual inspection versus performance-based test program
Title: Commercial vehicle brake testing—Part 2: Preliminary results of performance-based test program
Title: Development of fuzzy logic, ABS control for commercial trucks
Title: All-wheel steering system for heavy truck applications
Title: Truck dynamics—Theory into practice
Title: Reduction of dynamic pavement loads of heavy vehicles through optimal suspension damping and axle vibration absorber
Title: Improving ride quality on the cab suspension of a heavy-duty truck
Title: Heavy truck suspension dynamics: methods for evaluating suspension road friendliness and ride quality

Title: Truck tire wet traction: effects of water depth, speed, tread depth, inflation, and load

Title: Directional performance and yaw stability of articulated combination trucks

Title: An investigation into the aerodynamics of the external flow around a bus (Daewoo model)

Title: Gain/phase control front steering, rear axle steering and compliance steer control for trucks and buses

Title: Reducing driving fatigue by improving heavy vehicle directional stability

Title: Rear axle steering system for trucks and buses

Title: Study of a novel control method of a steering system for a radio-controlled truck

Title: Commercial vehicles with intelligent rear axle steering systems

Title: Steering column/instrument panel NVH analysis in full-size pickup trucks using MSC/NASTRAN—Part 1

Title: Advanced collision avoidance demonstration for heavy-duty vehicles

Title: Air suspension factors in driveline vibration

Title: An overview of heavy vehicle brake system test methods

Title: The development of the ZQ8 sport handling suspension for General Motor's mid-size pickup trucks

Title: Dynamic simulation of suspension mechanisms using the displacement matrix method

Title: Radar-based adaptive cruise control for truck applications

Title: Reliable determination of multi-axial road loads and tire deformations on buses and heavy trucks for the design and proof out

Title: The correlation of heavy vehicle performance measures

Title: A generalized theoretical model of tire cornering properties in steady-state condition

Title: A theoretical model of non-steady-state tire cornering properties and its experimental validation

Title: Power consumption in ride of a combat support vehicle slow-active suspension

Title: Low bandwidth active cab suspension

Title: Optimized ride control of heavy vehicles with intelligent suspension control

Title: A review of European steering column technology
Title: The effect of deck spoilers and two-car interference on the body pressures of race cars
Title: Aerodynamic development of a successful NASCAR Winston Cup race car
Title: The development and manufacture of a roof-mounted, aero flap system for race car
Title: Lateral response of a Formula SAE race car
Title: Off track—Frame and suspension tuning (FAST)
Title: Simulation and analysis of suspension and aerodynamic interactions of race cars
Title: High performance braking—The design and application of liquid-cooled brake calipers
Title: Measurement of Formula One car drag forces on the test track
Title: The aerodynamic optimization of a successful IMSA GT race car
Title: Aerodynamics and possible alleviation of top fuel dragster "Blow Over"
Title: Effects of wing adjustment mechanisms on the aerodynamics of an open wheel racing car
model
Title: Analysis and correlation using lap time simulation—Dodge Stratus for the North American
Touring Car Championship
Title: A tool for lap time simulation
Title: Dynamic simulation of late model car performance on a dirt track
Title: Effects of suspension geometry and stiffness asymmetries on wheel loads during steady
cornering for a Winston Cup car
Title: A comparison of modern racing dampers
Title: Semi-active strategies for racing car suspension control
Title: Design of a single seater racing car suspension system
Title: Evaluation of motorcycle maneuverability with the optimal maneuver method
Title: Suspension system testing and tuning with the use of a four-post rig
Title: Understanding race tires
Title: The grip evaluation and management device
Title: The effects of local spring perch flexibility on suspension geometry of a Winston Cup race car
Title: Short-long arm suspension system non-linearities and analysis
Title: Development of race car testing at the Langley full-scale tunnel
Title: Viscous-flow simulation of an open-wheel race car
Title: Experimental study of open-wheel race-car front wings
Title: The effects of chassis flexibility on roll stiffness of a Winston Cup Race Car
Title: Asymmetric roll centers
Title: Innovative computer technology in professional motorsports

SAE Noise and Vibration Conference and Exposition

2001-01-1402 Title: Assessment of a vehicle concept finite-element model for predicting structural vibration
2001-01-1441 Title: Transfer path analysis of structure-borne shock absorber noise in a passenger car
2001-01-1445 Title: A stiffness optimization procedure for automobile rubber mounts
2001-01-1447 Title: Application of elastomeric components for noise and vibration isolation in the automotive industry
2001-01-1469 Title: Optimal bonding thickness for vehicle stiffness

2001-01-1474 Title: A virtual car: Prediction of sound and vibration in an interactive simulation environment
2001-01-1481 Title: Chassis dynamometer simulation of tire impact response
2001-01-1528 Title: Tire and car contribution and interaction to low-frequency interior noise
2001-01-1554 Title: The application of direct body excitation toward developing a full-vehicle objective squeak and rattle metric
2001-01-1569 Title: Some factors in the subjective evaluation of laboratory simulated ride
2001-01-1571 Title: Factors affecting truck driver’s perceived comfort
2001-01-1572 Title: Road vibration investigation using the Ford vehicle vibration simulator
2001-01-1579 Title: Polytopic modeling and state observer synthesis for suspension system with variant damping and stiffness
2001-01-1580 Title: Polytopic bilinear system modeling and nonlinear $H_\infty$ control design for semi-active suspension system
2001-01-1581 Title: Optimizing vehicle response in a combined ride and handling full car model by optimal control strategies
2001-01-1582 Title: Robust analysis of vehicle suspension system uncertainty

2001-01-1598 Title: Effects of air and road surface temperature on tire pavement noise on an ISO 10844 surface
2001-01-1599 Title: A dynamometer for automobile brake squeal study
2001-01-1600 Title: A new analysis method for brake squeal—Part I: Theory for modal domain formulation and stability analysis

2001-01-1602 Title: Analysis of instabilities and power flow in brake systems with coupled rotor modes
Title: Advances in complex eigenvalue analysis for brake noise
Title: Investigation of disc brake squeal via sound intensity and laser vibrometry
Title: Disc brake rotor squeal suppression using dither control
Title: Operational spindle load estimation methodology for road NVH applications
Title: Steering wheel vibration diagnosis
Title: Interactive design of off-highway vehicle suspensions
Title: Suspension related low frequency rear drum brake noise
Title: Brake judder analysis: case studies
Title: Identification and elimination of steering systems squawk noise

SAE Passenger Car Meeting and Exposition

Title: Development of a front-wheel-drive car
Title: Transversely apportioned brake system
Title: A simplified method for the identification of vehicle suspension parameters
Title: Vehicle controllability in a pavement/shoulder edge climb maneuver
Title: Army experience with silicone brake fluids
Title: Silicone brake fluids—show us the hardware!
Title: Conventional brake fluids—state of the art
Title: An effective aerodynamic program in the design of a new car
Title: The concept of suspension and steering system for the new Datsun 280ZX
Title: A speed sensitive variable assistance power steering system
Title: Automobile braking energy, acceleration and speed in city traffic
Title: Subjective evaluation and vehicle behavior in lane-change maneuvers
Title: Static stability and control of the automobile utilizing the moment method
Title: Effects of crosswinds on vehicle response—full-scale tests and analytical predictions
Title: Handling, braking, and crash compatibility aspects of small, front-wheel drive vehicles
Title: Comparison of transient response test procedures for motor vehicles
Title: Experimental examination of transient directional response
Title: Analysis of part-time four-wheel drive vehicle
Title: Theoretical model of a vehicle using vector analysis and Euler's rigid body dynamics
Title: Transient dynamic behaviour of a vehicle by mathematical simulation
Title: The development of the suspension system used on the Nissan Stanza—a new front-wheel-drive compact car
Title: Nonlinear dynamic response of four wheel steering automobiles to combined braking and steering commands in collision avoidance maneuvers

Title: The equations of lateral motion of the two degree-of-freedom model of the four-wheeled road vehicle

Title: Optimal stability of vehicle control

Title: Four parameter evaluation method of lateral transient response

Title: Design of two-degree-of-freedom control system for active front-and-rear-wheel steering

Title: Development of the full active suspension by Nissan

Title: Integrated control system between active control suspension and four wheel steering for the 1989 CELICA

Title: 1991 Chrysler mini van AWD vehicle system

Title: Development of new Toyota electronic modulated suspension two concepts for semi-active suspension control

Title: Dynamic simulation of suspension load for passenger car with low profile tires

Title: Advice control strategy for improved handling and stability

Title: Digital active suspension

Title: Magic numbers in design of suspensions for passenger cars

Title: Development of four wheel steering system using yaw rate feedback control

Title: An atlas of linkages for independent suspensions

Title: Transient and steady state performance characteristics of a two-wheel-steer and four-wheel steer vehicle model

Title: Multipurpose models of vehicle dynamics for controller design

Title: The effects of suspension stiffness on handling responses

Title: Stability and maneuverability problems of ATV's

Title: A safer ATV

Title: Vehicle ride quality —measurement and analysis

Title: Vehicle dynamics synthesis techniques for the integration of chassis systems in total vehicle design

Title: The development tool for the real-time fuzzy control system on a vehicle

Title: Passive versus active and semi-active suspension from theory to application in North American industry
Title: An experimental procedure for estimating ride quality for passive and semi-active suspension automobiles
Title: An optimisation technique for vehicle suspensions with the vibration dose value as optimisation parameter
Title: Integrated vehicle development
Title: Study of tire model consisting of theoretical and experimental equations for vehicle dynamics analysis

Title: Kinematic and dynamic comparison of double A-arm and McPherson strut suspension systems

Small Engine Technology Conference and Exposition

Title: Motorcycle suspension development using ride comfort analysis with a laboratory test system

Subzero Engineering Conditions Conference and Exposition

Title: Effect of texture of iced road surface on characteristics of ice and snow tires
Title: Mobility of four track steering vehicles on snow surface
Title: New information on the differences between studded and unstudded tires
Title: Experimental car and trailer axle cornering characteristics at low friction conditions

Vehicle Navigation and Instrument Systems

Title: Neural network approaches for lateral control of autonomous highway vehicles

Vehicle Thermal Management Systems Conference and Exhibition

Title: Heat flow on disc brakes

West Coast International Meeting and Exposition

Title: A test facility for the measurement of heavy vehicle suspension parameters
Title: The dynamic response of multiply-articulated truck combinations to steering input

Title: Improved stability and handling of truck combinations with the double drawbar dolly
Title: The influence of size and weight variables on the roll stability of heavy duty trucks

X International Conference on Vehicle Structural Mechanics and CAE

Title: Brake squeal analysis by using nonlinear transient finite element method
Title: Road load simulation using effective road profile
Title: A hybrid road loads prediction method with full vehicle dynamic simulation
Title: Computational issues in the simulation of incompressible flows using the lattice Boltzmann method