

SAE Papers

Die SAE (Society of Automotive Engineers) ist ein 1905 in den USA gegründeter Verein mit mehr als 138000 Ingenieuren vergleichbar dem [VDI](#) (Verein Deutscher Ingenieure), beschränkt sich aber auf den Bereich der Mobilitätsindustrie. Neben der Ingenieursweiterbildung und diversen Publikationen wird die Erarbeitung von Standards und Normen vorangetrieben.

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Kontakt

Internationaler Hauptsitz:

SAE International
400 Commonwealth Drive
Warrendale, PA 15096-0001 USA
fon: +1.724.776.4841
fax: +1.724.776.0790
eMail:
web: <http://www.sae.org/>

Europa-Vertretung:

280 Boulevard du Souverain
1160 Brussels, Belgium
fon: +32.2.789.23.44
eMail: info-sae-europe-at-associationhq.com

web: <http://de.sae.org/>

Vehicle Accident Reconstruction: Technology and Animation

Auf dem jährlich abgehaltenen Weltkongress beschäftigt sich eine kleine Untersektion mit Unfallrekonstruktion. Früher brachte die SAE jährlich einen Tagungsband *Vehicle Accident Reconstruction, Technology and Animation* heraus. Dieser hatte etwa DIN-A4-Format, war daumendick und kostete rund \$100.

SAE Accident Reconstruction Technology Collection

Etwa seit dem Jahr 2000 gibt es die komplette Sammlung sämtlicher jemals eingereichter Papers als Sammlung auf CDs. Die Beiträge bis einschließlich 1998 sind meist gescannt, teilweise allerdings in miserabler Qualität (Stand 2002). Die Beiträge ab 1999 wurden direkt in PDFs konvertiert. Als Benutzeroberfläche für den Zugriff auf die Papers dient Folio Views (jetzt Fast Folio), das die Suchergebnisse sehr ansprechend jeweils mit Abstract darstellt und direkt zu den PDFs verlinkt. Neben der Volltextsuche sind die Papers auch verschlagwortet.

Die Sammlung kann man [hier](#) bestellen. Der Download des auf der gleiche Webseite angebotenen freien Demos lohnt sich kaum. Man lädt im Wesentlichen das Produkt Folio Views herunter, mit einigen wenigen Beispieldaten aus sehr verschiedenen Betätigungsfelder des SAE. (PDFs sind erst recht nicht dabei.) Man gewinnt über den Download (für den man sich als Benutzer registrieren lassen muss) bestenfalls einen Eindruck von der gekonnt gestalteten Oberfläche von Folio Views.

[Hier](#) kann die Sammlung mit über 1900 (Stand 02/2015) SAE-papers aus über 50 Jahren zum Fachgebiet *Accident Reconstruction* käuflich erworben werden kann. Die Sammlungen sind ab 2010 auch erhältlich mit Beschränkung auf das jeweilige Kalenderjahr:

- 2010 (25 papers): <http://collections.sae.org/coll-tp-00008/>
- 2011 (9 papers): <http://collections.sae.org/coll-tp-00134/>
- 2012 (29 papers): <http://collections.sae.org/coll-tp-00253/>
- 2013 (22 papers): <http://collections.sae.org/coll-tp-00327/>
- 2014 (15 papers): <http://collections.sae.org/coll-tp-00393/>
- 2015

SAE Stapp Car Crash Conference Proceedings

Das Werk erscheint auf CDs sowie als gebundene Ausgabe. Die CDs - zumindest die mir vorliegende Version aus 1996 - enthalten einen Viewer ("SAE Move"), mit dem man die Daten (es handelt sich um gescannte Seiten) auf den CDs lesen kann. Diese US-amerikanische Konferenz wird wohl seit 1955 einmal jährlich abgehalten. Die aktuelle (12/2007) CD-Sammlung [Stapp CD 2006](#) soll mehr als 1.150 technical papers von 1966 - 2006 enthalten und kostet \$378,-.

[SAE Standards](#)

Mittlerweile (Stand 2015) gibt es mehr als 2600 Normen für Landfahrzeuge ("Ground Vehicle Standard", GV-standard auch bekannt als J-Report). Bekanntestes Beispiel dürfte die Klassifizierung von Motorölen nach SAE J300 sein.

- <http://www.sae.org/standards/>
- <http://de.sae.org/standards/>

SAE Technical Papers

Freitextsuche in Titel und abstract: <http://papers.sae.org/browse/> oder <http://www.sae.org/search/>
Die SAE-Papers sind fortlaufend nummeriert, sodass einzig die Angabe der Nummer das Paper eindeutig bezeichnet. Die Nummerierung beginnt stets mit der Jahreszahl, die bis 1999 zweistellig war. Die nachfolgende Auflistung ist nicht annähernd vollständig. Wie bei der Beschreibung der Artikel im [VuF](#) ist die Inhaltsangabe zum jeweiligen Paper nicht einfach eine Übersetzung des Abstracts, sondern eine Zusammenfassung aus Sicht des jeweiligen Wiki-Autors.

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- [650491](#) The Dynamic Stiffness of a Pneumatic Tire Model

1966

- [660080](#) Auto-Pedestrian Collision Experiments

1968

- [680016](#) Analytical Approach to Automobile Collisions

1971

- [710855](#) Strength and response of the human neck. Mertz, H.J.; Patrick, L.M.
- [710861](#) Smaller Vehicle versus Larger Vehicle Collisions

1972

- [720284](#) Data Retrieval by Accident Reconstruction for Safer Vehicle Design
- [720961](#) Development and Validation of a Computer Simulation of a Crash Victim in Three Dimensions
- [720968](#) Car Crash Collision Types and Passenger Injuries in Dependency upon Car Construction (Field Studies of the German Automobile Insurance Companies)

1973

- [730980](#) Computer Program for Reconstruction of Highway Accidents

1974

- [740299](#) Consistency Study for Vehicle Deformation Index
- [740565](#) Energy Basis for Collision Severity
- [741177](#) Experiment and Accident: Comparison of Dummy Test Results and Real Pedestrian Accidents
- [741179](#) Results of Selected Applications to Actual Highway Accidents of [SMAC](#) Reconstruction Program

1975

- [750891](#) An Historical Overview of Research in Traffic Accident Investigation Activities
- [750893](#) A Comparison of Results Obtained With Different Analytical Techniques for Reconstruction of Highway Accidents
- [750894](#) Automated Accident Reconstruction
- [751154](#) Car-to-Car Side Impacts: Computerized Crash Reconstruction

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1976

- [760030](#) Frequency Response of Tires-Slip Angle Lateral Force
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- [760776](#) Computer Aids for Accident Investigation

1977

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- [770014](#) An Impact Moment Coefficient for Vehicle Collision Analysis
- [770015](#) Computer Simulation of Car-To-Car Collisions
- [770103](#) Human Factors in Motorcycle Accidents
- [770591](#) Dynamic Validation of a Computer Simulation for Vehicle Crash
- [770920](#) Collision Characteristics and Injuries to Motorcyclists and Moped Drivers

1978

- [780670](#) Mathematical Modeling of Occupant Biomechanical Stress Occuring During a Side Impact
- [780902](#) The Accuracy and Usefulness of [SMAC](#)
- [785033](#) Truck Collisions With Personal Motor Vehicles and Starting Points for the Improvement of Personal Protection
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1979

- [790134](#) X-Ray Study of the Human Neck During Voluntary Motion
- [790994](#) Bus Roll Over Accident Simulation
- [791030](#) A 30 mph Front/Rear Crash with Human Test Persons
- [791025](#) Further Validation of the Simulation Model of Automobile Collisions Program

1980

- [800174](#) Microcomputer Programs Useful for Aspects of Accident Reconstruction
- [800354](#) Comparison of Visual Recognition Time of Analogue and Digital Displays in Automobiles
- [800523](#) Evaluation of the Brake-Force Distribution and Its Influence on the Braking Performance of light Commercial Vehicles
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- [801314](#) A Review of Different Kinematic Forms in Two-Wheel- Accidents-Their Influence on Effectiveness of Protective Measures

1981

- [810012](#) Motor Vehicle Non-Crash Fires
- [810473](#) Development and Evaluation of the [CRASH](#) 2 Program for Use under European

Conditions

- [810475](#) Static-to-Dynamic Amplification Factors for Use in Lumped-Mass Vehicle Crash Models
- [811011](#) Twenty-Five Years of [Stapp](#) Car Crash Conferences
- [811023](#) Risk and Effectiveness of Seat Belts in Munich Area Automobile Accidents
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- [811425](#) Aerodynamic Effects to a Bicycle Caused by a Passing Vehicle

1982

- [820079](#) Computer Simulation of Suspension Abuse Tests Using ADAMS
- [820140](#) Three-Wheel Passenger Vehicle Stability and Handling
- [820170](#) A Graphic Computer Simulation of the Pedestrian Vehicle Impact
- [820171](#) A Comparison between Two Different Computer Simulations in Measuring the Vehicle/Pedestrian Impact
- [820246](#) The Role of the Vehicle Front End in Pedestrian Impact Protection
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1983

- [830053](#) Reconstruction of Actual Car-Pedestrian Collisions with Dummy and Cadavers
- [830060](#) [MADYMO](#) Pedestrian Simulations
- [830186](#) Comparison of Pedestrian Kinematics and Injuries in Staged Impact Tests with Cadavers and Mathematical 2D Simulations
- [830189](#) Experimental Reconstruction and Mathematical Modelling of Real World Pedestrian Accidents
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- [830633](#) Some Vehicle Factors Related to Type and Severity of Pedestrian Injuries
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- [831622](#) The Trajectories of Pedestrians, Motorcycles, etc., Following a Road Accident

1984

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- [840396](#) Diagnosis of Seat Belt Usage in Accidents
- [840855](#) An Overview of Major Occupant Simulation Models
- [840856](#) The Daimler-Benz Mathematical Isohumane Simulation Model (ISM)
- [840857](#) Three Applications of a Mathematical Model, PRAKIMOD, in Frontal Collisions
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- [856113](#) Experimental and Mathematical Simulation of Pedestrian-Vehicle and Cyclist-Vehicle Accidents
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- [860204](#) Methodologies and Measuring Devices to Investigate Steering Systems in Crashed Cars
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- [861421](#) Photogrammetric Mapping of Vehicle Deformations
- [861422](#) The Application of Photogrammetry to Accident Reconstruction
- [861894](#) A Revised Damage Analysis Procedure for the [CRASH](#) Computer Program

1987

- [870040](#) [CRASH](#) 3: Current Status
- [870045](#) An Overview of the Way EDCRASH Computes [Delta-v](#)
- [870046](#) The "IMPAC" Program for Collision Analysis
- [870047](#) Applicability of the EES-Accident Reconstruction Method with MacCar©
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- [871993](#) Energy Loss in Vehicle Collisions
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1988

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- [880064](#) Animated Reconstruction of Automobile Collisions Using [SMAC](#)
- [880066](#) Combining Scene Data with Trajectory Information for Effective Accident Simulation
- [880067](#) Minimum Guidelines for Efficiently Acquiring or Preserving Basic Information in a Motor Vehicle Accident
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- [881726](#) Experimental and Mathematical Car-Bicycle Collision Simulations
- [881767](#) Vehicle Inertial Parameters-Measured Values and Approximations
- [885076](#) 3-D Crash Analysis Using ADAMS

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- [890634](#) The Vocabulary of Accident Reconstruction
- [890635](#) A Comparison Study of Skid and Yaw Marks
- [890636](#) Effects of Change in Angular Velocity of a Vehicle on the Change in Velocity Experienced by an Occupant during a Crash Environment and the Localized Delta-v Concept
- [890638](#) SAE Tire Braking Traction Survey: A Comparison of Public Highways and Test Surfaces
- [890730](#) Nighttime Photography - Show It Like It Is
- [890731](#) Driver Perception Response Time
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- [890740](#) Further Validation of [EDCRASH](#) Using the [RICSAC](#) Staged Collisions

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- [890751](#) Experimental Simulation of Car/Pedestrian and Car/Cyclist Collisions and Application of Findings in Safety Features on the Vehicle
- [890755](#) Vehicle Occupant Crash Simulation Using Madymo Porsche Airbag 2d
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- [891254](#) The Analysis of the Rotational Behavior of Vehicles Using a Full Vehicle Model Simulation

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- [900098](#) CRASH3 Damage Algorithm Reformulation for Front and Rear Collisions
- [900099](#) Crush Energy Formulations and Single-Event Reconstruction
- [900101](#) A Comparison Between NHTSA Crash Test Data and [CRASH3](#) Frontal Stiffness Coefficients
- [900102](#) Further Validation of EDSMAC Using the [RICSAC](#) Staged Collisions
- [900103](#) Tire-Roadway Friction Coefficients on Concrete and Asphalt Surfaces Applicable for Accident Reconstruction
- [900129](#) Lateral Stiffness, Cornering Stiffness, and Relaxation Length of the Pneumatic Tire
- [900141](#) Visual Behavior of Novice Drivers as Affected by Traffic Conflicts
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- [900369](#) Vision and Visibility in Vehicular Accident Reconstruction
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- [900543](#) Remaining Injury Risk and Force Deflection Characteristics of Vehicles Front in Real World Accidents
- [900745](#) Collision Dynamics and Injury Causation in Motorcycle Accidents
- [900750](#) Some Aspects of Motorcycle-Vehicle Collision Reconstruction
- [902331](#) Application of the Injury Cost Scale (ICS) to Mercedes-Benz Accident Data

1991

- [910119](#) Stiffness Parameters for Vehicle Collision Analysis
- [910120](#) Rear Stiffness Coefficients Derived from Barrier Test Data
- [910123](#) Linear and Rotational Momentum for Computing Impact Speeds in Two-Car Collisions ([LARM](#))
- [910124](#) A Two-Dimensional Model of a "Falling" Vehicle
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- [910879](#) Advances in [MADYMO](#) Crash Simulations
- [912916](#) Considerations for a Neck Injury Criterion
- [916010](#) Compatibility Problems of Small and Large Passenger Cars in Head on Collisions

1992

- [920390](#) Energy Absorption and Load Transmission at Vehicle Frontal Collision
- [920480](#) Automobile Crash Modeling and the Monte Carlo Method
- [920583](#) The Variation of Static Rollover Metrics With Vehicle Loading and Between Similar

Vehicles

- [920584](#) A Statistical Analysis of Vehicle Rollover Propensity and Vehicle Stability
- [920585](#) An Investigation, Via Simulation, of Vehicle Characteristics that Contribute to Steering Maneuver Induced Rollover
- [920603](#) Modelling of Pre- and Post-Impact Phases of Vehicular Collisions
- [920604](#) Collision Speed Estimation Using a Single Normalised Crush Depth-Impact Speed Characteristic
- [920607](#) A Method for Quantifying Vehicle Crush Stiffness Coefficients
- [920757](#) Automated Animation for Human Subjects in the Crash Environment
- [921573](#) Dynamics of Low Speed Crash Tests with Energy Absorbing Bumper
- [921574](#) A Physician-Engineer's View of Low Velocity Rearend Collisions
- [921591](#) Pedestrian Involved Traffic Collision Reconstruction Methodology

1993

- [930100](#) An Evaluation of Various Viscous Criterion Computational Algorithms
- [930211](#) Automobile Bumper Behavior in Low-Speed Impacts
- [930653](#) Post-Impact Spin, 1968-1993
- [930654](#) Impact Model for Accident Reconstruction - Normal and Tangential Restitution Coefficients
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- [930895](#) Head Impact Reconstruction - [HIC](#) Validation and Pedestrian Injury Risk
- [930896](#) Reconstructing Collisions Involving Ice and Slippery Surfaces
- [930897](#) Measured Vehicle Inertial Parameters - [NHTSA](#)'s Data Through September 1992
- [930898](#) Estimating Crush Stiffness when Reconstructing Vehicle Accidents
- [930899](#) An Investigation into Vehicle Frontal Impact Stiffness, BEV and Repeated Testing for Reconstruction
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- [931842](#) Vehicle Restitution Response in Low Velocity Collisions
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- [933097](#) The Effect of Pre-Impact Braking on the Performance of Child Restraint Systems in Real Life Accidents and Under Varying Test Conditions
- [933103](#) Neck Injury Criteria for Children from Real Crash Reconstructions
- [933111](#) The Relationship Between [Delta-v](#) and Injury
- [933126](#) Deformation Characteristics and Occupant Load Capacity in Lateral Impacts for

Nearside Belted Front Car Passengers

- [933129](#) Computer Simulation of Impact Response of the Human Body in Car-Pedestrian Accidents
- [933133](#) Motorcycle Crash Test Modelling

1994

- [940532](#) Human Occupant Kinematic Response to Low Speed Rear-End Impacts
- [940564](#) Impact Center and Restitution Coefficients for Accident Reconstruction
- [940566](#) Conservation of Momentum Analysis of Two-Dimensional Colliding Bodies, With or Without Trailers
- [940567](#) Reference Cases for Comparison of Collision Algorithms Used in Accident Reconstruction
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- [942232](#) Influence of the Fronthood Length for the Safety of Pedestrians in Car Accidents and Demands to the Safety of Small Vehicles

1995

- [950131](#) Using ATB in Collision Reconstruction
- [950135](#) The Technique of Uncertainty Analysis as Applied to the Momentum Equation for Accident Reconstruction
- [950137](#) Evaluation of Vehicle Velocity Predictions Using the [Critical Speed Formula](#)
- [950139](#) Deceleration Factors on Off-Road Surfaces Applicable for Accident Reconstruction
- [950203](#) Collision Parameters from Real-Life Car/Motor Cycle Accidents A Basis for Future Standards
- [950306](#) Analysis of Simple Rollover Metrics
- [950309](#) The Design of a Vehicle Inertia Measurement Facility
- [950351](#) The Use of a High Resolution Accident Data Recorder in the Field
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- [950651](#) Lumped-Parameter Modeling of Frontal Offset Impacts
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- [950659](#) An Overview of the [HVE](#) Human Model

- [950865](#) Regulatory History of Automatic Crash Protection in [FMVSS 208](#)
- [950969](#) Braking Behaviour in Emergencies
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- [951895](#) Analysis of Lane Change Crash Avoidance
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- [952724](#) Human head and neck kinematics after low velocity rear end impacts - understanding "Whiplash"
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1996

- [960093](#) Delta-v Thresholds for Cervical Spine Injury
- [960228](#) A Novel Method for Distance and Relative Velocity Measurement in Rear-End Collision Warning System
- [960441](#) The Effect of Vehicle Mass in Car-to-Car Collisions
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- [960649](#) The Effect of Vehicle Rotation on the Occupants' [Delta-v](#)
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- [960885](#) Validation of PC-Crash - A Momentum-Based Accident Reconstruction Program
- [960886](#) The Collision and Trajectory Models of PC-CRASH
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- [960890](#) Three-Dimensional Reconstruction and Simulation of Motor Vehicle Accidents
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- [961017](#) Measurement of Motorcycle Slide Coefficients
- [961049](#) Digital Rectification of Reconstruction Photographs
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- [962439](#) Performance of Child Restraint Systems in Real-Life Lateral Collisions

1997

- [970942](#) Developing a Crush Profile Estimate by Balancing Impact Forces
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- [970945](#) Energy Supply and Time Dependence on Filament Deformation
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- [970949](#) [CRASH](#)-97 Refinement of the Trajectory Solution Procedure
- [970951](#) A comparison of moment of inertia estimation techniques for vehicle dynamics simulation
- [970952](#) An Evaluation of Rectified Bitmap 2D Photogrammetry with [PC-Rect](#)
- [970954](#) Drag and Steering Effects of Under Inflated and Deflated Tires
- [970955](#) Project Y.A.M. (Yaw Analysis Methodology) Vehicle Testing and Findings - Victoria Police, Accident Investigation Section
- [970956](#) Determination of Bumper Characteristics Using Prototype Moving Barriers
- [970957](#) An Analytical Assessment of the [Critical Speed Formula](#)
- [970958](#) Validation of the EDVSM 3-Dimensional Vehicle Simulator
- [970960](#) Effects of Restitution in the Application of Crush Coefficients
- [970961](#) [RICSAC](#)-97 A Reevaluation of the Reference Set of full Scale Crash Tests
- [970962](#) Avoiding the Emerging Pedestrian: a Mathematical Model
- [970963](#) Motorcycle Slide to Stop Tests
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- [971108](#) Validation of Newtonian Reconstruction ([CRASHEX](#)) Against Simulations of [RICSAC](#) Staged Collisions
- [971147](#) Formulas for Estimating Vehicle Critical Speed From Yaw Marks - A Review
- [971148](#) Vehicle Critical Speed Formula - Values for the Coefficient of Friction - A Review
- [973282](#) The Compatibility of Tractor/Trailer-Combinations During Braking Maneuvers
- [973284](#) Vehicle Dynamics Control for Commercial Vehicle

1998

- [980018](#) Documenting Scientific Visualizations and Computer Animations Used in Collision Reconstruction Presentations
- [980019](#) Using Imported Objects And Images in HVE
- [980021](#) Modeling of Vehicle Rollover and Evaluation of Occupant Injury Potential Using [MADYMO](#)
- [980022](#) Characteristics of Soil-Tripped Rollovers
- [980023](#) Speed Change Determination in Low Speed Impacts - A Comparison of Techniques
- [980024](#) A Method for Determining Crush Stiffness Coefficients from Offset Frontal and Side Crash Tests
- [980025](#) Crush Energy and Planar Impact Mechanics for Accident Reconstruction
- [980026](#) System-Based Energy and Momentum Analysis of Collisions
- [980027](#) Comparison of Modelled and Actual Car Dynamic Frontal Crush
- [980028](#) Door Latch Strength in a Car Body Environment
- [980029](#) Crush Stiffness Coefficients, Restitution Constants, and a Revision of [CRASH3](#) & [SMAC](#)
- [980367](#) Comparison of Tire Friction Test Methodologies Used in Accident Reconstruction
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- [982747](#) Effectiveness of the Slip Circle, "COMBINATOR", Model for Combined Tire Cornering and Braking Forces When Applied to a Range of Tires

1999

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- [1999-01-0092](#) Low Speed Acceleration of the Freightliner FLD-120 Tractor Truck
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- [1999-01-0096](#) Comparison Testing of Bumper Isolators
- [1999-01-0097](#) Determination and Mechanisms of Motor Vehicle Structural Restitution from Crash Test Data
- [1999-01-0098](#) Characteristic Vehicular Deceleration for Known Hazards
- [1999-01-0099](#) Crush Energy and Structural Characterization
- [1999-01-0100](#) Vehicle crash severity assessment in lateral pole impacts
- [1999-01-0101](#) Computer-Generated Trial Exhibits: A Post-Daubert Update
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- [1999-01-0103](#) Differences Between [EDVDS](#) and Phase 4
- [1999-01-0104](#) The DyMesh Method for Three-Dimensional Multi-Vehicle Collision Simulation
- [1999-01-0105](#) A Comparison of Crush Stiffness Characteristics from Partial-Overlap and Full-Overlap Frontal Crash Tests
- [1999-01-0106](#) Principles of Crush Energy Determination
- [1999-01-0439](#) Using Digital Photogrammetry to Determine Vehicle Crush and Equivalent Barrier Speed (EBS)
- [1999-01-0440](#) Acceleration and Speeds of Young Pedestrians
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- [1999-01-0444](#) A New Approach to Occupant Simulation Through the Coupling of [PC-Crash](#) and [MADYMO](#)
- [1999-01-0445](#) The Pedestrian Model in PC-Crash - The Introduction of a Multi Body System and its Validation
- [1999-01-0446](#) Anatomy of Accidents Following Tire Disablements
- [1999-01-0447](#) Drag and Steering Effects from Tire Tread Belt Separation and Loss
- [1999-01-0448](#) New Dimensions in Rollover Analysis
- [1999-01-0449](#) Influence of Passenger and Cargo Load on the At Limit Handling of a Mini Van
- [1999-01-0451](#) Factors Affecting the Accuracy of Non-Metric Analytical 3-D Photogrammetry, Using [PhotoModeler](#)
- [1999-01-0633](#) US and UK Belted Driver Injuries with and without Airbag Deployments - A Field

Data Analysis

- [1999-01-0764](#) Deployment of Air Bags into the Thorax of an Out-of-Position Dummy
- [1999-01-0785](#) A Unified Semi-Empirical Tire Model with Higher Accuracy and Less Parameters
- [1999-01-1071](#) Energy and Entropy in Airbag Deployment: The Effect on an Out-Of-Position Occupant
- [1999-01-1295](#) The Appropriate Use of "Delta-V" in Describing Accident Severity
- [1999-01-1336](#) Measured Vehicle Inertial Parameters - [NHTSA's](#) Data Through November 1998

2000

- [2000-01-0357](#) Modeling Combined Braking and Steering Tire Forces
- [2000-01-0460](#) The Effect of Crash Pulse Shape on Occupant Simulations
- [2000-01-0461](#) Structural Rebound Characteristics of the Car Population in Frontal Impacts
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- [2000-01-0466](#) Utilizing Electronic Control Module Data in Accident Reconstruction
- [2000-01-0468](#) [HVE](#) EDSMAC4 Trailer Model Simulation Comparison with Crash Test Data
- [2000-01-0469](#) Simulations of Large School Bus Crashes
- [2000-01-0470](#) Low-Speed Acceleration of a Kenworth T2000 Tractor-Truck with Autoshift Transmission
- [2000-01-0471](#) Validation of the Coupled PC-CRASH - MADYMO Occupant Simulation Model
- [2000-01-0844](#) Validation of DyMESH for Vehicle vs Barrier Collisions
- [2000-01-0845](#) Acceleration and Speeds of Young Pedestrians: Phase II
- [2000-01-0846](#) Comprehensive Analysis Method for Vehicle/Pedestrian Collisions
- [2000-01-0847](#) Validation of the [PC-Crash](#) Pedestrian Model
- [2000-01-0848](#) SMASH - Program for Car Accident Simulation
- [2000-01-0849](#) Data from Five Staged Car to Car Collisions and Comparison with Simulations
- [2001-01-0850](#) Vehicle impact response analysis through the use of accelerometer data
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- [2000-01-1314](#) Tire Friction During Locked Wheel Braking
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- [2000-01-1435](#) Road Traffic Accident Reconstruction: Vision, Alertness and Reaction Relating to Driving
- [2000-01-3552](#) Formula One Accident Investigations

2001

- [2001-01-0475](#) Test Method for Simulating Vehicle Rollover
- [2001-01-0499](#) [AV](#), BEV and Coefficient of Restitution Relationships as Applied to the Interpretation of Vehicle Crash Test Data
- [2001-01-0500](#) Stiffness and Crush Energy Analysis for Vehicle Collision and Its Relationship to Barrier Equivalent Velocity (BEV)

- [2001-01-0501](#) Determination of b1 Coefficients From Lower and Higher Speed Impacts Using Peak Force
- [2001-01-0502](#) Stiffness Parameters for Vehicle Collision Analysis, An Update
- [2001-01-0503](#) [SIMON](#): a New Vehicle Simulation Model for Vehicle Design and Safety Research
- [2001-01-0504](#) Non-Linear Damage Analysis in Accident Reconstruction
- [2001-01-0505](#) [PC-Crash](#) and [HVE](#), an Overview of Similarities and Differences
- [2001-01-0507](#) Reconstruction of Twenty Staged Collisions With [PC-Crashes](#) Optimizer
- [2001-01-0891](#) Coefficients of Restitution for Low and Moderate Speed Impacts With Non-Standard Impact Configurations
- [2001-01-0892](#) Dependence of a Coefficient of Restitution on Geometry for High Speed Vehicle Collisions
- [2001-01-0893](#) Low-Speed Impact Testing of Pickup Truck Bumpers
- [2001-01-0896](#) Pedestrian Behavior At Signal-Controlled Crosswalks
- [2001-01-0897](#) Real-World Walking Speeds of Young Pedestrians
- [2001-01-0898](#) Throw Model for Frontal Pedestrian Collisions
- [2001-01-0899](#) Human Occupant Motion in Rear-End Impacts: Effects of Incremental Increases in Velocity Change
- [2001-01-0900](#) Vehicle and Occupant Response in Heavy Truck to Passenger Car Sideswipe Impacts
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- [2001-01-1283](#) Reconstruction of Accident Severity in a Multiple Vehicle Collision
- [2001-01-1284](#) Physical Evidence Analysis and Roll Velocity Effects in Rollover Accident Reconstruction
- [2001-01-3165](#) Essential Considerations in [Delta-V](#) Determination

2002

- [2002-01-0019](#) Pedestrian Throw Kinematics in Forward Projection Collisions
- [2002-01-0535](#) Using Event Data Recorders in Collision Reconstruction
- [2002-01-0538](#) The Effects of Occupant and Vehicular Parameters on the Onset and Severity of Whiplash Associated Disorder from Low Speed Rear-End Collisions
- [2002-01-0540](#) Low Speed Collinear Impact Severity: A Comparison Between Full Scale Testing and Analytical Prediction Tools with Restitution Analysis
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- [2002-01-0549](#) Possible Errors Occurring During Accident Reconstruction Based on Car "Black Box" Records
- [2002-01-0550](#) Revision and Validation of Vehicle/Pedestrian Collision Analysis Method
- [2002-01-0551](#) Seventeen Motorcycle Crash Tests into Vehicles and a Barrier
- [2002-01-0553](#) Single Vehicle Wet Road Loss of Control; Effects of Tire Tread Depth and Placement
- [2002-01-0554](#) Large School Bus Side Impact Stiffness Factors
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- [2002-01-0679](#) The Accuracy and Sensitivity of Event Data Recorders in Low-Speed Collisions
- [2002-01-0817](#) Lane Change Maneuver Modeling for Accident Reconstruction Applications
- [2002-01-1305](#) Re-Analysis of the [RICSAC](#) Car Crash Accelerometer Data
- [2002-01-1566](#) Overview of [CARAT-4](#), a Multi-body Simulation and Collision Modeling Program

2003

- [2003-01-0159](#) Vehicle Acceleration and Compartment Intrusion for Far-Sided Occupants v. Near-Sided Occupants in Frontal Offset Collisions
- [2003-01-0486](#) The Automatic Iteration of [SMAC](#)
- [2003-01-0487](#) Conducting Monte Carlo Analysis with Spreadsheet Programs
- [2003-01-0488](#) Application of the Monte Carlo Methods for Stability Analysis within the Accident Reconstruction Software PC-CRASH
- [2003-01-0489](#) Evaluating Uncertainty in Accident Reconstruction with Finite Differences
- [2003-01-0491](#) Modeling of Low-Speed, Front-to-Rear Vehicle Impacts
- [2003-01-0492](#) Practical Analysis Methodology for Low Speed Vehicle Collisions Involving Vehicles with Modern Bumper Systems
- [2003-01-0495](#) Side Impact Motor Vehicle Structural Characteristics From Crash Tests
- [2003-01-0505](#) An Impact Pulse-Restraint Energy Relationship and Its Applications
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- [2003-01-0884](#) Head, Hip and Knee Velocities of Restrained Occupants in Frontal Impacts
- [2003-01-0885](#) Development and Evaluation of Driver Response Time Predictors Based upon Meta Analysis
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- [2003-01-0888](#) A Study of Errors in Yaw-Based Speed Estimates Due to Effective Braking
- [2003-01-0889](#) The Accuracy of Pre-Crash Speed Captured by Event Data Recorders
- [2003-01-0890](#) Effects of Mass and Stiffness Ratio Variation on Vehicle Speed Change and Closing Speed Calculations
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- [2003-01-0966](#) Estimation of Passenger Vehicle Inertial Properties and Their Effect on Stability and Handling
- [2003-01-3393](#) Numerical Methods for Evaluating ECM Data in Accident Reconstruction and Vehicle Dynamics

2004

- [2004-01-0171](#) Modeling Driver Response to Lead Vehicle Decelerating
- [2004-01-0330](#) Crash Simulations to Understand Injury Mechanisms in Maneuver Induced Rollover Crashes
- [2004-01-1168](#) Vehicle Mass and Stiffness: Search for a Relationship
- [2004-01-1180](#) Development of an Event Data Recorder and Reconstruction Analysis
- [2004-01-1181](#) An Examination of the CRASH3 Effective Mass Concept
- [2004-01-1185](#) Analytical Model for Investigating Low-Speed Sideswipe Collisions
- [2004-01-1186](#) Enhanced Vehicle Identification in Motor Vehicle Accident Databases
- [2004-01-1187](#) Yaw Testing of an Instrumented Vehicle with and without Braking

- [2004-01-1191](#) A Fuzzy System to Determine the Vehicle Yaw Angle
- [2004-01-1193](#) Vehicle Dynamics in Non-Collinear Low-Velocity, Rear End Collisions
- [2004-01-1194](#) Crash Severity: A Comparison of Event Data Recorder Measurements with Accident Reconstruction Estimates
- [2004-01-1195](#) The Efficacy of Event Data Recorders in Pedestrian-Related Accidents
- [2004-01-1198](#) Occupant Displacement Model for Restrained Adults in Vehicle Frontal Impacts
- [2004-01-1207](#) Validation of the [SIMON](#) Model for Vehicle Handling an Collision Simulation - Comparison of Results with Experiments an Other Models
- [2004-01-1208](#) Determination and Verification of Equivalent Barrier Speeds (EBS) Using PhotoModeler as a Measurement Tool
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- [2004-01-1218](#) Forensic Evidence of Child Restraint Devices in Vehicle Crashes
- [2004-01-1220](#) The Effects of Measurement Uncertainty on the Reconstruction of Various Vehicular Collisions
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2005

- [2005-01-0423](#) Driver Crash Avoidance Behavior: Analysis of Experimental Data Collected in [NHTSA's](#) Vehicle Antilock Brake System (ABS) Research Program
- [2005-01-0426](#) Factors that Influence Drivers' Response Choice Decisions in Video Recorded Crashes
- [2005-01-0427](#) Relationship Between Relative Velocity Detection and Driver Response Times in Vehicle Following Situations
- [2005-01-1175](#) Vehicle Speed Changes and Accelerations Associated with Curb Impacts and a Comparison to [HVE](#) [SIMON](#)
- [2005-01-1177](#) The Application and Reliability of Commercial Vehicle Event Data Recorders for Accident Investigation and Analysis
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- [2005-01-1185](#) Tachograph Chart - Analysis of Intensive Braking Recording
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- [2005-01-1189](#) Validation of the Circular Trajectory Assumption in Critical Speed
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Impact Stiffness Coefficients

- [2005-01-1206](#) The Accuracy of Crash Data from Ford Restraint Control Modules Interpreted with Revised Vetronix Software
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2006

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2007

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- [2007-01-0816](#) Analytical Tire Forces and Moments Model With Validated Data

2008

- [2008-01-0155](#) Characteristics of Trailer Rear Impact Guard - Interdependence of Guard Strength, Energy Absorption, Occupant Acceleration Forces and Passenger Compartment Intrusion
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2009

- [2009-01-0056](#) Motion Tracking in Crash Test Applications with Inertial Measurement Units
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- [2009-01-0093](#) Development of a Variable Deceleration Rate Approach to Rollover Crash Reconstruction
- [2009-01-0099](#) The Influence of Disablement of Various Brakes on the Dry Stopping Performance and Stability of a Tractor-Semitrailer
- [2009-01-0100](#) Tire Mark Analysis of a Modern Passenger Vehicle with Respect to Tire Variation, Tire Pressure and Chassis Control Systems, siehe auch VKU-Artikel [Pkw-Reifenspuren unter Einfluss der Regelsysteme ABS und ESP und der Parameter Reifenart und Reifendruck](#)
- [2009-01-0101](#) Analysis of Front Suspension Ball Joint Separations in Motor Vehicle Crashes
- [2009-01-0102](#) Tire Models for Vehicle Dynamic Simulation and Accident Reconstruction (siehe auch [EVU 2008](#))
- [2009-01-0103](#) Variability of Yaw Calculations from Field Testing
- [2009-01-0104](#) Monte Carlo Techniques for Correlated Variables in Crash Reconstruction
- [2009-01-0105](#) Crush Energy Assessment in Frontal Underride/Override Crashes
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- [2009-01-0436](#) Effectiveness of [Electronic Stability Control](#) on Maintaining Yaw Stability When an SUV Has a Rear Tire Tread Separation.
- [2009-01-0830](#) Vehicle and Occupant Responses in a Friction Trip Rollover Test
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- [2009-01-0881](#) Data Sources and Analysis of a Heavy Vehicle Event Data Recorder - V-MAC III
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- [2009-01-2264](#) Validation Study of a Generalized Minor Rear Vehicle Crash [MADYMO](#) Model Utilizing Real World Data
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2010

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- [2010-01-0067](#) Brake Pedal Response and Occupant Kinematics During Low Speed Rear-End Collisions
- [2010-01-0069](#) Front and Rear Car Crush Coefficients for Energy Calculations
- [2010-01-0070](#) Verification of ABS Models Applied in Programs for Road Accident Simulation
- [2010-01-0071](#) Sensitivity of Monte Carlo Modeling in Crash Reconstruction
- [2010-01-0072](#) Comparison of Motorcycle Braking System Effectiveness
- [2010-01-0227](#) Trailer Rear Impact Protection: Influence of Guard Support Deformation
- [2010-01-1001](#) Accuracy of [EDR](#) During Rotation on Low Friction Surfaces
- [2010-01-1581](#) Updating Generic Crush Stiffness Coefficients for Accident Reconstruction

2011

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- [2011-01-1117](#) Rollover Testing of Recreational Off-Highway Vehicles (ROVs) for Accident Reconstruction
- [2011-01-0280](#) Heavy Truck Engine Retarders: Testing and Theory
- [2011-01-0282](#) Lug Nut Trace Analysis to Determine Velocity Ratio
- [2011-01-0289](#) Closed Form Solution of BEV's and b1 Coefficients from Collinear Vehicle to Vehicle Crash Testing
- [2011-01-0290](#) A Bayesian Approach to Cross-Validation in Pedestrian Accident Reconstruction
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- [2011-01-0808](#) Data Extraction Methods and their Effects on the Retention of Event Data Contained in the Electronic Control Modules of Detroit Diesel and Mercedes-Benz Engines
- [2011-01-1093](#) Evaluation of Dynamic Roof Deformation in Rollover Crash Tests
- [2011-01-1114](#) Rollover Crash Test Results: Steer-Induced Rollovers
- [2011-22-0011](#) Response of PMHS to High- and Low-Speed Oblique and Lateral Pneumatic Ram

Impacts

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- [2011-36-0384](#) A Computational Study to Determine the Severity of Injuries in the Driver of Passenger Car and Sport Utility Vehicle Due to Rollover Accidents

2012

- [2012-01-0103](#) Full-Scale Moving Motorcycle into Moving Car Crash Testing for Use in Safety Design and Accident Reconstruction
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- [2012-01-0604](#) Sensitivity of Collision Simulation Results to Initial Assumptions
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2013

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2014

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- [2014-01-1989](#) An Examination of Crash and NASS Data to Evaluate the Field Relevance of [IIHS](#) Small Offset Tests

2015

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Tests

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- [2015-01-1461](#) Pedestrians Wrap Around Distance WAD and the Relevance as Influence Parameter for Head Injuries (dürfte dem VKU-Artikel [Abwickellänge WAD des Körpers von Fußgängern und Radfahrern an der Pkw-Front und Relevanz als Einflussparameter für Kopfverletzungen](#) aus 02/2015 entsprechen)
- [2015-01-1464](#) Typical Pedestrian Accident Scenarios in China and Crash Severity Mitigation by Autonomous Emergency Braking Systems ([AEBS](#))
- [2015-01-1466](#) Accident Characteristics and Influence Parameters of Severe Motorcycle Accidents in Germany
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2016

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2017

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2018

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Vehicles with a Pre-crash Safety System

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2019

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