

WADE BARTLETT
Curriculum Vitae – October 2015

- SUMMARY** Accident reconstruction with an emphasis on motorcycle crash analysis and automobile event data recorders.
- EDUCATION** MS Mechanical Engineering, University of New Hampshire, Durham NH, 1994
Program emphasis: solid mechanics, material behavior, numeric modelling
BS Mechanical Engineering, University of New Hampshire, Durham NH, 1989
graduated *cum laude*, with a Minor in Materials Science
- EMPLOYMENT** Consulting Engineer, MFES LLC, Jan 1996-Present
Sworn Police Officer, Town of Middleton NH, 2003-Present
Adjunct Faculty, IPTM, University of North Florida, 2002-Present
Mechanical Engineer, Forensic Technologies Int'l., Annapolis MD, 1994-1996
Mechanical Engineer, New Hampshire Materials Lab, Dover NH, 1989-1994
Motorcycle Skills Instructor, State of New Hampshire, 1991-2002
- CERTIFICATIONS** Licensed Professional Engineer, State of New Hampshire, since 1995
Traffic Accident Reconstructionist, ACTAR, since 2002
Master Automobile Technician, ASE, 1996-2007
Master Medium/Heavy Truck Technician, ASE, 1997-2007
Certified CDR Tool User/Technician/Analyst, Since 2000
Motorcycle Skills Instructor, Motorcycle Safety Foundation, 1991-2002
Licensed Motorcycle Roadracer, CCS, 1998-2008
Certified Commercial Brake Inspector/Adjuster, NHMTA, 2000
Firearms Instructor, NHPST 2003-2009, NRA since 2003
- MEMBERSHIPS** Society of Automotive Engineers, 1994-present
Crash Data Collection and Analysis Committee, 2012-2014
Accident Investigation & Reconstruction Practices Committee, 1996-2011
Transaction Selection Committee member, 1996-2006
Impact and Rollover Test Standards Committee, 1997-2009
National Council of Examiners for Engineers and Surveyors, 1999-present
Mechanical Systems & Materials depth exam subcommittee
Belknap & Strafford Regional Crash Investigation Teams, 2003-present
NAPARS, since 2004 (board of directors 2008-2012)
ASME, SOAR, NYSTARS
- AWARDS** Congressional Law Enforcement Award for Dedication and Professionalism, 2015
Outstanding Presenter Award, IPTM Special Problems, 2015

CLASSES TAUGHT

Event Data Recorders in Traffic Crash Reconstruction, 1-week IPTM class, 2013, 2014
Advanced Motorcycle Crash Reconstruction, 1-week class, 11 times 2006-2014, WA ME OH WI ON, SC
Motorcycle Crash Investigation, 1-week IPTM class, 2003, 2004, 2008
Conducting & Validating Vehicle Testing, 2-day IPTM class, IL Sep 2008
Commercial Motor Vehicle Crash Investigation, 1-week IPTM class, 2005
Traffic Crash Reconstruction, 2-week IPTM class, twice in 2002

INVITED LECTURES

Motorcycle Evasive Maneuvers, IPTM Clearwater FL May 2015, ARC-CSI Las Vegas June 2015
Friction & Secondary Slap, Joint Conference, Atlantic City NJ, 2013
Motorcycle Update, PSP Conference, PA 2013
Motorcycle Crush Analysis, Joint Conference, Fishkill NY 2012; IATAI 2012
Friction in Special Situations, NHSP In-Service, Concord NH 2012
Crush and Momentum in Motorcycle Crash Analysis, IPTM Special Problems, April 2011
Sensitivity and Uncertainty in Crash Analysis, PSP Conference, PA 2010
Heavy Truck Braking Evaluation, NAPARS Joint Conference, MD 2009
SUVs and Critical Speed Yaw Analysis, ARC/CSI Conference, NV 2009
Motorcycle Braking and Crush Analysis, SATAI Conference, NV 2009
CSY Analysis in Unusual Situations, PSP Recon. Seminar 2008, NJAARS Joint Conference 2008
Putting a Forensic Engineer on your Case, Vermont Trial Lawyers Assoc CLE Program, Oct 2007
Automotive Technology & Crash Reconstruction, MTL CLE Program, Portland ME, Sep 2006
Motorcycle & Automotive Technology Update, IATAI Annual Conference, Bloomington IN, Sep 2006
Critical Speed Yaw Analysis on Various Surfaces, Maine State Police In-Service, Augusta ME, Sep 2006
Heavy Truck Braking Analysis, Pennsylvania State Police Reconstruction Seminar, 2006
Reconstruction of CMV crashes, NAPARS conference, Augusta ME, May 2006
Bobtail Tractor and TT Unit Collisions with Stationary Vehicles, IPTM Special Problems, FL, 2006
Critical Speed Yaw Analysis, SAE Accident Reconstruction Symposium, Ventura CA, Nov. 2005
Momentum Vector Diagramming, Pennsylvania State Police Reconstruction Seminar, 2005
Introduction to "Black Box" technology,
Commonwealth Auto Reinsurers Seminar, May 2004
Safe Driving Summit, State of NH, Nov 2004
Critical Speed Yaw Testing and Literature Review, IPTM Special Problems, March 2004
Motorcycle Drop/Drag Testing and Analysis, IPTM Special Problems, March 2003
Vehicle Sensors and Technology, IPTM Special Problems, March 2003
Motorcycle Crash Testing/Results, IPTM Special Problems, March 2002
So This is What the Hurt Report was Talking About, Mass. Rider Ed. Program Update, 2002
Vehicle Mechanical Failures, Gulfstream Technical Recon. Society, Palm Beach FL, 2001
Forensic Vehicle Considerations for Initial Investigators, presented six times 2000-2003

PROFESSIONAL DEVELOPMENT (since 1995)

Joint Reconstruction Conference, NJ '08, MD '09, NY '12, NJ '13, ME '14, MD '15
MapScenes Forensic CAD 2013, CFS, Aug '15
ARC/CSI Crash Conference, Las Vegas NV, June '06, '07, '09, '13, '15
Special Problems in Accident Reconstruction, IPTM, Jacksonville FL, 2001-2007, '11, '15
Advanced Steering and Suspension Systems Damage Analysis, I-CAR DAM15, Las Vegas NV, Nov '14
Society of Automotive Engineers Annual Congress, Detroit MI, 1996, 1997, '00-'08, '10, '11, '13, '14
PA State Police Accident Reconstruction Seminar, '03-'06, '08, '13
CDR User's Conference, Dallas TX, Feb.2006, Houston TX '07, '08, '12, '13
Optics, Lighting, Visibility and Night Photography, Clearly Visible Presentations, May 2012
IATAI Annual Conference, Bloomington IN, '06, '08, '12
Geothermal Systems, Halfmoon Seminars, Manchester NH, August 2011
CDR Technician/Analyst class, CDR-Trainers, Stratham NH, June 2011
National Crash Analysis Center Conference, Ashland VA, October 2010
Failure Analysis Methods, SAE, May 2010
Statistical Analysis of Time Dependent Failures, SAE, May 2010
AR-15 Comprehensive Armorer Course, Weapons System Training Council, April 2010
Using Excel for Crash Reconstruction, Millersville MD, Feb 2010
9th Annual International conference IATAI/EVU, Hinckley Island, England, 2009
Bosch CDR Technician/Analyst, Mar 2008, Feb 2009
SAE Highway Vehicle Event Data Recorder Symposium, Ashburn VA, June 2004, Sep 2007
CMV Collision Reconstruction, NAPARS, Augusta ME, May 2006
SAE Accident Reconstruction Symposium, Ventura CA, Nov 2005
South Carolina Accident Reconstructionists, annual conference July 2005
PE-Update Seminar, ME Society of Professional Engineers, Portland ME, Feb 2005
Vehicle Autopsy, NYSTARS, Albany NY, 2003
Commercial Vehicle AI/AR, IPTM June 2003
Vetronix Crash Data Retrieval Seminar, Santa Barbara CA 2000, Baltimore MD, 2002
AIRIL '01, Vancouver Canada, 2001
Heavy Truck Suspensions, NHMTA / Fleet Pro, 2001
Summer Training Session, Gulfstream Tech. Recon. Soc., West Palm Beach FL, 2001
World Reconstruction Exposition, College Station TX, 2000
Air Foundations, NHMTA / Fleet Pro, 2000
Front End Repair Seminar, Robbins Auto & Moog, 1999
Advanced Electric Systems Service Clinic, Robbins Auto and AC Delco, 1999
State of the Art in Reconstruction, IAARS, 1998
Vehicle Damage & Energy Relationship in Collision Reconstruction, TEEX, 1998
OBD II Clinic, Robbins Auto & AC Delco, 1998
Automatic Transmission Clinic, Robbins Auto & AC Delco, 1998
Penguin Motorcycle Roadracing School, NHIS, Loudon NH, 1997
Robust Engineering, ASME Seminar, 1995
Pole Side Impact & Heavy Truck Braking Performance, SAE, 1995
Heavy Truck Mechanics and Dynamics, University of Michigan, 1995

PUBLICATIONS

Using Limited Vehicle Data to Estimate Time/Distance/Speed Relationships for an Accelerating Automobile, **ARJ** 25(5), September/October 2015, pg. 43

Event Data Recorders in Motorcycles, **Motorcycle Consumer News**, May 2015, 46(5), pg. 38

Subaru EDR – A Case Study, **ARJ** 25(3), May/June 2015

Time and Distance Required for a Motorcycle to Turn Away from an Obstacle
Bartlett & Meyers; **SAE** 2014-01-0478, doi:10.4271/2014-01-0478

Evaluating motorcycle speed from crush damage using the Searle Method
IMPACT, Journal of the ITAI, Kent, UK, Spring 2014

25 Moving Motorcycle into Stationary Car Tests: CA²RS 2009 Data
Bartlett, Focha, Kauderer; **ARJ** 23(4), July/August 2013

Determining When an Object Enters the Headlight Beam Pattern of a Vehicle
Muttart, Bartlett, Kauderer, Johnston, Romoser, Unarski, Barshinger; **SAE** 2013-01-0787

Dry Pavement Stops with and without ABS: New Vericom Data, Bartlett & Jobe; **ARJ** 23(2), Mar/Apr 2013

Tire Fire Case Study, **ARJ** 23(1), Jan/Feb 2013

Accuracy of Event Data in the 2010 and 2011 Toyota Camry during Steady State and Braking Conditions, Ruth, Bartlett, Daily; **SAE** 2012-01-0999, **Int. J. Pass. Cars – Electronic & Electrical Syst.** 5:358-372

Influence of riding experience on glance behavior, brake response time and deceleration rates by drivers and motorcyclists, Muttart, Fisher, Kauderer, Bartlett, Peck, Guderian, Ton, Muttart; *6th International Driving Symposium on Human Factors in Driver Assessment, Training & Vehicle Design*, Olympic Valley CA, 2011

Glance and stopping behavior at intersections when motorcycle riding and driving
Muttart, Peck, Guderian, Bartlett, Ton, Kauderer, Fisher, Manning; Technical paper 11-0721. Washington, D. C.: **Transportation Research Board of the National Academies**, 2011

Glancing and Stopping Behavior of Motorcyclists and Car Drivers at Intersections, Muttart, Peck, Guderian, Bartlett, Ton, Kauderer, Fisher, Manning; **Transportation Research Record** No.2265, pg.81-88, 2011

Estimating Motorcycle Acceleration Profiles, **Collision** 6(1), 2011

Lean Angle Selection by Motorcycle Riders, Bartlett, Baxter, Wright; **ARJ** 21(2) 29-30, Mar/Apr 2011

Braking Rates for Students in a Motorcycle Training Program, Bartlett & Greear; **ARJ** 20(6), Nov/Dec 2010

Cone Of Departure: A Good Idea, But Not A Law, Bartlett & Schmidt; **Collision** 5(2), 2010

Braking on Dry Pavement and Gravel With and Without ABS, Bartlett & Wright; **SAE** 2010-01-0066

Yaw Tests on Grass and Gravel, Bartlett & Wright; Proceedings, *1st ITAI–EVU Conf., Hinckley UK, 2009*

Motorcycle Crush Analysis, **ARJ** 19(2), Mar/Apr 2009

Skid Testing on Snowy Paved Roadways, **ARJ** 19(1), Jan/Feb 2009

Monte Carlo Analysis of Motorcycle/Automobile Collision, Bartlett & Craig; **ARJ** 18(6), Nov/Dec 2008

CSY Tests w/ ABS & ESC on Pavement, Gravel, and Grass, Bartlett & Wright; **ARJ** 18(3), May/June 2008

Getting Data from Destroyed SDMs: Transferring EEPROMS Between Modules, **Collision** 3(1), 2008

Monte Carlo Analysis for Accident Reconstruction, **AIQ** #49, Winter 2008

EDR Durability and 49CFR563 Survivability Requirements, **Collision** 2(1), 2007

Motorcycle Slide-to-Stop Tests: IPTM Data thru 2006, Bartlett, Baxter, Robar; **AIQ** #46, Spring 2007

PUBLICATIONS (continued)

Motorcycle Braking Tests: IPTM Data thru 2006, Bartlett, Baxter, Robar; **ARJ** 17(4), Jul/Aug 2007

Calculating Deceleration Rates for S-Cam Air-Braked Heavy Trucks Equipped with ABS,
SAE Transactions – J. Comm.Vehicles, Vol.116:68-73, 2007-01-0714

Motorcycle Sliding Coefficient of Friction Tests, McNally & Bartlett; **ARJ** 17(2), March/April 2007

Contribution of a Laterally Displaced Vehicle to the Post-Impact Deceleration of a Heavy Truck,
Bartlett, Brill, Wright; **Collision** 1(2), 2006

Experimental Determination of Translational Acceleration Values for a Spinning Vehicle,
Masory, LeGall, Bartlett, Wright; Proceedings, *FL Conf. on Recent Advances in Robotics*, May 2006

Comparison of Drag Sled and Skidding Vehicle Drag Factors on Dry Roadways, Bartlett, Baxter, Livesay,
Schmidt, Stanard, Wright; **SAE Transactions – J. Pass.Cars-Mechanical**, 2006-01-1398

Validation of the Circular Trajectory Assumption in Critical Speed,
Masory, Delmas, Wright, Bartlett; **SAE** 2005-01-1189

Calculation of Heavy Truck Deceleration Based on Air Pressure Rise Time and Brake Adjustment,
SAE Transactions – J.Comm.Vehicles, 2004-01-2632

Emergency Response RWD v. FWD, Bartlett & Wright; **Police Fleet Manager**, 2(2), Summer 2003

Data Extraction from Sensory Data Obtained During Driving in Closed Course,
Masory, Benoit, Wright, Bartlett, Proceedings, *FL Conf. on Recent Advances in Robotics*, May 2003

Conducting Monte Carlo Analyses with Spreadsheet Programs, **SAE Transactions**, 2003-01-0487

Evaluating Uncertainty in Accident Reconstruction with Finite Differences,
Bartlett & Fonda, **SAE Transactions**, 2003-01-0489

Motorcycle Speed Estimates Using Conservation of Linear and Rotational Momentum,
McNally & Bartlett; Presented at IPTM Special Problems, April 2002

Protecting Yourself After the Accident, **Motorcycle Consumer News**, February 2002, 33(2), pg. 28

Accuracy of Vehicle Speed Estimates by Stationary Witnesses,
Bartlett, Wright, Brach, Baxter, Schmidt, Masory, **IMPACT**, Journal of the ITAI, Kent, UK, August 2002

Quantifying the Uncertainty in Various Measurement Tasks Common to Accident Reconstruction,
Bartlett, Wright, Masory, Brach, Baxter, Schmidt, Stanard, **SAE Transactions – J. Pass.Cars-Mechanical**,
2002-01-0546

Interpretation of Motorcycle Rear-Wheel Skidmarks, Proceedings, *Fourth International Conference on
Accident Investigation, Reconstruction, Interpretation, and the Law*, Vancouver BC Canada, August 2001

Driver Abilities in Closed-Course Testing, Bartlett, Masory, Wright, **SAE Transactions**, 2000-01-0179

Forensic Evaluation of Relative Sideswipe Speeds, Bartlett & Hochgraf, Proceedings of the 11th *Canadian
Multidisciplinary Road Safety Conference*, Halifax NS Canada, May 1999

Using Strap Strength To Estimate A Truck's Speed Around A Curve
Bartlett & Hochgraf; Proceedings, *CMRSC XI*, Halifax NS Canada, May 1999

Experimental and Numerical Investigation of Elastic, Plastic, and Creep Response of a Polymeric Clip,
Bartlett & Sherwood, Proceedings of the 51st *mtg. Soc. for Machinery Failure Prevention Tech.*, Herndon
VA, 1997

Passenger Vehicle Braking with a Disabled Vacuum Power Booster, **SAE Transactions**, 970946

End.