

2017

- 2017.01 ***Fast Models for Battery Cooling System Design***, W. Jansen, A. Bushell, B. Stegmann, E. Tate, C. Chang, A. Alajbegovic
- 2017.02 ***Simulation-driven Process to Evaluate Vehicle Integration Aspects in Brake Thermal Design***, J. Ocampo, S. Jelic, J. Han, SAE 2017-36-0011
- 2017.03 ***Drive Cycle Simulation of a Tiered Cooling Pack Using Non-Uniform Boundary Conditions***, VTMS12
- 2017.04 ***Prediction of Transient Charge Cooling Behaviour and the Effect on the Engine Performance***, R. Owen, A. Price, E. Tate, V. Staelens, Z. Yang

2016

- 2016.01 ***Lifetime Thermal Prediction of Engine Mounts***, A. Price, S Familbelle, V. Staelens, E. Tate
- 2016.02 ***Cabin Comfort with Thermo Analytics and Exa***, K. Bhambare, J. Pryor, 2016 Exa-TAI Joint Webinar
- 2016.03 ***Soak Simulations for Highly Complex Geometries Supporting Vehicle Development***, S. Wakelam, 2016 TAI User Group Meeting, Munich
- 2016.04 ***Simulate Complex Thermal Key-off & Soak Conditions with ThermoAnalytics and Exa***, D. Mukutmoni, J. Juszkievicz, 2016 Exa-TAI Joint Webinar

2015

- 2015.01 ***Automotive Cabin Infotainment System Thermal Management***, W. Jansen, J Amodeo, S Wakelam, K Bhambare, SAE 2015 World Congress, SAE 201-01-0328
- 2015.02 ***Defrosting Simulation of front Windshield and Side Window Interior Surfaces in an Extreme Cold Climate***, K Bhambare, V Nagarajan, J Han, O Filippova, A Konstantinov, J Kelly, C Wang, X Gu, SAE TMSS 2015
- 2015.03 ***Thermal Design Evaluation of Construction Vehicles using a Simulation based Methodology***, D. Mukutmoni, T. Donley, J. Han, K. Muthuraman, P.D. Campbell, T. Mertz, SAE Commercial Vehicle Engineering Conference 2015
- 2015.04 ***Validation and Design of Heavy Vehicle Cooling System with Waste Heat Recovery Condenser***, J. Dickson, M. Ellis, T. Rousseau, J. Smith, SAE Commercial Vehicle Engineering Conference 2015
- 2015.05 ***A Design Process for Batter Pack Thermal Systems***, E. Tate, W. Jansen, I. Hughes, J. Han, A Velivelli, Z. Yang, SAE

2015.06 ***A Coupled Approach to Truck Drum Brake Cooling***, S. Jelic, B. Li, S. Sun, G. Liao, Q. Fu, K. Lu, SAE Commercial Vehicle Engineering Conference 2015

## 2014

2014.01 ***Options for Coupled Thermal-Electric Modeling of Battery Cells and Packs***, S. Peck, A. Velivelli, W. Jansen, SAE 2014 World Congress, SAE 2014-01-1834

2014.02 ***Three-dimensional Transient Analysis of the Climate inside a Passenger Vehicle Cabin under Solar Load***, K. Bhambare, J. Fukuyama, J. Han, K. Masuzawa, A. Iwanaga, S. Patterson, SAE 2014 World Congress, SAE 2014-01-0702

2014.03 ***Numerical Simulation of Unsteady Natural Convection in a Simplified Engine Bay Enclosure under Soak Conditions***, Z. Wang, J. Han, D. Mukutmoni, SAE 2014 World Congress, SAE 2014-01-0651

2014.04 ***Investigation of Thermo-acoustic Excitations in a Rijke Tube Geometry***, D. Mukutmoni, R. Powell, R. Mutnuri, SAE 2014 World Congress, SAE 2014-01-1981

2014.05 ***An Approach for Water Jacket Flow Simulations, SAE 2014 World Congress***, N. Karras, T. Kuthada, J. Wiedmann, SAE 2014-01-0659

2014.06 ***Numerical Simulation of the Vehicle Cabin Climate Undergoing A/C Performance Test Cycle***, K. Bhambare, J. Fukuyama, J. Han, K. Masuzawa, A. Iwanaga, S. Patterson, JSAE Annual Spring Congress

2014.07 ***Thermal Modeling of 48-Cell Module for Realistic Load Cycles***, A. Velivelli, J. Han, W. Jensen, A. Alajbegovic, E. Tate, 2014 SAE Thermal Management System Symposium

2014.08 ***Effect of Cabin Material Properties on Climate inside Cabin and Passenger Comfort***, K. Bhambare, J. Han, S. Patterson, 2014 SAE Thermal Management System Symposium

## 2013

2013.01 ***Engine Air Intake Thermal Modelling in Full Vehicle Underhood Environment***, W. Jansen, Vehicle Thermal Management Systems 11, Coventry, UK

2013.02 ***Transient Fan Modelling and Effects of Blade Deformation in a Truck Cooling Fan Installation***, P. Gullberg, R. Sengupta, K. Horrigan, Vehicle Thermal Management Systems 11, Coventry, UK

2013.03 ***Long Term Transient Cabin Thermal Simulation with Multiple Fluid Node Approach***, Z. Wang, A. Alajbegovic, J. Han, T. Kuthada, D. Stoll, C. Makens, T. Schwenn, Vehicle Thermal Management Systems 11, Coventry, UK

2013.04 ***Thermal Modeling of the Engine Air Intake System in a Full Vehicle Model***, W. Jansen, SAE 2013 World Congress, SAE 2013-01-0861

- 2013.05 ***A Comparison of Physiology-based Metrics to Environment-based Metrics for Evaluating Thermal Comfort***, M. Hepokoski, A. Curran, T. Schwenn, SAE 2013 World Congress, SAE 2013-01-0844
- 2013.06 ***Managing the Heat at High Performance and Low Fuel Consumption – The New Porsche 918 Spyder***, H. Raiser, J. Niewöhner, H. Maier, 9th FKFS Conference, Stuttgart, Germany
- 2013.07 ***Cabin Cool-down Simulation for Optimal Design of HVAC, SAE Thermal Management Systems Symposium***, K. Bhambare, J. Zvonek, A. Alajbegovic, L. Chaney, Troy, MI, USA
- 2013.08 ***Evaluation of Automotive Windshield Defrost Performance Using a Simulation Based Approach***, A. Alajbegovic, D. Mukutmoni, J. Han, SAE Thermal Management Systems Symposium, Troy, MI, USA
- 2013.09 ***Use of a Passive Instrumented Manikin Coupled with a Thermo-physiology Model to Evaluate Vehicle Cabin Thermal Comfort***, M. Hepokoski, A. Curran, T. Schwenn, R. Burke, L. Chaney, M. Jeffers, SAE Thermal Management Systems Symposium, Troy, MI, USA
- 2013.10 ***Brake Duty Cycle Simulation for Thermal Design of Vehicle Braking System***, D. Meachair, G. Elliot, S. Jelic, B. Fechner, K. Bhambare, Eurobrake 2013, EB2013-MS-003
- 2013.11 ***Brake Duty Cycle Simulation for Thermal Design of Vehicle Braking System***, K. Bhambare, S. Jelic, M. Haffey, SAE Brazil 2013, SAE 2013-36-0615

## 2012

- 2012.01 ***Simulation of the Thermal Behavior of the LiFePO<sub>4</sub> Battery Pack***, N. Karras, M. Auer, H. Hopp, T. Kuthada, J. Wiedemann, J. Matsumoto, A. Velivelli, J. Han, A. Alajbegovic, SAE 2012 Thermal Management Systems Symposium, (presentation only)
- 2012.02 ***Advances in Brake Cooling Simulations Using Solid Conduction Methodology***, W. Jansen, SAE 2012 Thermal Management Systems Symposium, (presentation only)
- 2012.03 ***A survey of Human Thermal Comfort Metrics for Use in Transient Cool-Down Simulations***, M. Hepokoski, A. Curran, S. Patterson, SAE 2012 Thermal Management Systems Symposium, (presentation only)
- 2012.04 ***Role of Accurate Numerical Simulation of Brake Cooldown in Brake Design Process***, D. Mukutmoni, S. Jelic, J. Han, and M. Haffey, SAE 2012 Brake Colloquium & Exhibition, SAE 2012-01-1811
- 2012.05 ***Evaluation of Interior Heat-up Performance of a Compact Electric Vehicle***, D. Stoll, B. Bock, B. Stegmann, T. Kuthada, J. Wiedemann, Z. Wang, I. Monti and J. Han, 2nd International Conference Thermal Management for EV/HEV, Darmstadt, Germany

- 2012.06 ***Engine Room Lay-out Study for Fuel Efficiency and Thermal Performance***, S.-J. Baek, B. Lee, and J. Han, SAE 2012 World Congress, SAE 2012-01-1639
- 2012.07 ***Use of Aerodynamics, Thermal, and Aeroacoustic Simulations in Vehicle Design***, S. Jelic, SAE Brazil Congress 2012
- 2012.08 ***Development of a Temperature-Dependent Li-Ion Battery Thermal Model***, S. Peck, M. Pierce, SAE 2012 World Congress, SAE 2012-01-0117

## 2011

- 2011.01 ***Numerical and Experimental Investigation of Temperature and Flow Fields in a Full Vehicle***, D. Mukutmoni, J. Han, and A. Alajbegovic, 8th ASME/JSME Thermal Engineering Joint Conference, AJTEC2011-44405
- 2011.02 ***Numerical Simulation of Transient Thermal Convection of a Full Vehicle***, D. Mukutmoni, J. Han, and A. Alajbegovic, SAE World Congress, SAE 2011-01-0645
- 2011.03 ***A Coupled Approach to Brake Duty Cycle Simulation and Its Impact on the Vehicle Design/Development Process***, S. Jelic, S. Meyland, W. Jansen, and A. Alajbegovic, NAFEMS World Congress
- 2011.04 ***Design and Analysis of Computer Experiments (DACE) and 3D Computation Fluid Dynamics (CFD) Simulations for Agricultural Tractor Cooling Concept***, L. Crippa, M. Mattei, F. Polidoro, C. Kleinclaus, Y. Rousseau, B. Xu, A. Alajbegovic, Vehicle Thermal Management Systems 10, Birmingham, UK
- 2011.05 ***Virtual Vehicle Thermal Management at Jaguar/Land Rover, Reducing Cost, Development Time and Carbon Footprint***, W. Jansen, Vehicle Thermal Management Systems 10, Birmingham, UK
- 2011.06 ***Axial Fan Performance Predictions in CFD, Comparison of MRF and Sliding Mesh with Experiments***, P. Gullberg, R. Sengupta, SAE World Congress, SAE 2011-01-0652

## 2010

- 2010.01 ***Numerical Simulation of Transient Thermal Convection of Heated Pipe***, D. Mukutmoni, J. Han, A. Alajbegovic, L. Colibert, and M. Helene, SAE World Congress, SAE 2010-01-0550
- 2010.02 ***Nozzle Effects in Thermal Wind Tunnels***, Z. Wang, J. Han, and A. Alajbegovic, 3rd Joint US-European Fluids Engineering Conference, Montreal, Canada, ASME FEDSM2010-31171
- 2010.03 ***Vehicle Gearbox Convection Simulation***, R. Haessler, A. Alajbegovic, I. Monti, and T. Almeida, 8th MIRA International Vehicle Aerodynamics Conference, Oxfordshire, UK

- 2010.04 ***A coupled Approach to Brake Duty Cycle Simulation***, S. Jelic, S. Meyland, W. Jansen, A. Alajbegovic, 8th MIRA International Vehicle Aerodynamics Conference, Oxfordshire, UK
- 2010.05 ***Optimization of Aerodynamics and Engine Cooling Performance of a JMC Mid-Size Truck using Simulation***, L. Lu, L. Zhang, S. Liu, E. Le Loch, and H. Friz, SAE Commercial Vehicle Engineering Congress and Exhibition, SAE 2010-01-2032
- 2010.06 ***Long Term Transient Cooling of Heavy Vehicle Cabin Compartments***, Z. Wang, T. Donley, J. Han, K. Horrigan, A. Alajbegovic, M. Pell, A. Holtz, and D. Bloch, SAE Commercial Vehicle Engineering Congress and Exhibition, SAE 2010-01-2018
- 2010.07 ***Investigation of the Flow Generated by an Axial 3-Blade Fan***, F. Perot, M.-S. Kim, S. Moreau, D. Neal, 13th ISROMAC-2010-082.
- 2010.08 ***Optimization of Aerodynamics and Engine Cooling Performance of a JMC Mid-Size Truck using Simulation***, L. Lu, L. Zhang, S. Liu, E. Le Loc'h, H. Friz, SAE Paper 2010-01-2032
- 2010.09 ***Integrated Numerical and Experimental Approach to Determine the Cooling Air Mass Flow in Different Vehicle Development Stages***, S. Wille, T. Kuthada, N. Widdecke, H. Maier, A. Koller, SAE Paper 2010-01-0287

## 2009

- 2009.01 ***Simulation of Cooling Airflow and Surface Temperature of a Midsize Truck***, H. Li, J. Guangfu, M. Guodong, L. Lan, M. Li, B. Xu, H. Friz, K. Abe, J. Han, and A. Alajbegovic, SAE 2009-01-2894
- 2009.02 ***Heat Management at the Limit***, N. Burns, B. Fechner, A. Belanger, and A. Alajbegovic, 7th FKFS Conference, Stuttgart, Germany
- 2009.03 ***Cooling Analysis of a Passenger Car Disk Brake***, T. Schütz, SAE Paper 2010-01-3049

## 2008

- 2008.01 ***The Cooling Airflow of Heavy Trucks - A Parametric Study***, T. Hallqvist, SAE Congress 2008-01-1171
- 2008.02 ***A Coupled Approach to Brake Cooling Simulation***, T. Schütz, J. Wiedemann, G. Wickern, D. Mukutmoni, Z. Wang, and A. Alajbegovic, 7th MIRA International Vehicle Aerodynamics Conference, Birmingham, UK