



Arabella Park Sheraton · Munich · June 7 & 8, 2016



Program

DAY 1 . June 7 . Tuesday

8:00 – 9:00

Registration

Opening Plenary Session

9:00 – 9:15

Welcome Address – Dr. Sandeep Sovani, Director of Global Automotive Industry, **ANSYS**

9:15 – 9:45

Keynote – Jim Cashman, CEO, **ANSYS**

9:45 – 10:15

Keynote – Dr. Grzegorz Ombach, VP of Engineering, **Qualcomm**

10:15 – 10:45

Keynote – Manfred Adams, VP of Development, **Brose Group**

10:45 – 11:15

Keynote – Ferdinando Cannizzo, Head of Powertrain Electrification, **Ferrari**

11:15 – 11:30

Keynote – Tosh Tambe, **Amazon Web Services**

11:30 – 11:45

Keynote – TBD, **Hewlett Packard Enterprise**

11:45 – 13:00

Lunch

Automotive Simulation World Congress

ANSYS Electronics Simulation Expo

	Engine: Fuel Injection	Powertrain: Intake & Exhaust	Body & Chassis: Brakes	eMobility: Motors & Generators	Electronics: Thermal-Structural Reliability	Antenna Design for IoT applications	Chip Package System (Thermal Coupling)
13:00 13:30	(ANSYS) Comprehensive multi-physics simulations of cavitating and non cavitating high pressure Diesel injectors	(TU Freiberg) Investigation of the engine intake flow using high-resolved LES	(ZF-TRW) Efficient CAE-tools and processes to support brake-squeal countermeasure development	(Würth Elektronik) Development of an electromagnetic energy harvesting generator	(Continental) Optimal design of automotive multimedia systems	Keynote (IOT IC Labs) Why isn't the Internet Of Things more like the internet and how to fix it	
13:30 14:00	(City Univ of London) Flow and cavitation in Diesel fuel injector nozzles	(Continental) Dynamical pressure shock simulation in the silencer	(Hyundai Motor Co) Experimental validation of CEA and implementation of additional factors for brake squeal simulation	(Dynardo) Sensitivity analysis and optimization of an electric motor	(Bosch) Simulation concept for the virtual assessment of the transient electro-thermal behaviour of PCB-based ECUs	(ANSYS) Simulation of installed antenna performance on large structures	(Infineon) A Simulation approach for modeling the thermal behavior of chip, package, PCB and system
14:00 14:30	(Delphi) Simulation methodology for advance diesel injection and combustion development	(BMW) Influence of maldistribution on the cumulative emission of a three-way-converter	(Modelon) Systems engineering solutions- antilock braking system example	(ANSYS) Fast transient electromagnetic field simulation with time decomposition	(CADFEM) Coupled electrical, thermal and mechanical reliability investigations for power electronic assemblies	(CADFEM) Designing better dual band antennas for IoT and other applications	(ANSYS) Chip-package systems
14:30 15:00	(Bosch) CFD simulation of the hydraulic pressure analyzer (HDA) and validation of the measurement approach based on a common-rail injector	(FES Fahrzeugentwicklung Sachsen) Multiphase CFD-analysis for filling of automotive SCR tank systems as basis for design optimization	(D2H Engineering) Accelerated and validated brake cooling development using CAE tools	(EMMotive) Integral approach for simulation-driven development of electric traction motors in automotive applications	(Helmut Schmidt Univ) In-rush current from LED lamps can destroy switches	TBD	TBD

15:00 – 15:30

Break, Exhibition, Networking

	Engine: In-Cylinder	Powertrain: Seals	Body & Chassis: Aerodynamics	eMobility: Electric Drives	Electronics: Power Electronics	RF and Microwave Design for IoT	Chip Package System (SI, PI, EMC)
15:30 16:00	(ANSYS) Internal combustion engine simulation strategies	(FhG-IPA) Numerical simulation of seam sealing processes	(Red Bull Racing) Aerodynamic development and CFD workflow optimisation	(Motor Design Ltd) Efficiency map and drive cycle simulation for PMSMs	(BMW) Analysis and optimization of inductive charging systems for electromobility	(ANSYS) 60 GHz wireless comms systems	(U-Blox) Thermal gradients in a cellular module for 2G/3G cellular communications
16:00 16:30	(BMW) Lagrangian spark ignition model accounting for spark-channel dynamics, diffusion and detailed chemical kinetics	(LRCCP) On the sealing performance of an AEM rubber in an automotive oil filtration module: from mechanical characterization to viscoelastic simulation	(KTM) Automated workflow for the drag reduction of racing motorcycles	(Schaeffler) Cooling of Electric drive systems – how CFD simulation supports product development	(Ing Büro Edel) Comparison between simulation and measurement of transformer and inductor losses (PRESENTED in GERMAN LANGUAGE)	(SGI) Speeding electromagnetic simulation of single chips to complete module laminate assemblies at Qorvo(R)	(ANSYS) Solving package & printed circuit board converter power & delivery EMI challenges
16:30 17:00	(ANSYS) Internal combustion engine design and optimization	(Eagle Industry Japan) Sealing for Pumps and Turbos - Simulation Driven Development of the Next Generation Mechanical Seal	(PSA) Aerodynamic loads on a passenger car crossing a truck	(Steinbeis Center) Interpretation and design of an electric drive for a motocross bike (PRESENTED in GERMAN LANGUAGE)	(Webasto) Multidisciplinary simulation based design of a high efficiency high voltage heater for battery electric & plug-in hybrid veh.	(ANSYS) Antennas and wireless devices interferences simulations within a vehicle	(Infineon) Customized adoption of HPC GUI for a non-uniform LSF cluster
17:00 17:30	(TU Freiberg) Investigation of soot formation processes in DISI engines using ethanol-based fuels	(Cyclam) Optimization of an o-ring like elastomer for static sealing in engine cooling system	(Linkopings Univ) Evaluation of the stress blended eddy simulation model for external aerodynamics applications	(CADFEM) NVH analysis of drives	(SGI) Maximizing electromagnetic computation throughput	(ANSYS) Product update HFSS	(ANSYS) Product update SI-PI

17:30 – 18:30

Exhibition and Networking

18:30 – 21:30

Bavarian Dinner and Networking

DAY 2 . June 8 . Wednesday

7:30 – 8:30

Registration

Opening Plenary Session

8:30 – 9:00

Keynote – Dirk Linse, **BMW**

9:00 – 9:30

Keynote – Joachim Noack, Chief Engineer CAE, Global Lead CAE Braking, **ZF TRW**

9:30 – 10:00

Keynote – Atsushi Ogawa, Head of Aerodynamics and Thermal Management, Honda R&D Japan

10:00 – 10:30

Break, Exhibition, Networking

Automotive Simulation World Congress

ANSYS Electronics Simulation Expo

	Engine: Turbocharging	Powertrain: Cooling & Lubrication	Body & Chassis: Aero Optimization	Body & Chassis: Manufacturing & Structural Integrity	Systems & Software: System Simulation	Workshop 1 (German)	Workshop 2 (English)
10:30 11:00	(BMW) Fluid-structure interaction in the exhaust system of turbocharged petrol engines	(Deutz) Efficient simulation of boiling effects at engine cooling jackets	(ANSYS) Total Vehicle Simulation of the Volvo S80	(VW) Inductive heating of shaped blanks for hot stamping of car body parts	(ANSYS) Multidomain multifidelity system simulation: electric drive example	Simulation komplexer verkoppelter Antennensysteme für Kommunikation und Radar: effiziente Lösungen zur Modellierung und zur Berechnung	Efficient design flow for electromagnetic and thermal simulation of complex electronic systems developing Automotive and IoT applications
11:00 11:30	(TU Berlin) Analysis of different transient simulation methods for the numerical computation of a radial exhaust gas turbine	(John Deere) CFD investigation of rotating gears in oil	(Volvo Cars) Duct Optimization	(CADFEM) Topology optimization for additive manufacturing at the example of a wheel rim	(Modelon) TBD		
11:30 12:00	(VW) Numerical investigation of casing treatment for compressor map enhancement	(Code Product Solutions) Combining CFD, FEA and scripting for efficient oil vane pump integrity assessment	(Adam Opel) How simulation leads to compact damperfilter boxes	(VW) Coating dislocation by fast heating for press hardening in automotive context	(ANSYS) Simulation of ADAS and Autonomous Vehicle Systems		
12:00 12:30	(ANSYS) Turbocharger simulation	(CFX Berlin) Modern approaches to CFD simulation of positive displacement machines in automotive applications	(Wirth Research) Truck Aerodynamics Optimisation - Realised	(CaetanoBus) Complete Bus Body Simulation	(ANSYS) Autonomous Vehicle Radar: Improving Radar Performance with Simulation		

12:30 – 13:30

Lunch

	HPC & Cloud Computing	Powertrain: Lightweighting	Body & Chassis: Wind Noise	eMobility: Power Systems	Systems & Software: Embedded Software	Workshop 1 (English)	Workshop 2 (German)
13:30 14:00	(Esteco) Highly efficient design optimization for automotive applications.	(Enginsoft) Structural and material optimization of Borgwarner tensioner arms	(ANSYS) Deterministic aero-vibro acoustics for wind noise prediction	(Meta Systems) Efficient workflow for EMC and thermal modeling of a high power battery charger for electric vehicle.	(ANSYS) Workshop: Solutions for ISO26262 and AUTOSAR Compliant Safety Critical Systems	Simulation of complex coupled antenna systems for communication and radar: efficient solutions for modeling and calculation	Effizienter Entwurf komplexer elektronischer Systeme für Automobil- und IoT-Anwendungen mittels elektromagnetischer und thermischer Simulation
14:00 14:30	(Amazon Web Services) Reaching scale with cloud for automotive CAE simulation	(University of Erlangen) Assistance system for automated and knowledge-based setup and evaluation of design-accompanying Finite Element Analyses	(University of Erlangen-Nürnberg) A fluid-structure interaction scheme for prediction of flow-induced low frequency buffeting noise – Part 1: Flow simulation	(Johnson Matthey Battery Systems) Developing a CAE workflow for performance automotive battery systems: managing knowledge flow in a multi-physics environment			
14:30 15:00	(Uber Cloud) CFD simulations in the cloud, on demand, in novel software containers	(GRM Consulting) Advanced simulation methods for lightweighting within a passenger car powertrain	(Virtual Vehicle) A detached fluid-structure interaction scheme for prediction of flow-induced, low frequency, buffeting noise – Part 2: numerical workflow	(ANSYS) Fuel Cell Simulation: Water Management and Other Advances			

15:00 – 15:30

Break, Exhibition, Networking

Closing Plenary Session

15:30 – 15:45

Keynote – TBD

15:45 – 16:15

Keynote – Eric Bantegnie, VP of Systems and Software Business Unit, **ANSYS**

16:15 – 16:45

Award Ceremony – Thomas Zanzinger, Area Director for Germany, Austria & Nordics, **ANSYS**

16:45 – 17:45

Farewell Coffee & Soft Drinks in Exhibition Area