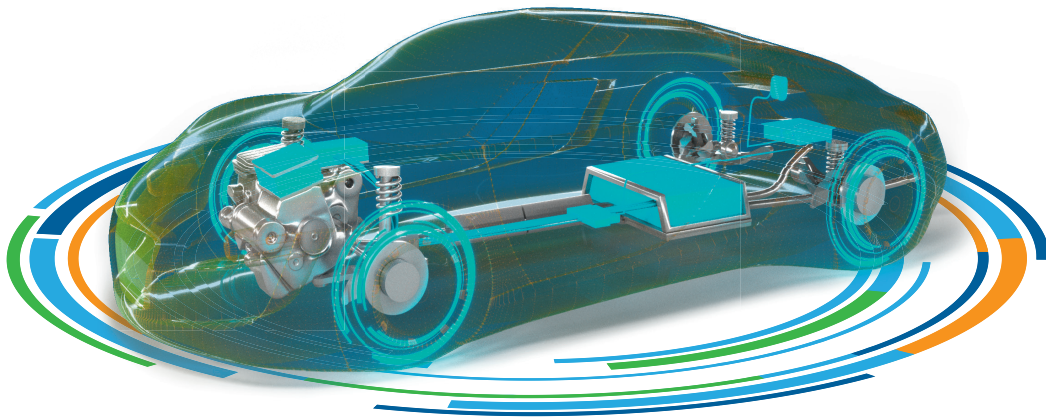




11th Int. Symposium on Development Methodology

November 11 – 12, 2025 | Wiesbaden | Germany



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GENERAL INFORMATION

DATE & VENUE
November 11 – 12, 2025, Kurhaus Wiesbaden,
Germany

TICKETS	
Registration fee	1,250,- Euro
Early bird (until July 25, 2025)	1,100,- Euro
University members	690,- Euro
Co-Speakers	550,- Euro
Speakers	Free

CONFERENCE LANGUAGES
German and English (simultaneous translation)

REGISTRATION AND FURTHER INFORMATION
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CONTACT
AVL Deutschland GmbH
Willi Klemens
Peter-Sander-Straße 32
55252 Mainz-Kastel
Phone: +49 6134 7179 453
Email: entwicklungsmethodik@avl.com

Conference Program – November 11, 2025

Keynote; Chairman: Prof. C. Beidl – Technical University Darmstadt			
08:45	Welcome and Opening of Symposium Prof. H. List – AVL List GmbH		
09:00	Data and AI-Driven Engineering: Digital Transformation in China's Automotive Industry Dr. S. Haasis – HaasisDEC		
09:30	Systems Engineering for Sustainable Aerospace Dr. H. Weimer – Airbus SE		
10:00	Coffee Break		
	Session 1A: Processes/Methods/System Engineering; Chairman: R. Jeutter – AVL Deutschland GmbH	Session 1B: Combustion Engine; Chairman: P. Renninger – Daimler Truck AG	
10:30	Feature-Driven eDrive Development: A Consistent Way to Handle Complexity Dr. M. Braband – eMoveUs GmbH	10:30	Virtual Test Benches: A New Platform at Rolls-Royce Power Systems for the Efficient Development of Modern Propulsion and Energy Solutions Dr. S. Fritz, P. Mayinger – Rolls-Royce Power Systems AG; S. Lange – AVL Germany GmbH
11:00	Ensuring Consistency in CPS Engineering: Braking Systems as a Research Platform L. Gesmann, S. Schwarz, T. Völk, K. Bause, Prof. A. Albers, Prof. T. Düser – IPEK - Karlsruhe Institute of Technology	11:00	Model-in-the-Loop Simulation for Model Predictive Controlled High-Pressure Direct Injection Dual-Fuel Engine Combustion Control Prof. W. Yu, Prof. F. Zhao – Shandong University

11:30	AI-Assisted System Engineering in the Automotive Industry Dr. C. Patz, F. Martinez, S. Reuter – Valeo S.A.	11:30	The New, Fully Automated Design Process for Turbocharger Compressors at Daimler Truck AG D. Schwarz, Dr. G. Nakov – Daimler Truck AG; R. Martinez-Botas – Imperial College London
12:00	From Weeks to Hours – AI-Powered Vehicle Concept Development M. Oswald N. De Kerpel, J. Schlager – AVL List GmbH; K. Lee, S. An – Hyundai Motor Company	12:00	Simulation-Driven Approach to Identify Load-Limiting Combustion Anomalies in H ₂ ICE B. R. Kinkhabwala, Prof. T. Koch, Dr. U. Wagner, J. Ziegler – Karlsruhe Institute of Technology KIT
12:30	Lunch Break		
	Session 2A: SDV; Chairman: Dr. W. Puntigam – AVL List GmbH	Session 2B: Fuel Cell; Chairman: Dr. O. Herrmann – DENSO Automotive Germany GmbH	
14:00	Safeguarding Over-the-Air Updates Dr. K. Grüttner, H. Schlender, Dr. R. Stemmer, Dr. B. Westphal – German Aerospace Center	14:00	Methods to Develop Pem Fuel Cell-Based Powertrains for Regional Aircraft Dr. D. Murschenhofer, Dr. C. Bänsch – German Aerospace Center
14:30	The Pre-integration Test Bench as a Key for SDV and Continuous Integration M. Steinhauser, M. Barth – IAV GmbH	14:30	Development of an Integrated Fuel Cell System Simulator “FC-DynaMo” S. Hasegawa – Toyota Motor Corporation; Dr. S. Kim – Tokyo University of Agriculture and Technology; Dr. M. Kawase, M. Kageyamaya – Kyoto University
15:00	Ride the Wave of Continuous Testing A. Furtner, M. Delp, Dr. G. Gnokam, Dr. S. Reuter– Schaeffler AG	15:00	Optimizing the Efficiency-vs-Degradation Trade-off of a PEM Fuel Cell S. Scheidel, Dr. A. M. Reiter – AVL List GmbH

15:30	Coffee Break	
	Session 3A: SDV; Chairman: Dr. W. Puntigam – AVL List GmbH	Session 3B: Data Analytics; Chairman: C. Christ – AVL List GmbH
16:00	Advancing Connected Mobility: Drive Global by Virtual Road B. van Moergastel, S. Visser, R. Puts – DENSO Automotive Deutschland GmbH	16:00 Enhancing Testbed Efficiency With a Machine Learning-Based Approach – A Study Case E. Pagliara – Ferrari S.p.A.; G. Goretti, Dr. G. Marmorato, F. Tatti – AVL Italia S.R.L.
16:30	SiL From Concept to SOP and Beyond V. Kremer, C. Wang, Dr. T. Palentschat, P. Lautenschütz – Mercedes-Benz AG; Dr. D. Borjan, F. Eberhard, L. Lazzarini Monaco, K. Satici, S. Eder – AVL List GmbH; Prof. R. Wörner – Esslingen University	16:30 Boosting Testing Efficiency with AI-Driven Anomaly Detection for Battery Cell Testing G. Schagerl; Dr. N. Didcock – AVL List GmbH
17:00	Efficient Transformation – Lean Tools Instead of Large-Scale Overhaul Programs Dr. C. Tschirner – Two Pillars GmbH; H. Kim – Dentsu Soken Inc.	17:00 Empowering Calibration Engineers in the AI: A Revolutionary Toolchain for Seamless Integration of Advanced AI Models into Series Production ECUs A. Dey, Dr. T. Huber – ETAS GmbH

Conference Program – November 12, 2025

	Session 4A: ADAS/AD; Chairman: Prof. T. Düser – Karlsruhe Institute of Technology	Session 4B: E-Drive; Chairman: E. Martini – Magna Powertrain GmbH & Co. KG
08:45	Safe Driving via Predictive Assistance and Scenario-Based Validation C. Rohmann, B. Hoary, S. Scholz, Prof. H. Bachem – Ostfalia University of Applied Sciences; Dr. A. Waldmann – Ventus Technologies GmbH	08:45 Advancing E-Axle Technology: Testing and Validation of the RHODaS Power Converter and Integrated Motor Drive Prof. P. Bielaczyc – Cracow University of Technology; Dr. R. Sala – BOSMAL Automotive R&D Institute Ltd.; Dr. L. Romeral, Dr. D. Lumbreras – Universitat Politècnica de Catalunya
09:15	Advancing Interoperability in Automotive Testing with ASAM Test Specification M. Lang – ASAM e.V.	09:15 Machine Copier – Fast, Easy and Precise Identification of Electrical Machines B. Pfeifer, Dr. P. Winzer, Dr. A. Schmitt – AVL SET GmbH
09:45	Method for Creating Digital Twins of Lidar Sensors in Autonomous Vehicle Systems A. Yousif, M. Amin-Saad, Dr. I. Stepanov – Valeo S.A.	09:45 AI-Enhanced Simulations in Automotive Engineering Dr. S. Wittek, Prof. A. Rausch, H. Eivazi – TU Clausthal
10:15	Coffee Break	
	Session 4A: ADAS/AD; Chairman: Prof. T. Düser – Karlsruhe Institute of Technology	Session 4B: E-Drive; Chairman: E. Martini – Magna Powertrain GmbH & Co. KG
10:45	Lean Test Bench Solution for Functional ADAS/AD Testing D. Fischer, Prof. T. Düser, K. Bause, Y. Weber – IPEK - Karlsruhe Institute of Technology	10:45 Beyond Data Correlation: Understanding and Predicting Battery Aging with Fast, Physical and Accurate Models Dr. J. Richter, Dr. L. Wehrle, Dr. B. Hauck – Batemo GmbH

11:15	ADAS/AD Validation via Vehicle-in-the-Loop: A Case Study on Autonomous Emergency Braking L. M. Otto, Prof. S. Müller – TU Berlin; A. Hartwecker – AVL Deutschland GmbH	11:15	Digital Twin: Automated xEV Component Modeling and Parameter Identification Y. Taguchi, J. Yasue, T. Suzuki – DENSO Corporation; G. Vitale – AVL List GmbH; H. Akimatsu – AVL Japan K.K.
11:45	Efficient Validation of Advanced Control Functions on a Vehicle-In-The-Loop Test Bench Dr. L. M. Castellanos Molina, Dr. N. Amati, S. Favelli, Dr. A. Mancarella, Dr. O. Marello, F. Pesacane, E. Tramacere, Dr. M. Silvagni – Politecnico di Torino; R. Hettel, D. Nickel – AVL Deutschland GmbH	11:45	Boost Test Coverage and Keep Testing Speed Dr. M. Schmidt – AVL Deutschland GmbH; H. Hammerer – AVL List GmbH
12:15	Lunch Break		
	Session 5A: Data Analytics/AI; Chairman: Prof. C. Beidl– Technical University Darmstadt		Session 5B: Tools in Practical Use; Chairman: Dr. T. Combé – Dr. Ing. h.c. F. Porsche AG
13:30	Ultra-Fast AI-Driven Modeling of Automotive Powertrain Systems Using Long Short-Term Memory Networks Dr. Q. Yang, Dr. M. Grill, Prof. A. Casal Kulzer – Research Institute for Automotive Engineering and Powertrain Systems Stuttgart (FKFS)	13:30	xCU in the Loop – Continuous Model Approach From MiL to HiL H. Zlojo, E. Mohs, M. Schrott – Hyundai Motor Europe Technical Center GmbH; A. Gahunia, V. Nottrott, Dr. A. Kuznik – AVL List GmbH
14:00	Data-Driven Estimation & Control: Improving Clutch Thermal Models for Electrified Dual-Clutch Transmission (eDCT) F. Ayachi, R. Biesmans, R. Nandyala, S. Basstanie, P. Danckers, D. Vanbaelen – Stellantis e-Transmissions	14:00	Taxonomy for Control Behaviour of Driving Robots for Chassis Dynamometer Tests T. Decker, B. Welker, A. Rieger, M. Grübsch, Dr. T. Combé – Dr. Ing. h.c. F. Porsche AG

14:30	Optimizing Vehicle Development Through Data-Driven Approaches and AI-Models T. Ikemyia – Toyota Motor Corporation; N. De Kerpel, Dr. J. Zehetner – AVL List GmbH; H. Akimatsu – AVL Japan K.K.	14:30	Co-Simulation of Refrigerant Circuits on the HiL-Thermolab Testbed as Part of a Holistic Development Methodology for Thermal Management Systems L. V. Fiore, Prof. C. Beidl, E. Stenger, N. Weimer, P. Lavall – Technical University Darmstadt; A. Vondrák – Garrett Motion Inc.; L. Acker, Dr. J. Konrad – Technical University Vienna
15:00	Global Automotive (R)Evolution: AI-Powered Speed and Transformation Dr. M. Baumann – Bosch Engineering GmbH	15:00	Cutting-Edge Optimization of Torque Vectoring Functions Using SiL and Advanced Methodology S. Dhingra – Jaguar Land Rover Ltd.; M. Hollander, S. Gopi – AVL List GmbH
15:30	Room Change		
	Keynote; Chairman: R. Jeutter – AVL Deutschland GmbH		
15:40	What Marks an Automotive Proving Ground as „Modern“?		
16:10	Security in the Age of AI		
16:40	Closing Remarks		
	Prof. C. Beidl – Technical University Darmstadt; R. Jeutter – AVL Deutschland GmbH		
16:50	End of Symposium		

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ORGANISATION

AVL Deutschland GmbH
Willi Klemens
Peter-Sander-Straße 32
55252 Mainz-Kastel

Phone: +49 6134 7179 453
Email: entwicklungsmethodik@avl.com