

# 2025 BMW SUMMER SCHOOL. FINAL SCHEDULE.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
09:00	Free Time (Pétanque training)	<b>Keynote AI in Mobility</b> Speaker: Dr. Celine Laurent-Winter & Dr. Martin Tietze (BMW)	<b>Generative AI services</b> Speaker: Hervé Durand (Kyndryl)	<b>Chip Design Workshop</b>	<b>AI and Functional Safety: Chips for Automated Driving</b>	Lean Startup Machine Pitch Day
10:00		Morning Coffee	Morning Coffee	Morning Coffee	Morning Coffee	
11:00		Pétanque competition	<b>Business Model Canvas</b> Speaker / Coach: Sarah Schappert (BMW) Dr. Manuel Schneider (BMW)	Speaker: Martin Friedrich (LUH Hannover) Matthias Lüders (LUH Hannover)	Speaker: Prof. Holger Blume (LUH Hannover) Prof. Jürgen Becker (KIT Karlsruhe)	
12:00	Lunch	Lunch	Lunch	Lunch	Lunch	Closure & Farewell
13:00	Lunch	Lunch	Lunch	Lunch	Lunch	
14:00	Welcome address (organizers)	<b>Innovation – from research to startup</b> Speaker: Simon Friedrich (TU Dresden)	<b>Lean Startup Machine</b> Speaker / Coach: Sarah Schappert (BMW) Dr. Manuel Schneider (BMW)	Midweek Social Event	<b>Lean Startup Machine</b> Speaker / Coach: Sarah Schappert (BMW) Dr. Svenja Welk (BMW)	
15:00	Opening Keynote I Speaker: Prof. Alexander König (TUM)	<b>Lean Startup Machine</b>			Coffee Break	
16:00	Opening Keynote II Speaker: Dr. Hendrik Schweppe (BMW)	Coffee Break	Coffee Break			
17:00	Creating the Future Speaker: Lars Wingerath (BMW) Sarah Schappert (BMW)	Speaker / Coach: Dr. Svenja Welk (BMW)	<b>Next Frontiers in AI</b> Speaker: Prof. Maria Zuluaga (EURECOM)			
18:00	Poster Pitches	Apero Poster Fair	Apero Poster Fair			
19:00						
20:00	Cocktail Reception & Dinner	Dinner	Dinner	Dinner	Dinner	
21:00		<b>Poolside Chat</b> Speaker: Dr. Celine Laurent Winter (BMW), Dr. Martin Tietze (BMW), Prof. David Gesbert (EURECOM)	<b>La Plage de l'Île d'Or</b>	mix and mingle	mix and mingle	

## PROGRAM.

- Keynote/breakout track** – Learning from invited speakers presenting their views and/or research.
- Poster track** – presentation & discussion of conference submissions.
- Lean startup machine** – develop innovative ideas in a competitive startup pitching format.

# 2025 BMW SUMMER SCHOOL. INVITED SPEAKERS.

## Poolside Chat



**David Gesbert** · 1st  
Director, EURECOM  
Biot  
3K followers



**Dr. Céline Laurent-Winter** ✓ · 1st  
Vice President Connected Vehicle Platforms  
Munich  
3K followers



**Dr. Martin Tietze**  
Vice President New Technologies Digital Car at BMW Group  
Greater Munich Metropolitan Area  
Experience: BMW Group, BMW, and 1 more



**David Gesbert** · 1st  
Director, EURECOM  
Biot  
3K followers



**Dr. Céline Laurent-Winter** ✓ · 1st  
Vice President Connected Vehicle Platforms  
Munich  
3K followers



**Hendrik Schweppe** ✓ · 1st  
General Manager ConnectedDrive, BMW Group  
Bavaria, Germany  
Experience: BMW Group, Valley Development GmbH, and 4 more



**Sarah Schappert** in · 2nd  
Invention Management & Ecosystem | Academic Relations |...  
Germany  
2K followers



**Lars Wingerath**  
PhD candidate, innovation Management, BMW Group



**Simon Friedrich**  
Founder, PhD candidate, TU Dresden



**Martin Friedrich** · 2nd  
PhD Student at Institute of Microelectronic Systems (Leibniz...  
Hannover  
Experience: Leibniz Universität Hannover



**Dr. Martin Tietze**  
Vice President New Technologies Digital Car at BMW Group  
Greater Munich Metropolitan Area  
Experience: BMW Group, BMW, and 1 more



**Holger Blume** · 1st  
Prof. Dr.-Ing. at Leibniz Universität Hannover, Vice President...  
Hannover-Braunschweig-Göttingen-Wolfsburg Region  
Experience: Leibniz Universität Hannover, Leibniz University  
Hannover, Institute for Microelectronic Systems, and 3 more



**Juergen Becker** · 1st  
Professor at KIT  
Germany  
Experience: Karlsruhe Institute of Technology (KIT),  
Universitaet Karlsruhe (TH) / KIT, and 1 more



**Dr. Svenja Welk** ✓ · 2nd  
BMW Group  
Germany  
Experience: BMW Group, Atos Consulting, and 5 more



**Weihai Li** ✓ · 2nd  
Junior Professor in AI and Digitalization for Batteries @ RWTH...  
Aachen  
Experience: RWTH Aachen University, Imperial College  
London, and 8 more



**Maria A. Zuluaga** ✓ · 2nd  
Assistant Professor at EURECOM | Visiting Senior Lecturer...  
Greater Nice Metropolitan Area  
Experience: EURECOM, King's College London, and 7 more



**Matthias Lüders** · 1st  
Wissenschaftlicher Mitarbeiter/PhD Student bei Leibniz...  
Hannover  
Experience: Leibniz Universität Hannover



**Hervé Durand** in · 3rd+  
Vice President and Distinguished Engineer at Kyndryl  
France  
Experience: Kyndryl, IBM, and 2 more

# 2025 BMW SUMMER SCHOOL. POSTERS.

**Simon Speth.** Metamorphic Testing of Safety-Critical Deep Learning Components in Autonomous Vehicles

**Selina Cheggour and Valeria Loscri.** Hybrid AI & Metaheuristic Solutions for Optimized Frequency Allocation in 6G Networks

**Artem Grigor, Anton Kravchenko and Ivan Martinovic.** Model Split - Practical Scaling on Verifiable ML

**Ramakrishnan Subramanian and Ulrich Bükler.** When Autonomous Vehicles hit their limits

**Sujan Sai Gannamaneni, Rohil Prakash Rao, Michael Mock, Maram Akila and Stefan Wrobel.**

Detecting Systematic Weaknesses in Vision Models along Predefined Human-Understandable Dimensions

**Vahid Zolfaghari.** From Regulations to Road: Automating Scenario Generation with RAG and LLMs

**Erdenebat Battseren.** Multimodal Affect-State Recognition Utilizing LLaMA-Adapter

**Olga Mironenko, Hadi Banaee and Amy Loutfi.** Dynamic coordination of underground automated vehicles in response to human driver behavior

**Aristotelis Styanidis, André Lourenço and George Yannis.** Driver Drowsiness Detection: Physiological Monitoring and Impact of Missing Inter-Beat Intervals

**Kaila C. Dawkins and Amelia C. Warden.** Does User Preference Lead to Better Performance? Cue Preference, Trust, and Self-Confidence in an Augmented Reality Visual Search Task

**Yessmine Chabchoub.** Development and Evaluation of a Manufacturer-Independent Synchronization Framework for GenCam Industrial Cameras

**Sousa Weddige.** AI-Based Radar Pipeline - From Raw Radar Data to Object Detection

**Amira Moualhi, Maryam Nezami, Saleh Mulhem and Georg Schildbach.** From First Principles to AI: Enhancing Vehicle Models

**Hossein Hosseinalibeiki.** Emergency LLM: A Specialized Language Model for Emergency Management in Transportation

**Florian Huber.** Anomaly Detection in Vehicle-to-Cloud Communication of Connected Vehicles

**Vafali Soltanmuradov.** An Automated Framework for Formal Verification of DNNs

**Alessandro Pighetti, Francesco Bellotti, Riccardo Berta, Andrea Cavallaro, Luca Lazzaroni and**

**Changjae Oh.** RAFT: Regularized Adversarial Fine-Tuning to Enhance Deep Reinforcement Learning for Self-Parking

**Lu Zhang.** Understanding Illicit Promotional Contents on Short Video Platforms

**Miriam Louise Carnot.** Automated Streetscape Monitoring

**Vivek Vrujlal Vekariya.** Test Dataset Quality Management Framework for DNNs

**Nils Purschke and Alois Knoll.** Reliable Software Engineering using Artificial Intelligence

**Andrea Castellano.** Human Performance Envelope in partially automated driving

**Prakash Jamakatel.** Contextual Assistance System for Single Pilot Operations

**Michel Sauvage.** Traffic Control with Deep Q-Networks: Is Precise Data Worth the Cost?

**Leonardo Vezzani.** In Car AR HUD

**Amani Mechergui, David Luz, Segolene Le Mestre and Salma Abdesslam.** Querying Core Procedures

Documents with Generative AI: A Case Study with benchmarks

**Alyah Alfageh, Theo Tryfonas and Nikolaos Stylos.** Securing B2B MaaS: How Cyber Investments

Impact Trust, Profit & Performance

**Sivachitralakshmi S, Chitra P and Bharathi S.** Quantum Keypoint Extraction And Matching for Autonomous Vehicles

**Manoj Gudi and Amina Mokdad.** Adapting Context based Header Compression for Autonomous Vehicles using AI

**Syed Uddin, Michał Grega and Mikolaj.** Leszczuk. Evaluating ABR Algorithms for Optimal Compression, Reliable Transmission, and Low Latency

**Lars Wingerath.** Contextualizing Innovation: A Case Study of BMW's Evolving Innovation Culture

**Asgari Housman.** TBD