# 2024 BMW SUMMER SCHOOL.

Boulangerie Patisserie

INTELLIGENT CARS ON DIGITAL ROADS.

### FRONTIERS IN MACHINE INTELLIGENCE.



- Functional Safety and Artificial Intelligence
- Advanced user experience and user interaction
- User acceptance and trust in autonomous systems
- The re-birth of semiconductors through Al
- Ethics of intelligent automation, Future of Work, UN SDG, Al regulation
- Latest trends: Generative AI, Quantum Machine Learning, 6G & New Space

10th French-German Summer School.

Fraueninsel, Chiemsee, Bavaria – Jun 30 - Jul 05, 2024.

**Check for updates: http://summerschool.bmw** 



















# 2024 BMW SUMMER SCHOOL. DRAFT SCHEDULE.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday		
09:00	Arrival by ferryboat	Keynote Al in Mobility Speaker: Dr. Peter Lehnert (BMW)	Al — Safety & Standards Speaker: Martin Glas (iabg)	Business Model Canvas Ideation Design Thinking Speaker: Alexandra Tran (Lexis Labs)	Lean Startup Machine  Speaker / Coach: Alexandra Tran (Lexis Labs)	Lean Startup Machine Pitch Day		
10:00		Morning Coffee  Mobility & Services of the Future Summer School Alumni 1/3 Speaker: Dr. Hendrik Schweppe (BMW) Dr. Oliver Klemp (BMW) Drt. Susanne Müller (Bardehle Pagenberg)	Morning Coffee  Opportunities in Al Summer School Alumni 3/3 Speaker: Dr. Sebastian Zimmermann (BMW) Julian Garbiso (Floware)					
11:00					Viking Al Speaker: Niko Vuokko (silo.ai)			
12:00			Ion Turcanu (Luxembourg Inst. of Techn.)					
13:00	Welcome Speaker: Prof. David Gesbert (EURECOM)	Lunch	Lunch	Lunch	Lunch	Closure, Farewell		
14:00	Optimistic for the future? Speaker: Anders Indeet  Designing the future Summer School Alumni 2/3			Lean Startup Machine	Responsible Al Speaker: Prof. Benjamin Rathgeber (HFPH)  Pan Startun Machine  DRAFT PROGRAMME.			
15:00	(Business Philosopher, Best Selling Author)  Coffee Break	Speaker: Prof. Patricia Alves-Oliveira (Univ. of Michigan) Prof. Francesco Walker (Leiden University) Dr. Natascha Weber (BMW)	Midweek Social Event	Speaker / Coach: Alexandra Tran (Lexis Labs)	Lean Startup Machine  Speaker / Coach:	DRAFT PROGRAMME.		
16:00	Creating the Future Speaker. Gilles Rabin (French Embassy) Florian Düzer (UnternehmerTUM) Oliver Wick (BMW)	Coffee Break			Alexandra Tran (Lexis Labs)			
17:00		Apero Poster Fair:		Coffee Break  Apero Poster Fair	Coffee Break  Apero Poster Fair:	<b>Keynote/breakout track</b> – Learning from invited speakers presenting their views and/or research.		
18:00	Poster Pitches			Aport Foster Fall	Apolo Costel Fail.	Poster track	– presentation & discussion of	
19:00	Cocktail Reception & Dinner	Dinner	Dinner	Dinner	Dinner	conference submissions.  Lean startup machine – develop innovative ideas		
20:00		Fireside Chat Speaker: Dr. Peter Lehnert (BMW),	mix and mingle	mix and mingle	mix and mingle	in a competitive startup pitching format.		
		Dr. Celine Laurent-Winter (BMW), Prof. David Gesbert (Eurecom), Judith Sanvincente (silo.ai)						

BMW Summer School | EURECOM/BMW/BayFrance/TUM | 2024

## 2024 BMW SUMMER SCHOOL. INVITED SPEAKERS.

### Pending



Sosina M. Gashaw · 2nd

Assistant Professor at Addis Ababa Institute of Technology Addis Ababa, Ethiopia

■ Experience: Addis Ababa Institute of Technology, FURFCOM, and 2 more

### Confirmed



Peter Dr. Lehnert - 1st

VP Technology and Innovation - E/E Architecture and Digital Car Ex... Bavaria, Germany

Experience: BMW Group, BMW, and 1 more



David Gesbert • 1st

Director, EURECOM

3K followers



Dr. Céline Laurent-Winter ♥ •2nd

Vice President Connected Vehicle Platforms

1K followers



Francesco Walker 1st

Assistant Professor in Applied Cognitive Psychology at Leiden... Leiden

且 Experience: Leiden University, Universiteit Twente, and 2 more



patrícia alves-oliveira· 1st

design for human-robot interaction

且 Experience: University of Michigan, Open Style Lab, and 4 more



Ion Turcanu · 1st

Head of the Edge Computing & Networks (EDGE) Group at... Esch-sur-Alzette

且 Experience: Luxembourg Institute of Science and Technology (LIST) and SnT, Interdisciplinary Centre for...



Julian Garbiso, Ph.D. 🛅 · 1st

Co-Founder & CEO at Floware | X-TECH, Ecole Polytechnique... Greater Paris Metropolitan Region

\$2 977 followers



Benjamin Rathgeber

Professor, Natur- und Technikphilosophie, Hochschule für Philosophie München



Dr. Natascha Weber (Harth) · 1st

Function Owner AI & Customer Intent @Digital Key at BMW Group Greater Munich Metropolitan Area

且 Experience: BMW Group, University of Glasgow, and 2 more



#### Anders Indset 10 - 2nd

Philosopher, Bestselling Author & Founder of The Quantum... Frankfurt

21K followers



#### Florian Doetzer - 1st

Entrepreneur, Innovator and Independent Advisor Garching

2K followers

Talks about #startup, #aerospace, #leadership, #entrepreneurship, and #mentoringmatters



Niko Vuokko **⊘** · 2nd

CBO Product AI, CTO at Silo AI

■ Experience: Silo Al, Kyyti Group, and 10 more



#### Maria Judith G. Sanvicente in . 2nd

Talks about #ai #digitalpayments, #digitalproducts,...
Greater Munich Metropolitan Area

且 Experience: Silo Al, Cascadia Author Services, and 5 more



#### Hendrik Schweppe ♥ ·1st

General Manager ConnectedDrive, BMW Group

 $\blacksquare$  Experience: BMW Group, Valley Development GmbH, and 4



#### Sebastian Zimmermann ⊗ ·1st

Head of Connected Vehicle Data and Platform Services @ BMW...

■ Experience: BMW Group, BMW Group Research and Technology, and 2 more



Oliver Klemp

Head of Seat Concepts @ BMW Munich



Alexandra Tran • 1st

Al Developer | Director Lexis Labs

2K followers



#### Dr. Susanne Müller 1st

Marketing Associate bei BARDEHLE PAGENBERG Munich

 $\blacksquare$  Experience: BARDEHLE PAGENBERG, WW (formerly Weight Watchers), and 6 more

**Jiho Jin, Jiseon Kim, Nayeon Lee, <u>Haneul Yoo</u>, Alice Oh and Hwaran Lee (KAIST).** KoBBQ: Korean Bias Benchmark for Question Answering

<u>Carmine Caponio</u>, <u>Umberto Montanaro</u>, <u>Patrick Gruber</u>, <u>Aldo Sorniotti</u>, <u>Zoltan Hankovszki</u> (<u>UoSurrey</u>). On torque-vectoring control for the obstacle avoidance scenario: a reinforcement learning case study

<u>Muhammad Naeem Tahir</u>, Marcos Katz, Ari Pouttu (UoOulu). Performance Analysis of Wireless Vehicular Communication with Embedded Safety Feature

Muhammad Naeem Tahir, Marcos Katz, Ari Pouttu (UoOulu).

Drone Assisted Vehicular Communication (DAVN)

**Zafer Attal.** Non-Intrusive Monitoring and Diagnosis Module for Future Automotive Electronic System **Muhammad Naeem Tahir, Marcos Katz, <u>Ari Pouttu</u> (UoOulu).** Heterogeneous Data for Enhanced Traffic Services (HDETS)

**Pietro Stano (UoSurrey).** Enhanced Active Safety through Integrated Autonomous Drifting and Direct Yaw Moment Control via Nonlinear Model Predictive Control

<u>Diego Gasco</u>, **Claudio Casetti (Torino)**. Al-Based Strategies for Maneuver Coordination Service During Channel Congestion

<u>Michael Neumeier</u>, Nael Fasfous, Axel von Arnim (FORTISS). SpikeClouds: Streaming, Spike-based Near-Sensor Processing for Fast and Efficient Object Detection

**Erdenebat Battseren (Tokyo Tech).** Attention-based Image Captioning for Low Resource Languages **Haneul Yoo, <u>Yongjin Yang</u>, Hwaran Lee (KAIST).** Code-switching Red-teaming Evaluation Benchmark for LLMs

Nicola Kolb (TUM). Scenario-based Testing of Autonomous Vehicles

<u>Soumaya Boussaha</u>, Solmaz Salimi, Antonioli Daniele, Aurelien Francillion, Thomas Barber (EURECOM). Enhancing Open Charge Point Protocol (OCPP) Privacy With End-to-End Taint Tracking

<u>Caleb Jeanniton</u>, Leia Stirling (UoMlchigan). Measuring the effect of a powered ankle exoskeleton on street crossing decisions

**Alexey Rolich (Sapienza).** Persistence and the Age of Information in 5G NR-V2X Sidelink Communications

**Fouzia Adjailia (DimensionLab).** Simulation Analysis of Car Aerodynamics within Tunnel Environment using Deep Learning: A Comparative Architectural Study

**Eugenio Tramacere (Torino).** Estimation of passenger comfort level for autonomous highway off-ramp maneuvers

<u>Sana Ben Hafsia</u>, Rejeb Hadiji (Paris Est). Existence results for non local operator problems Otto Piramuthu (Uolllinois). Trust/Cooperation in VANET-based Federated Learning

<u>Yassine Rezgui</u>, **Abdelmajid Khelil (IDP).** SynthAccident: Ensuring Trustworthiness in Generating Synthetic Datasets for Traffic Accident Scenes using Generative Al

<u>Javad Maheri</u>, Petros Elia (EURECOM). The Distributed Matrix Multiplication

Mohammadhossein Bahari (EPFL). Vehicle trajectory prediction works, but not everywhere

<u>Maxime Cancouet</u>, Romain Bellessort, Eric Nassor, Hervé Ruellan, Jean-Marie Bonnin (IMT / Canon). Evaluation of a Camera-based Infrastructure Accuracy in a Collision Scenario

Swantje Plambeck, Ali Salamati (TUHH / TUM). Data-Driven Safety Verification for Autonomous

Systems Modeled as Mealy Machines

**Niranjan Ballal, Thomas Soot, Michael Dlugosch (Fraunhofer).** Enhancing VRU Safety in Urban Traffic Through Data-driven Injury Prediction

<u>Gaetano Tavolo</u>, Davide Tavernini, Aldo Sorniotti (UoSurrey). Next-Generation Active Safety Systems Driven by V2X Connectivity

Ali Nadar, Jérôme Härri (Eurecom). 6G Al-as-a-Service (AlaaS) for CCAM Safe & Efficient Intersection Management

<u>Jiajie Fan</u>, Babak Gholami (BMW). Accelerating Development of Engineering Parts with Generative Al Anna Kravets (DFKI). Understanding the Influence of Social Networks on Decision Making in Digital Twins Abdelhadi Lammini (UoGrenoble). Implementation of Mixed Reality for Maintaining Geometric Coherence of Digital Twins

**Mahendra Nath Reddy E (UoHertfordshire).** Trustworthy ISL Sign Language Translator for Enhanced Mobility

Peicheng Liu (FAU). Current Research and Benefits of drive me&BMW