

Symposium Silicon Carbide as Quantum-Classical Platform
75th Anniversary of the Chair of Applied Physics
 Erlangen, Germany, September 14-15, 2023



Scientific program (as of September 13, 2023)

Thursday, September 14, 2023

Venue: Orangerie, Wassersaal, 09:00 - 13:10

09:00	Andreas Hirsch (FAU Vice President People)	Welcoming remarks
09:10	Kai Philip Schmidt (Speaker of FAU Profile Center Light.Matter.QuantumTechnologies)	Welcoming remarks
09:20	Heiko B. Weber (FAU Erlangen-Nürnberg, Germany)	A review of the evolution of the Chair of Applied Physics and novel experiments on light-matter interactions on silicon carbide
10:00	Michael Krieger (FAU Erlangen-Nürnberg, Germany)	Modern research data management in teaching and research
10:40	Coffee break	
11:10	Wolfgang J. Choyke (University of Pittsburgh, USA)	A snapshot of SiC history from before the creation of the solar system to the early nineteen seventies
11:50	Hiroyuki Matsunami (Kyoto University, Japan)	Long history of research and development of SiC for real application of power devices
12:30	Lunch	
13:10	Bus transfer + Coffee at lecture hall H	

Venue: Physics department, lecture hall H, 13:50 - 16:40

13:50	Jörg Wrachtrup (Universität Stuttgart, Germany)	Spin and photonic quantum technology with defects in SiC
14:30	André Hochreiter (FAU Erlangen-Nürnberg, Germany)	Electrochemical etching strategy for shaping monolithic 3D structures from 4H-SiC wafers
14:50	Coffee break	
15:20	Robert Leonard (Wolfspeed, USA)	Bulk Growth and Characterization of SiC for Power and Semi-insulating Substrates
16:00	Eva Weig (Technische Universität München, Germany)	Silicon carbide as a material for high Q nanomechanical systems

18:30	Symposium dinner	
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Friday, September 15, 2023

Venue: Physics department, lecture hall H, 09:00 - 16:00

09:00	Tsunenobu Kimoto (Kyoto University, Japan)	High-field phenomena in SiC material and devices
09:40	Peter Friedrichs (Infineon Technologies AG, Germany/Austria)	Transition to green energy – The role of SiC based components in power electronics
10:20	Coffee break	
10:50	Michel Bockstedte (Johannes Kepler Universität Linz, Austria)	Color centers in a glister of a gem stone: a theoretical perspective on defects in SiC from doping to quantum applications
11:30	Johannes Lehmeier (FAU Erlangen-Nürnberg, Germany)	The TS center in 4H-SiC
11:50	Takeshi Ohshima (National Institute for Quantum Science and Technology, Japan)	Sensing in SiC devices using silicon vacancy created by particle beam writing technique
12:30	Lunch	
13:10	Ralph Claessen (Julius-Maximilians-Universität Würzburg, Germany)	Atomic monolayers on SiC as 2D quantum materials
13:50	Alexander Fuchs (FAU Erlangen-Nürnberg, Germany)	The squeezable nanojunction technique as a tunable light-matter interface
14:10	Coffee break	
14:40	Robert Cernansky (Universität Ulm, Germany)	Silicon Carbide as a platform for integrated nanophotonic components
15:00	Roland Nagy (FAU Erlangen-Nürnberg, Germany)	Applications of color centers in 4H-SiC
15:40	Heiko Weber (FAU Erlangen-Nürnberg, Germany)	Closing remarks
optional	Lab tour	