

GaN Marathon 2026
June 7th - 10th, Florence, Italy

FULL TABLE PROGRAM

SUNDAY 7th, JUNE 2026									
14:00 Registration Opening (check-in open till 18:00)									
14:35 Short Courses - Only for Registered Attendees									
14:35	14:45			Patrick Stefano	Fay Leone	University of Notre Dame Fraunhofer IAF; Epitaxy		Short Courses Opening	Impact Ionization in Nitrides Semiconductors
14:45	15:45							Expanding the Boundaries of Nitride Epitaxy: From Carbon-Free Growth to Functional Doping and Novel Alloy	
15:45	16:45								
16:45 Coffee Break									
17:00	18:00			Debbeep	Jena	Cornell University		Polarization Doping in Nitrides: Advantages and Perspectives	
MONDAY 8th, JUNE 2026									
08:00 Registration Opening									
09:00 Conference Opening (Matteo Meneghini, General Chair)									
09:30 8A. Innovation on III-N device fabrication and characterization									
09:30	10:00	KN01	Keynote Talk	Hiroshi	Amano	Nagoya University		Fundamental challenges in realizing Ultrawide-bandgap AlGaN heterostructures	
10:00	10:30	KN02	Keynote Talk	Umesh	Mishra	UCSB		The many faces of GaN	
10:30	10:50	IN19	Invited Talk	Nicolas	Grandjean	EPFL		Non-radiative recombination in InGaN/GaN quantum wells: dislocations versus point defects	
10:50	11:00	CR28		Jonas	Lahnemann	Paul-Drude-Institut für Festkörperelektronik		The UV-C challenge: Insights from spatio- and time-resolved cathodoluminescence spectroscopy	
11:00	11:10	OP03		Rintaro	Kobayashi	Meijo University		Growth-Temperature Dependence and Physical Origin of Optical Gain in AlGaN-Based UV-B Laser Diodes	
11:10 Coffee Break + (PS1) POSTER SESSION 1									
11:30 8B. Advanced research in III-Nitrides (including ASPIRE session)									
11:30	11:40	CR37	ASPIRE Talk	Manuel	Fregolent	Università degli Studi di Padova		Development and characterization of p-channel FETs on low-doped p-GaN with advanced Ohmic contacts	
11:40	12:00	IN15	ASPIRE Invited Talk	Tomas	Palacios	MIT		GaN Technologies to Enable Back-Side Power Delivery	
12:00	12:20	IN21	ASPIRE Invited Talk	Martin	Kuball	Bristol University		Pathways for >3kV power devices: Opportunities in AlGaN and Gallium Oxide	
12:20	12:40	IN09	ASPIRE Invited Talk	Matteo	Meneghini	Università degli Studi di Padova		Impact Ionization in GaN HEMTs: Experimental Analysis and Reliability Implications	
12:40	13:00	IN20	ASPIRE Invited Talk	Srabanti	Chowdhury	Stanford University		GaN power electronics for new applications	
13:00	13:20	IS01	Invited Talk	Kolja	Haberland	LayTec AG		Connected metrology - in-situ and ex-situ metrology during front-end fabrication of GaN based vertical and lateral transistor structures	
13:20 Lunch Break 1 + (PS1) POSTER SESSION 1									
14:20 8C. Novel/optimized material properties and device structures									
14:20	14:30	GF03		Enrico	Brusattera	Ferdinand Braun Institut		Vertical GaN Trench MOSFETs Under Dynamic Switching Stress	
14:30	14:50	IN04	Invited Talk	Stefano	Leone	Fraunhofer IAF; Epitaxy		Beyond Conventional MOCVD: precursor chemistry unlocks next-generation nitrides HEMTs	
14:50	15:10	IN12	Invited Talk	Simon	Fichtner	University Kiel		Spontaneous Polarization and Ferroelectricity in III-N Semiconductors	
15:10	15:20	GF23		Hiroshi	Amano	Nagoya University		High-Gain AlGaN/InGaN DHBTs Enabled by Mg/GaN Annealing-induced Suppression of Surface Recombination	
15:20	15:40	IN13	Invited Talk	Asa	Haglund	Chalmers University		Are photonic crystal surface emitting lasers perfect lasers or lasers for perfectionists?	
15:40	16:00	IN07	Invited Talk	Motoaki	Iwaya	Meijo University		AlGaN UV-B Laser Diodes for Industrial Applications: Realization of Sharp Heterointerfaces via Low-Temperature MOVPE Growth	
16:00	16:20	IN14	Invited Talk	Mitsuru	Funato	Kyoto University		Blue to red micro-LEDs	
16:20 Coffee Break + (PS1) POSTER SESSION 1									
16:40 8D. Industrial perspective and advanced characterization									
16:40	17:00	IN10	Invited Talk	Shigefusa	Chichibu	Tohoku University		Causes and countermeasures for the operation-induced power degradation issues in 275-nm-band AlGaN-based MQW LEDs	
17:00	17:20	IN03	Invited Talk	Ulrich	Schwarz	TU Chemnitz		Far-field and mode prediction in photonic crystal surface emitting lasers (PCSELs)	
17:20	17:30	OP12		Sven	Gerhard	amsOSRAM		Next-Gen high-power blue and green GaN lasers	
17:30	17:50	IS06	Invited Talk	Ferdinando	Iucolano	STMicrolab		Impact of a C-related Buffer traps on 650V GaN HEMTs: Correlation between dynamic RON drift and COSS/COSS behavior	
17:50	18:10	IS05	Invited Talk	Nicola	Modoto	Infinion Technologies Austria AG		From Regression Analysis in GaN HEMTs towards Voltage Proliferation and Aging Models	
18:10	18:30	IS03	Invited Talk	Raoul	Joly	Beneq		Impact of Atomic Layer Deposition Surface Passivation on the Electrical Performance of p-GaN HEMT Devices	
TUESDAY 9th, JUNE 2026									
08:30 9A. Exploiting III-N properties for improved performance and reliability 1 (including ASPIRE session)									
08:30	08:40	OP13		Francesco	Piva	Università degli Studi di Padova		Origin of the positive ageing in 265 nm UV-C LEDs and its TCAD modeling	
08:40	09:00	IN18	Invited Talk	Tim	Wernicke	TU Berlin		The role of point defects in AlGaN-based far-UV-C LEDs	
09:00	09:20	IN17	Invited Talk	Maki	Kushimoto	Nagoya University		Operational Characteristics of AlGaN Deep-Ultraviolet Laser Diodes on Bulk AlN Substrates	
09:20	09:40	IS07	Invited Talk	Thomas	Filz	ams OSRAM		µLED-applications in automotive, visualization and communication	
09:40	10:00	IN23	ASPIRE Invited Talk	Debbeep	Jena	Cornell University		Temperature dependent electrical characteristics of ultrawide bandgap high Al-content AlGaN electronics	
10:00	10:10	GF16	ASPIRE Talk	Yidi	Yin	University of Bristol		Characterization and Modeling of Vertical Diodes with AlGaN-Based p-type Distributed Polarization Doping	
10:10	10:20	CR40	ASPIRE Talk	Amra Maria	Vianello	Università degli Studi di Padova		Study of Beryllium Acceptor States in Aluminum Nitride Through Cathodoluminescence Analysis	
10:20	10:30	GF26	ASPIRE Talk	Yingying	Lin	Nagoya University		Enhancement-mode AlN/GaN/AlN HEMTs	
10:30	10:40	GF20	ASPIRE Talk	Yu-Hsin	Cindy	Cornell University			
10:40 Coffee Break + (PS2) POSTER SESSION 2									
11:00 9B. High efficiency/high frequency devices and modeling									
11:00	11:10	MS13		Pierpaolo	Palestri	University of Modena and Reggio Emilia		Modeling AlGaN/GaN HEMTs degradation due to hot carrier injection in the passivation layer	
11:10	11:30	IN16	Invited Talk	Elison	Matioli	EPFL		Leading edge roadmap for GaN devices	
11:30	11:50	IN06	Invited Talk	Nadine	Collaert	imec		RF GaN Today: Maturity, Momentum, and What Comes Next	
11:50	12:00	CR09		Nicolò	Zagni	University of Modena and Reggio Emilia		Dispersion Effects in 0.25µm GaN RF HEMTs Integrating Ultra-Thin InGaN Back-Barrier	
12:00	12:20	IN08	Invited Talk	Chris	Van de Walle	UCSB		Role of defects and impurities in efficiency and degradation of nitride devices	
12:20 Lunch Break 2 + (PS2) POSTER SESSION 2									
13:20 9C. Innovation on Wide and Ultra Wide Bandgap Devices (including ASPIRE session)									
13:20	13:30	MS14	ASPIRE Talk	Jia	Wang	Nagoya University		Thickness-Dependent Thermal Annealing of Magnesium on Gallium Nitride: Mechanisms on Barrier Modulation and Carrier Transport	
13:30	13:50	IN22	ASPIRE Invited Talk	Huili Grace	Xing	Cornell University		AlN XEMTs – a new kid on the block	
13:50	14:10	IN11	Invited Talk	Siddharth	Rajon	Ohio State University		High-Performance Ultra-Wide Bandgap AlGaN Transistors	
14:10	14:20	CR13		Luca	Mazzoni	EPFL		A 3.9 kV GaN-on-Si Polarization Superjunction SBD with Low Specific On-Resistance and Repeatable OFF-State up to 150°C	
14:20	14:30	CR39		Agnieszka	Corley-Wicak	ESRF - European Synchrotron Radiation Facility		Operando and multimodal X-ray microscopy of strain and electromechanical coupling in GaN-on-Si HEMTs	
14:30	14:40	RF03		Hakan Cankat	Gur	EPFL		Displacement-Field-Enhanced GaN HEMTs with $fT_{MAX} = 220/420$ GHz for Efficient Amplification at W-Band and Beyond	
16:40 (PS3) POSTER SESSION 3 (Fornace Sarmontana)									
20:00 CONFERENCE NETWORKING DINNER (Fornace Sarmontana)									
WEDNESDAY 10th, JUNE 2026									
09:00 10A. Exploiting III-N properties for improved performance and reliability 2 (including ASPIRE session)									
09:00	09:10	CR02	ASPIRE Talk	Minyeong	Kim	University of Bristol		Post-Etch H3PO4 Surface Treatment for Reliability Enhancement in β -Ga2O3 Trench Schottky Barrier Diodes	
09:10	09:20	GF36	ASPIRE Talk	Jimmy	Encomendero	Cornell University		Resonant Tunneling Transport in GaN/AlN Multiple Barrier Heterostructures	
09:20	09:30	GF14	ASPIRE Talk	Aias	Asteris	Cornell University		High Mobility Multiple-Channel AlScN/GaN Heterostructures	
09:30	09:50	IN02	ASPIRE Invited Talk	Samuel	Graham	University of Maryland		Thermal Management of AlGaN UWBG Devices for Next-Generation RF Applications	
09:50	10:10	IN01	Invited Talk	Tetsuo	Narita	Toyota Central R&D Labs., Inc.		Control of Positive and Negative Bias Instability in GaN MOSFETs Using Crystalline AlN Interfacial Layer Technology	
10:10	10:30	IN05	Invited Talk	Patrick	Fay	University of Notre Dame		Impact Ionization in Ultra-Wide Band Gap III-Ns: Measurement and Device Implications	
10:30 Coffee Break									
10:50 10B. Optimizing and exploiting material properties for advanced reliability									
10:50	11:00	OP05	ASPIRE Talk	Pierce	Loneragan	Cornell University		AlScN as an Electron Blocking Layer in Blue Light-Emitting Diodes: A First Look	
11:00	11:20	IS04	Invited Talk	Kazutada	Ikenaga	Nippon Sanso		Enhancing Nitride Epitaxy Through Integrated MOCVD Technology	
11:20	11:40	IS02	Invited Talk	Thorsten	Zweipfennig	Axtron SE		Enabling GaN HEMT manufacturing on 300 mm Si substrates	
11:40	12:00	IN24	Invited Talk	Enrico	Zanoni	Università degli Studi di Padova		Scaling of GaN HEMTs for microwave and millimeter-wave applications: deep level effects and reliability	
12:00	12:20	IS08	Invited Talk	Tania	Hemakumara	Oxford Instruments		Innovative Plasma Processing Solutions for High Volume Manufacturing of GaN devices	
12:20	12:30	GF34	Invited Talk	Yuji	Zhao	Rice University		Selective Area Diamond Growth on GaN for Thermal Management of High Power Devices	
12:30 Closure (Matteo Meneghini, General Chair)									