

**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		Enrico	Zanoni	Università degli Studi di Padova	Short Courses Opening			
14:45	15:45		Patrick	Fay	University of Notre Dame	Impact Ionization in Nitrides Semiconductor			
15:45	16:45		Stefano	Leone	Fraunhofer IAF: Epitaxy	Expanding the Boundaries of Nitride Epitaxy: From Carbon-Free Growth to Functional Doping and Novel Alloy			
16:45 Coffee Break									
17:00	18:00		Debddeep	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 AlGaIn 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 InGaIn/GaN quantum wells: dislocations versus point defects		
10:50	11:00	CR28		Jonas	Lähnemann	Paul-Drude-Institut für Festkörperelektronik	The UV-C challenge: Insights from spatio- and time-resolved cathodoluminescence spectroscopy		
11:00	11:10	OPO3		Rintaro	Kobayashi	Meijo University	Growth-Temperature Dependence and Physical Origin of Optical Gain in AlGaIn-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 AlGaIn 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	Brusatera	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 AlGaIn/InGaN DBTs 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	AlGaIn 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 AlGaIn-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		Gerhard	Sven	amsOSRAM	Next-Gen high-power blue and green GaN lasers		
17:30	17:50	IS06	Invited Talk	Ferdinando	Lucolano	STMicroelectronics	Impact of a C-related Buffer traps on 650V GaN HEMTs: Correlation between dynamic RON drift and COSS/QOSS behavior		
17:50	18:10	IS05	Invited Talk	Nicola	Molodo	Infineon Technologies Austria AG	From Regression Analysis in GaN HEMTs towards Voltage Proliferation and Aging Models		
18:10	18:30	IS03	Invited Talk	Raoul	Joly	Benq	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 AlGaIn-based far-UVVC LEDs		
09:00	09:20	IN17	Invited Talk	Maki	Kushimoto	Nagoya University	Operational Characteristics of AlGaIn 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	Debddeep	Jena	Cornell University	Polar heterostructures on bulk AlN substrates and their use in electronic and photonic devices		
10:00	10:10	GF16	ASPIRE Talk	Yidi	Yin	University of Bristol	Temperature dependent electrical characteristics of ultrawide bandgap high Al-content AlGaIn electronics		
10:10	10:20	CR40	ASPIRE Talk	Ambra Maria	Vianello	Università degli Studi di Padova	Characterization and Modeling of Vertical Diodes with AlGaIn-Based p-type Distributed Polarization Doping		
10:20	10:30	GF26	ASPIRE Talk	Yingying	Lin	Nagoya University	Study of Beryllium Acceptor States in Aluminum Nitride Through Cathodoluminescence Analysis		
10:30	10:40	GF20	ASPIRE Talk	Yu-Hsin Cindy	Chen	Cornell University	Enhancement-mode AlN/GaN/AlN HEMTs		
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 AlGaIn/GaN HEMTs degradation due to hot carrier injection in the passivation layer		
11:10	11:30	IN16	Invited Talk	Elison	Maticoli	EPFL	Novel technologies for GaN Power Electronics: Reducing RON, Increasing VBR and Improving Dynamic Operation		
11:30	11:50	IN06	Invited Talk	Nadine	Collaert	imec	RF GaN Today: Maturity, Momentum, and What Comes Next		
11:50	12:00	CR09		Nicola	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	Huiji Grace	Xing	Cornell University	AlN XHEMTs – a new kid on the block		
13:50	14:10	IN11	Invited Talk	Siddharth	Rajan	Ohio State University	High-Performance Ultra-Wide Bandgap AlGaIn Transistors		
14:10	14:20	CR13		Luca	Mazzone	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-Wiaciak	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		
15:45 16:00 BUS pick-up to Fornace Sammontana									
16:40 (PS3) POSTER SESSION 3 (Fornace Sammontana)									
19:00 CONFERENCE NETWORKING DINNER (Fornace Sammontana)									
23:00 BUS pick-up back to Florence									
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 AlGaIn 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	Zweifelgnig	Aixtron 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		Yuji	Zhao	Rice University	Selective Area Diamond Growth on GaN for Thermal Management of High Power Devices		
12:30 Closure (Matteo Meneghini, General Chair)									