



# Program

# 7-9 July 2026

Campus Universitaire  
Robert Badinter

16 Rue Jules Vallès  
Brive-la-Gaillarde



# Tuesday 7<sup>th</sup> July

<b>Chair: Prof. NALLATAMBY Jean-Christophe</b>		<b>Opening Session</b>
9h00-9h20	NALLATAMBY JC & DASGUPTA N.	Welcome Address
9h20-9h35	BLANQUET Véronique & OUAKED Said	Introduction to the franco-indian research bridge workshop of GaN HEMTs
9h35-9h50	ALLARD Olga	European and International Division Aid at the Institute for Engineering and Systems Sciences INSIS-CNRS
9h-50-10h05	BILA stéphane	Overview of research at Klim
10h05-10h20	BARATAUD Denis & FABRE Frédéric	European Master for Industry in Microwave Electronics and Photonics (EMIMEP)
30-Minute	Coffee break with industrial partners	

<b>Chair: Prof. DASGUPTA Nandita</b>		<b>Emerging Horizons: Environmental Impacts on Immunity and Robustness in GaN Technology</b>
10h50-11h30	KAVERI Srinu - Invited talk	Impact of changing environment on our immune system : Why this fuss?
11h30-11h50	BACQUE Ludovic	GaN technology for High Intensity Radiated Field applications (HIRF) applications:a new topology for improving the VSWR ruggedness
11h50-12h10	GATARD Emmanuel	Digital linearization of wideband doherty GaN Power Amplifier for 5G FR1 and new 6G applications
12h10-12h20	Poster Session	Poster Flash Talks
12h30-14h00	Lunch time	Poster Session

<b>Chair: Prof. CHAKRAVORTY Anjan</b> <b>Co-chair: Dr. MARTIN Audrey</b>		<b>III-V and GaN Technologies for Next-Generation Ka-Band RF System: Design, Characterization, and Roadmaps.</b>
14h00-14h20	MOUSSA Mohammad	Multi-Level GaN MMIC Supply Switches for Ka-Band Supply Modulated Power Amplifier
14h20-14h40	MOLLA Gobezie	Design of a GaN MMIC power amplifier for 5G MIMO applications in the FR2 band
14h40-15h00	KAKOU Charles & AL HAJJAR Ahmad	MESOC III-V GaAs & GaN Technology Roadmaps for SATCOM: Enabling Next-Generation RF Performance from Ka- to W-Band
15h00-15h20	LEVENTOUX Margot	CW power and multitone linearity measurements of AlN/GaN HEMT using a passive load-pull setup in Ka band.
30-Minute	Coffee break with industrial partners	

<b>Chair: Prof. NAIR Deleep</b> <b>Co-chair: Dr. PATRIACHE Gilles</b>		<b>GaN Electronics: From Physics-Based Modeling to Circuit Integration and System Characterization</b>
15h50-16h10	DUTTA Gourab	Physics based compact Modeling of p-GaN Gate AlGaIn/GaN HEMTs
16h10-16h30	PIOTROWICZ Stéphane	Overview of GaN activities at III-V Lab : From transistor to package amplifier
16h30-16h50	GUPTA Sayak Dutta	Monolithic e-mode GaN HEMT & Bidirectional Switch using d-mode GaN HEMTs
16h50-17h10	BLONDY Pierre	Integrated PCM Circuits for RF Applications
17h10-17h30	RIMLINGER Alain	How to measure amplifier linearity using EVM and ACPR on PNA-X

17h30-18h00	Violoncellist, PhD AZZAM Rayan	Be captivated by the Oriental melodies and Rayan's improvisational bowing.
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# Wednesday 8<sup>th</sup> July

<b>Chair: Dr. SOMMET Raphaël</b> <b>Co-chair: Prof. GOSH Ruma</b>		<b>Thermal Dynamics in GaN HEMTs: Characterization and Modeling Self-Heating in GaN HEMTs</b>
8h30-8h50	PARAMASIVAN Vigneshwara Raja	Field-Plate Influences on Electrothermal Properties of AlGaIn/GaN HEMTs
8h50-9h10	BOUSSEKRI Mohammed	Coupled TCAD and 3D ANSYS Thermal Simulation for Hotspot Analysis in GaN HEMTs
9h10-9h30	STRENAER Raphaël	Time-resolved self-heating temperature measurements of GaN-based HEMTs using CeO2 Raman micro-thermometers
9h30-9h50	CHAKRAVORTY Anjan	SPICE modeling of peak temperature in GaN HEMTs
9h50-10h10	FLEURY Emilie	Correction of heat conduction using relativistic equation in HEMT GaN, multi-scale conduction impact and evidence of trap/thermal RF coupling
30-Minute	Coffee break with industrial partners	

<b>Chair: Dr. PIOTROWICZ Stéphane /</b> <b>Co-chair: Prof. DUTTA Gourab</b>		<b>From Device Physics to FOWLP Packaging: Advanced GaN HEMT Concepts and Circuit Architectures</b>
10h40-11h20	DASGUPTA Nandita - Invited talk	Enhancement-mode GaN HEMT – A Multi-pronged Approach at IIT Madras
11h20-11h40	VIGNESWARAN Sujevan & DELTIMPLE Nathalie	Twisted Hybrid Coupler-Based dedicated to PA architectures in 150 nm GaN technology for 5G FR2 Applications
11h40-12h00	KUMARI Pallavi	Cross-Talk in C-Doped GaN HEMTs Induced by Two-Dimensional Hole Gas Conduction
12h00-12h20	PETIT Tao	Modeling Methods for GaN Circuits in FOWLP Packages with Quantitative Model Validation
12h30-14h00	Lunch time	Poster Session

<b>Chair: Prof. DELTIMPLE Nathalie</b> <b>Co-chair Dr. BOUYASSE Philippe</b>		<b>Power and RF GaN: From New RF Horizons to Advanced Measurement Techniques Insights</b>
14h00-14h20	DI GIACOMO BRUNEL Valéria	New horizon for GaN RF technologies
14h20-14h40	BEN HAMMOU Lyes	Device-Level Linearity characterization of mmWave GaN HEMTs: Trapping Mitigation and Two-Tone Active Load-Pull at 40 GHz
14h40-15h00	BEAUDOIN Laurent	Power Electronics: Which Probe for Which Measurement
15h00-15h20	HALLEPEE Clément	Time-Domain Measurements of GaN Amplifier driven by M-QAM modulated carrier generator
30-Minute	Coffee break with industrial partners	

<b>Chair: Prof. DASGUPTA Amitava</b>		<b>From Device to Network: Innovations in RF Metrology, Simulation, and GaN Technology</b>
15h50-16h10	HAMOUCHEI El Galil	Simulating Nonlinear Circuits with Pseudo-Random Modulated Signals: Harmonic Balance for EVM Analysis.
16h10-16h30	LESECC Marie	ScAlN/GaN-on-Si (111) HEMTs for RF applications
16h30-16h50	PASSERIEUX Damien	RF-Net: the French academic network of Radio Frequency Metrology Platforms

**17h00-18h00** **Chair: Dr. LECLERC Eric** **How do we ensure across the RF/microwave value chain measurement coherence from wafer to system: shared challenges and responsibilities**

18h15	Gala Dinner "Le Maraicher"	📍 Collonges-la-Rouge
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# Thursday 9<sup>th</sup> July

Chair: Prof. PARAMASIVAN Vigneshwara Raja  
Co-chair: Dr. MEDREL Pierre

**GaN and III-V Wide Bandgap Technologies: From Device Physics and Reliability to Defense and 5G mmWave Applications**

8h30-8h50 AUBRY Raphael

Need for DEFENSE applications in III-V, GaN, and other wide bandgap technologies.

8h50-9h10 AMINAJIA TAZIFUA Bertus

Investigation of traps in surface treatment configurations of Fe-doped InAlN/GaN HEMT transistors.

9h10-9h30 MOKRANE Saib

Design of a 5W, 28–32GHz Doherty Power Amplifier Using 150-nm GaN Technology for 5G NR FR2 mmWave Communications

20-Minute Coffee break with industrial partners

Chair: Prof. DUTTA GUPTA Sayak  
Co-chair: Dr. LESECQ Marie

**Expanding GaN Horizons: From Advanced Material Characterization to Deep Learning and Healthcare Sensors**

9h50-10h10 SOMMET Raphaël

Advanced Measurement Techniques and Comprehensive Analysis of Trapping and Thermal Effects in GaN-Based HEMTs

10h10-10h30 PATRIACHE Gilles

Structural and chemical study of ohmic contacts on GaN and AlGaN layers

10h30-10h50 ROUSSEAU Sébastien

Deep Learning Modeling for GaN HEMTs

10h50-11h10 GOSH Ruma

Sensors for Healthcare Monitoring and Role of GaN in it

11h10-11h20 NALLATAMBY Jean-Christophe

Closing Address

11h20-12h20 Lunch time

## Afternoon Social Event

Departure for Lascaux IV : 12h30

 The International Cave Art Center Lascaux IV



## Poster Session – Lunch time

SILVA DOS SANTOS José A comparison of linearity figures of merit using two passive load-pull setups

KAKOU Luc Multi-physics measurements and modeling of GaN devices for SiP co-integration in FOWLP technology

LECOEUR Lucas Study and Modeling of the impact of ionization radiation on innovative high-speed devices

WOLDE Messeret Energy Efficiency Analysis of a Supply Modulated Power Amplifier for Ka-Band 5G Active Antennas

PASSERIEUX Damien RF-Net: the French academic network of Radio Frequency Metrology Platforms

GAILLARD Florent XLIM Brive: Advanced Measurement and Testing Facility

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