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**Main menu**

- [Welcome](#)
- [Scope of Papers](#)
- [Program ▼](#)
- [Schedule at a glance](#)
- [Full Program](#)
- [Tutorials](#)
- [Keynote Speeches](#)
- [Invited Talks](#)
- [Invited awarded papers](#)
- [Workshops](#)
- [Registration ▼](#)
- [Author's Corner ▼](#)
- [Exhibitor ▼](#)
- [Sponsoring](#)
- [Committees ▼](#)
- [Accommodation](#)
- [Conference Venue](#)
- [Visit Toulouse](#)

**HELP**

- [@ Contact](#)

**Program > Full Program**

**ESREF2019 CONFERENCE PROGRAM**

**Monday, September 23**

	Tutorial 1
	Room Guillaumet 1
<b>08:50</b>	<i>The Future of Reliability Testing</i> J. McPherson McPherson Reliability Consulting LLC
	Tutorial 3
	Room Guillaumet 2
<b>08:50</b>	<i>Introducing layered dielectrics in solid-state microelectronic devices</i> M. Lanza Institute of Functional Nano & Soft Materials, Soochow University
<b>10:30</b>	Coffee Break
	Tutorial 2
	Room Guillaumet 1
<b>10:50</b>	<i>Reliability of Power Electronic Packaging</i> O. Wittler, A. Middendorf Fraunhofer IZM
	Tutorial 4
	Room Guillaumet 2
<b>10:50</b>	<i>Methodology of soft error expertise applied for the use of embedded electronic devices in natural radiation environments</i> L. Artola ONERA - The French Aerospace Lab
<b>12:30</b>	Lunch

Session C1 Progress in Failure Analysis: Defect Detection and Analysis

Room Cassiopée

chairpersons I. DE WOLF  
J. GOXE

- 08:30** Invited paper  
*A completely new scanning electron microscope (SEM)*  
R. Schröder  
Univ. Heidelberg
- 09:10** **C1-1** *Cold temperature power on reset use case*  
**#193** M. Van Veenhuizen, D. Looijmans, M. Vogels, M. Van Aalten, P. Van Der Crujisen, P. Gibas, S. Ersoy  
NXP Semiconductors
- 09:30** **C1-2** *Convolutional neural network (CNNs) based image diagnosis for failure analysis of power devices*  
**#109** A. Watanabe, N. Hirose, H. Kim, I. Omura  
Kyushu Institute of Technology
- 09:50** **C1-3** *Using infrared thermal responses for PCBA production tests: Feasibility study*  
**#250** N. El Belghiti Alaoui<sup>1</sup>, A. Cassou<sup>2</sup>, P. Tounsi<sup>2</sup>, A. Boyer<sup>2</sup>, A. Viard<sup>1</sup>  
<sup>1</sup>ACTIA Automotive, <sup>2</sup>LAAS
- 10:10** **C1-4** *Quantitative fractography analysis of a chip crack in a Si power MOSFET*  
**#163** R. Schneider  
Infineon Technologies AG

Session F2-1 GaN devices reliability

Room Guillaumet 1

chairpersons F. MORANCHO  
L. THEOLIER

- 09:10** **F2-1-1** *Buffer breakdown in GaN-on-Si HEMTs: a comprehensive study based on a sequential growth experiment*  
**#185** M. Borga<sup>1</sup>, M. Meneghini<sup>1</sup>, D. Benazzi<sup>1</sup>, E. Canato<sup>1</sup>, R. Püsche<sup>2</sup>, J. Derluyn<sup>2</sup>, F. Medjdoub<sup>3</sup>, I. Abid<sup>3</sup>, G. Meneghesso<sup>1</sup>, E. Zanoni<sup>1</sup>  
<sup>1</sup>Department of information engineering, University of Padova, <sup>2</sup>EpiGaN, <sup>3</sup>CNRS
- 09:30** **F2-1-2** *Stability and degradation of isolation and surface in Ga<sub>2</sub>O<sub>3</sub> devices*  
**#167** C. De Santi<sup>1</sup>, A. Nardo<sup>1</sup>, M. H. Wong<sup>2</sup>, K. Goto<sup>3</sup>, A. Kuramata<sup>4</sup>, S. Yamakoshi<sup>5</sup>, H. Murakami<sup>3</sup>, Y. Kumagai<sup>3</sup>, M. Higashiwaki<sup>2</sup>, G. Meneghesso<sup>1</sup>, E. Zanoni<sup>1</sup>, M. Meneghini<sup>1</sup>  
<sup>1</sup>University of Padova, <sup>2</sup>National Institute of Information and Communications Technology, <sup>3</sup>Department of Applied Chemistry, Tokyo University of Agriculture and Technology, <sup>4</sup>Novel Crystal Technology, Inc., <sup>5</sup>Tamura Corporation
- 09:50** **F2-1-3** *Characterization of charge trapping mechanisms in GaN vertical Fin FETs under positive gate bias*  
**#177** M. Ruzzarin<sup>1</sup>, C. De Santi<sup>1</sup>, F. Chiocchetta<sup>1</sup>, M. Sun<sup>2</sup>, T. Palacios<sup>2</sup>, E. Zanoni<sup>1</sup>, G. Meneghesso<sup>1</sup>, M. Meneghini<sup>1</sup>  
<sup>1</sup>University of Padova, <sup>2</sup>MIT
- 10:10** **F2-1-4** *Stress and Recovery Dynamics of Drain Current in GaN HD-GITs Submitted to DC Semi-ON Stress*  
**#111** V. Padovan<sup>1</sup>, C. Koller<sup>2</sup>, G. Pobegen<sup>2</sup>, C. Ostermaier<sup>3</sup>, D. Pogany<sup>4</sup>