

IRT publications and communications - December 2018



IRT publications are listed by IRT Domains and Competence Centers as below:

High Performance Multifunctional Materials

- Composite Materials & Processes
- Metallic Materials & Processes
- Innovative Assemblies & Surfaces

More Electrical Aircraft

- Dielectrics, Conductors & Plasmas
- Components Modeling & Reliability
- Power Technologies & Integration

Embedded Systems

- Intelligent Systems & Data
- Digital Signal Processing
- Multidisciplinary Design Optimization
- Systems Engineering

High Performance Multifunctional Materials

Composite Materials & Processes

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
V. Bedel, M. Bouquet, E. Dantras and A. Lonjon	Influence of silver nanowires on thermal and electrical behaviors of a poly(epoxy) coating for aeronautical application	Journal of Applied Polymer Science	vol 135, pp 46829	2018	https://doi.org/10.1002/app.46829
E. Baché, C. Dupleix-Couderc, E. Arquis and I. Berdoyes	Impregnation of composite materials: a numerical study	Applied Composite Materials	pp 1 - 19	2017	https://doi.org/10.1007/s10443-017-9666-9
C. Bessaguet, E. Dantras, C. Lacabanne, M. Chevalier and G. Michon	Piezoelectric and mechanical behavior of NaNbO ₃ / PEKK lead-free nanocomposites	Journal of Non-Crystalline Solids	vol 459, pp 83 - 87	2017	https://doi.org/10.1016/j.jnoncrsol.2016.12.030
M. Alexandre, C. Bessaguet, C. David, E. Dantras and C. Lacabanne	Piezoelectric properties of polymer/lead-free ceramic composites	Phase Transitions	vol 89, pp 708 - 716	2016	https://doi.org/10.1080/01411594.2016.1206898
D. Carponcin, E. Dantras, G. Michon, J. Dandurand, G. Aridon, F. Levallois, L. Cadiergues and C. Lacabanne	New hybrid polymer nanocomposites for passive vibration damping by incorporation of carbon nanotubes and lead zirconate titanate particles	Journal of Non-Crystalline Solids	vol 409, pp 20-26	2015	http://dx.doi.org/10.1016/j.jnoncrsol.2014.11.008
N. Causse, S. Benchimol, L. Martineau, D. Carponcin, A. Lonjon, M. Fogel, J. Dandurand, E. Dantras and C. Lacabanne	Polymerization study and rheological behavior of a RTM6 epoxy resin system during preprocessing step	Journal of Thermal Analysis and Calorimetry	vol 119, pp 329 - 336	2015	http://dx.doi.org/10.1007/s10973-014-4147-y

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
G. Bernhart and G. Erb	Investigation of continuous induction welding of C/PAEK laminates	ECCM18 (18th European Conference on Composite Materials)	Athens, Greece	2018	Oral	
N. Guel, N. Godin, O. Caty, P. Reynaud, S. Mahdi and F. Bouillon	Multi-sensor acoustic emission analysis towards the study of oxide-based ceramic matrix composites damage behavior	ECCM 18 (18th European Conference on Composite Materials)	Athens, Greece	2018	Oral	
V. Bedel, M. Bouquet, A. Lonjon and E. Dantras	Étude du phénomène de percolation électrique dans les composites à matrice polymère pour une application de protection foudre sur structures aéronautiques	JNC 20 (Journées Nationales sur le Composite)	Champs sur Marne, France	2017	Oral	
M. Broutelle, F. Lachaud, C. Dupleix-Couderc and A. Daidié	Comportement en matage de composites à matrice céramique oxyde/oxyde	JNC 20 (20es Journées Nationales sur les composites)	Champs sur Marne, France	2017	Oral	
S. A. Chelaghma, J.-N. Périé, P. Marguerès, J.-C. Passieux and A. Vinet	Crystallization kinetic modelling of multifunctional thermoplastic composites... First step towards mechanical and electrical optimization	SAMPE Europe Student Symposium	Stuttgart, Germany	2017	Oral	
L. Serrano, P. Olivier and J. Cinquin	Compaction Behavior Of Out-of-Autoclave Prepreg Materials	ESAFORM 2017 (20th International Conference on Material Forming)	Dublin, Ireland	2017	Oral	https://doi.org/10.1063/1.5007996
L. Serrano, P. Olivier and J. Cinquin	Modélisation des cinétiques de polymérisation de résines destinées à la fabrication Hors Autoclave	JNC 20 (20e Journées Nationales sur les composites)	Champs sur Marne, France	2017	Oral	
L. Barriere, O. Cherrier, J.-C. Passieux, M. Bouquet and J.-F. Ferrero	3D Digital Image Correlation Applied to Birdstrike Tests	iDICS 2016 (International DIC Society)	Philadelphia, USA	2016	Oral	http://dx.doi.org/10.1007/978-3-319-51439-0_4

L. Barriere, M. Bouquet and J.-F. Ferrero	Bird strike shielding materials: development of a high velocity impact test platform	SAMPE Europe 2015	Amiens, France	2015	Oral	
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Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
V. Bedel, M. Bouquet, E. Dantras and A. Lonjon	Electrical Characterization of High Conductive Coating for CFRP Lightning Strike Protection	IC3 2018 (6th International Carbon Composites Conference)	Arcachon, France	2018	Oral
M. Chevalier, C. Bessaguet, L. Quiroga-Cortès, E. Dantras and G. Michon	Experimental analysis of non-linear damping performance in composites materials thanks to local transduction-dissipation phenomenon	IMAC XXXVI (Engineering extremes: unifying concepts in shock, vibration and nonlinear mechanics. Session : Applications for non-linear damping)	Orlando, USA	2018	Oral
N. Guel, N. Godin, O. Caty, P. Reynaud, F. Bouillon and C. Dupleix-Couderc	Etude du comportement mécanique de CMC oxyde/oxyde : apport des essais in-situ (MEB, Tomo-X synchrotron) pour la compréhension de l'émission acoustique sur structures macroscopiques	JST : END-CND – Journées Scientifiques et Techniques des Contrôle et d'Evaluation Non Destructifs (AMAC)	Bordeaux, France	2018	Oral
A. Malho Rodrigues, G. Bernhart and K. Labastie	Fiber/matrix interfacial analysis of thermostable thermoplastic composites	IC3 2018 (6th International Carbon Composites Conference)	Arcachon, France	2018	Oral
G. Mounic, M. Chevalier and K. Labastie	Amélioration de la conductivité électrique dans un matériau composite à matrice thermoplastique haute performance pour des applications de pièces primaires aéronautiques	GFP 2018 (47e colloque national du Groupe Français d'études et d'applications des Polymères)	Toulouse, France	2018	Oral
L. Quiroga Cortés, L. Barriere, C. Bessaguet, M. Chevalier, G. Michon and E. Dantras	Transduction-dissipation phenomenon for non-linear damping in composite materials: from experimental to modeling analysis	IDETC/CIE 2018 - 30th Conference on Mechanical Vibration and Noise (International Design Engineering Technical Conferences & Computers and Information in Engineering Conference)	Québec, Canada	2018	Oral
L. Quiroga Cortés, C. Bessaguet, M. Chevalier, E. Dantras and G. Michon	Passive Damping concept for composites structures based on thermoplastic nanocomposites	GFP 2018 (47e colloque national du Groupe Français d'études et d'applications des Polymères)	Toulouse, France	2018	Oral
L. Quiroga Cortés, C. Bessaguet, M. Chevalier, G. Michon and E. Dantras	Mise en oeuvre de composites multifonctionnels: scale-up et identification de verrous technologiques	Journée Découverte Fonctionnalisation des matériaux par addition de charges	Verniolle, France	2018	Oral
M. Alexandre, C. Lacabanne, E. Perez, D. Coudeyre, E. Dantras, S. Franceschi and J.-C. Garrigues	Elaboration of thermostable thermoplastic sizing for aeronautic structural TP composites	Journée des thèses	Toulouse, France	2017	Poster
G. Erb and G. Bernhart	Soudage par induction directe de composites thermoplastiques hautes performances	Journées Techniques	Toulouse, France	2017	Poster
M. Alexandre, E. Perez, C. Lacabanne, E. Dantras, S. Franceschi, D. Coudeyre and J.-C. Garrigues	Sonofragmentation : a green process to formulate stable aqueous dispersions of polyetherketoneketone (PEKK) fine particles	ISGC 2017 (International Symposium on Green Chemistry)	La Rochelle, France	2017	Oral

L. Barriere, M. Bouquet and J.-F. Ferrero	Methodology for identification of Impact behavior of materials: application to bird strike	MechComp3 (International Conference on Mechanics of Composites)	Bologna, Italy	2017	Oral
V. Bedel, A. Lonjon and E. Dantras	Étude de la cinétique de polymérisation de revêtements composites polymères conducteurs par analyse calorimétrique diatherme	JCAT48 (48e édition des Journées de Calorimétrie et d'Analyse Thermique)	Rueil-Malmaison, France	2017	Oral
G. Bernhart	Fonctionnalisation et assemblage de matériaux composites thermoplastiques	Les rendez-vous de la mécanique	Toulouse, France	2017	Oral
G. Bernhart, K. Labastié and D. Coudeyre	Elaboration de pré-imprégnés thermoplastiques par voie suspension aqueuse	JST AMAC (Journées Scientifiques et Techniques de l'AMAC)	Toulouse, France	2017	Oral
C. Bessaguet, E. Dantras, G. Michon, M. Chevalier and C. Lacabanne	Passive vibration damping nanocomposite for high performance applications	EPF 2017 (European Polymer Federation Congress)	Lyon, France	2017	Oral
C. Bessaguet, E. Dantras, G. Michon, M. Chevalier and C. Lacabanne	Passive vibration damping of high performance thermoplastic composite filled with piezoelectric particles	Journée des doctorants du CNES	Toulouse, France	2017	Oral
S. A. Chelaghma, O. De Almeida, P. Marguerès, J.-C. Passieux, J.-N. Périé, B. Reine and A. Vinet	Etude de la morphologie cristalline du PEKK et caractérisation de la cinétique de cristallisation des composites à matrice PEKK	JST AMAC (Journées Scientifiques et Techniques de l'AMAC)	Toulouse, France	2017	Oral
S. A. Chelaghma, J.-N. Périé, P. Marguerès, J.-C. Passieux and A. Vinet	Crystallization kinetic modelling of multifunctional thermoplastic composites... First step towards mechanical and electrical optimization	Journées Techniques du Chapter Français du SAMPE	Toulouse, France	2017	Oral
S. A. Chelaghma, J.-N. Périé, P. Marguerès, J.-C. Passieux, A. Vinet and B. Reine	Prévision du comportement multi-physique élémentaire d'un matériau composite à matrice thermoplastique chargée et renforcée de fibres de carbone : Identification des propriétés en lien avec les paramètres de fabrication du matériau et validation des modèles	SAMPE France 2017 Materials & Processes - concours doctorants	Saint Etienne, France	2017	Oral
S. A. Chelaghma, B. Reine, J.-N. Périé, P. Marguerès, J.-C. Passieux, A. Vinet and O. De Almeida	Investigation of crystal morphology of PEKK and modelling of the crystallization kinetic of PEKK composites	JNC 20 (Journées Nationales sur les composites)	Champs-sur-Marne, France	2017	Oral
M. Chevalier	Introduction de fonctionnalités électriques et amortissantes dans les matrices et composites thermoplastiques	CCT CNES	Toulouse, France	2017	Oral
N. Guel, N. Godin, O. Caty, P. Reynaud and C. Dupleix-Couderc	Etude du comportement mécanique de CMC oxyde/oxyde : apport de l'analyse temps-fréquence des signaux acoustiques	JNC 20 (Journées Nationales sur les composites)	Champs-sur-Marne, France	2017	Oral
B. Reine, G. Dusserre and P. Olivier	Simulation du comportement thermique d'un polymère chargé de particules sphériques	JMATNUM 2017 (Journées Matériaux Numériques)	Tours, France	2017	Oral
C. Vicard, O. De Almeida, A. Cantarel and G. Bernhart	Diagrammes TTT de la synthèse du PA6 à partir de l'Epsilon-Caprolactame	JST AMAC (Journées Scientifiques et Techniques de l'AMAC)	Toulouse, France	2017	Oral
A. Wilhelm, L. Barriere, J.-F. Ferrero and S. Rivallant	Experimental study of bird strike response of sandwich structures: overall trends	MechComp3 (International Conference on Mechanics of Composites)	Bologna, Italy	2017	Oral
C. Bessaguet, E. Dantras, C. Lacabanne, G. Michon and M. Chevalier	PAEK / Piezoelectric Particles Nanocomposites for Interactive Structures	IC3 2016 (International Carbon Composites Conference)	Arcachon, France	2016	Oral
M. Broutelle, F. Lachaud, C. Dupleix-Couderc and A. Daidié	Comportement en matage de composites à matrice céramique oxyde/oxyde	SF2M (Société française métallurgie et matériaux)	Albi, France	2016	Oral

S. A. Chelaghma, B. Reine, J.-N. Périé, P. Marguerès, J.-C. Passieux and A. Vinet	Prévision du comportement multiphysique élémentaire d'un matériau composite à matrice thermoplastique chargée et renforcée de fibres de carbone : Identification des propriétés en lien avec les paramètres de fabrication et validation des modèles	Journées des thèses ICA (Institut Clément Ader)	Toulouse, France	2016	Poster
A. Malho-Rodrigues, E. Perez, S. Franceschi, B. Defoort and A. Menochet	Preparation of a Thermoplastic Sizing Based on Aqueous Dispersion	IC3 (5th International Carbon Composites Conference)	Arcachon, France	2016	Oral
L. Barriere	Bird strike shielding materials: Development of a high velocity impact qualification platform	10e édition du Forum Technique des Membres d'Aerospace Valley	Arcachon, France	2015	Poster
C. Bessaguet, E. Dantras, D. Carponcin and G. Michon	Piezoelectric and mechanical properties of a high performance thermoplastic composite	JIP-JEPO 2015	Donostia-San Sebastian, Spain	2015	Oral
D. Carponcin	L'IRT Saint Exupéry et le projet COMPosites INNOVants ThermoPlastiques	CCT - CNES	Toulouse, France	2015	Oral
D. Coudeyre	Les avancées de l'IRT Saint Exupéry	Journées techniques du DAS AMP «les avancées sur les procédés composites»	Bayonne, France	2015	Oral
D. Mocaer	Technological Axis: Process for Ceramic Composite Materials in aeronautics	10e édition du Forum Technique des Membres d'Aerospace Valley	Arcachon, France	2015	Poster

Metallic Materials & Processes

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
A. Casadebaigt, J. Hugues and D. Monceau	Influence of Microstructure and Surface Roughness on Oxidation Kinetics at 500–600 °C of Ti–6Al–4V Alloy Fabricated by Additive Manufacturing	Oxidation of Metals	vol 90, pp 633 - 648	2018	https://doi.org/10.1007/s11085-018-9859-0

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation
N. Bello, C. Larignon, S. Perusin and J. Douin	Long-term thermal ageing effects on Al-Cu alloys	ICAA16 (16e International Conference on Aluminum Alloys)	Montréal, Canada	2018	Oral
R. Kromer, E. Le Guen, C. Arvieu, E. Lacoste, S. Pérusin, A. Jean-Marc and G. Vanard	Discrete element method to study the powder-bed distribution and density in selective laser manufacturing	TMCE 2018 (Twelfth International Symposium on Tools and Methods of Competitive Engineering)	Las Palmas, Gran Canarias - Spain	2018	Oral
B. Tranchant, C. Larignon and S. Perusin	Recherche d'une alternative au TA6V pour des applications aéronautiques - Relation entre microstructures et propriétés de deux alliages de titane $\alpha\beta$	CFM 2017 (23e Congrès Français de Mécanique)	Lille, France	2017	Oral

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
N. Bello, C. Larignon, S. Perusin and J. Douin	Dislocation interaction with an Al-Cu aged alloy	IMC19 (19th International Microscopy Congress)	Sydney, Australia	2018	Poster
N. Bello, B. Warot-Fonrose, C. Marcelot, C. Larignon, S. Perusin and J. Douin	Study of the evolution of two Al-Cu-(Li) alloys during thermal ageing	IMC19 (19th International Microscopy Congress)	Sydney, Australia	2018	Oral
A. Casadebaigt, J. Hugues and D. Monceau	Oxydation à haute température (500-600°C) sous air de l'alliage TA6V élaboré par fabrication additive	Matériaux 2018	Strasbourg, France	2018	Oral
A. Casadebaigt, D. Monceau and J. Hugues	Influence de l'état de surface et de la microstructure sur la cinétique d'oxydation d'échantillons en TA6V élaborés par fabrication additive	JECH (Journée d'Etude sur la Cinétique Hétérogène)	Dijon, France	2018	Oral
T. Gilles, T. Mancier, C. Larignon and S. Perusin	DED Processing Maps Generation and Influence of Key Process Parameters	AMA 2018 (Additive Manufacturing for Aerospace)	Brême, Germany	2018	Oral
B. Max, B. Tranchant, C. Larignon and S. Perusin	Alternative alloys for TA6V replacement: effects of initial microstructure and impact of thermal ageing.	Fatigue 2018 (12th international Fatigue congress)	Poitiers, Toulouse	2018	Oral
V. Renon, G. Henaff, C. Larignon, S. Perusin and P. Villechaise	Identification of relationships between microstructure and fatigue crack growth of $\alpha\beta$ titaniums alloys	Fatigue 2018 (12th international Fatigue congress)	Poitiers, France	2018	Poster
N. Bello, C. Larignon, S. Perusin and J. Douin	Modifications de la microstructure dues au traitement thermique et leurs effets sur le comportement mécanique des alliages d'aluminium	Plasticité 2017	Rennes, France	2017	Oral
N. Bello, C. Larignon, S. Perusin and J. Douin	Microstructure changes due to heat treatment and their effects on the plasticity of aluminium alloys	MRS Fall Meeting & Exhibit 2017 (Materials Research Society Fall Meeting & Exhibit)	Boston, USA	2017	Oral
J. Hugues, C. Larignon, S. Perusin and B. Max	Impact de post-traitements thermiques alternatifs sur la microstructure des pièces en TA6V issues de procédés de fabrication additive lit de poudre	Journées de l'A3TS - Traitements sur pièces métalliques issues de fabrication additive	Colmar, France	2017	Oral
C. Larignon, S. Perusin, B. Tranchant and V. Renon	Rôle de la microstructure dans la résistance à la propagation de fissures d'alliages de titane $\alpha\beta$ utilisés dans l'industrie aéronautique	Journées annuelles SF2M (Société Française de Métallurgie et de Matériaux)	Lyon, France	2017	Oral
V. Renon, G. Henaff, C. Larignon, S. Perusin and P. Villechaise	Identification of relationships between heat treatment and fatigue crack growth of $\alpha\beta$ titaniums alloys	EUROMAT 2017 (European Congress and Exhibition on Advanced Materials and Processes)	Thessaloniki, Greece	2017	Oral
V. Renon, G. Henaff, C. Larignon, S. Perusin and P. Villechaise	Identification of relationships between microstructure and fatigue crack growth of $\alpha\beta$ titaniums alloys	EUROMAT 2017 (European Congress and Exhibition on Advanced Materials and Processes)	Thessaloniki, Greece	2017	Oral
V. Renon, G. Henaff, C. Larignon, S. Perusin and P. Villechaise	Identification des relations microstructure/propriétés de tolérance aux dommages d'alliages de titane de type $\alpha\beta$	MECAMAT 2017	Aussois, France	2017	Poster
N. Bello, J. Douin and C. Larignon	Un alliage d'aluminium résistant en température pour l'allègement de structure ?	Plasticité 2016	Poitiers, France	2016	Poster
B. Max, J. Alexis, J. Hugues, C. Larignon, S. Perusin and E. Andrieu	Analyse des microstructures de l'alliage TA6V obtenues à l'issue de la fabrication additive : impact des procédés	Journées annuelles SF2M (Société Française de Métallurgie et de Matériaux)	Albi, France	2016	Oral

Innovative Assemblies & Surfaces

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
S. Leleu, B. Rives, J. Bour, N. Causse and N. Pébère	On the stability of the oxides film formed on a magnesium alloy containing rare-earth elements	Electrochimica Acta	vol 290, pp 586 - 594	2018	https://doi.org/10.1016/j.electacta.2018.08.093
D. Dupenne, A. Roggero, E. Dantras, A. Lonjon, T. Pierré and C. Lacabanne	Dynamic molecular mobility of polyurethane by a broad range dielectric and mechanical analysis	Journal of Non-Crystalline Solids	vol 468, pp 46 - 51	2017	http://dx.doi.org/10.1016/j.jnoncrsol.2017.04.022
P. Roumanille, V. Baco-Carles, C. Bonningue, M. Gougeon, B. Duployez, P. Monfraix, H. Le Trong and P. Tailhades	Bi ₂ (C ₂ O ₄) ₃ .7H ₂ O and Bi(C ₂ O ₄)OH Oxalates Thermal Decomposition Revisited. Formation of Nanoparticles with a Lower Melting Point than Bulk Bismuth in Oxygen-Poor Atmospheres	Inorganic Chemistry	vol 56, pp 9486 - 9496	2017	https://doi.org/10.1021/acs.inorgchem.7b00608

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
P. Roumanille, V. Baco, C. Bonningue, M. Gougeon, P. Tailhades and P. Monfraix	Developing new joining materials for low-temperature electronics assembly	IEEE - NMDC 2016 (Nanotechnology Materials and Devices Conference)	Toulouse, France	2016	Poster	https://doi.org/10.1109/NMDC.2016.777169
P. Roumanille, V. Baco, C. Bonningue, M. Gougeon, P. Tailhades and P. Monfraix	Matériaux innovants sans plomb pour l'assemblage de composants électroniques à basse température	JNRDM 2016 (Journées Nationales du Réseau Doctoral en Micro-nanoélectronique)	Toulouse, France	2016	Oral	

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
E. Chauray, N. Cuvillier, P. Lespade, B. Martin and A. Mercier	Laser surface preparation for adhesive bonding	JNPLI 2018 (Journées Nationales des Procédés Laser pour l'Industrie)	Bordeaux, France	2018	Oral
E. Chauray, N. Cuvillier, P. Lespade, B. Martin and A. Mercier	Process parameters/performances relationship for "dry" surface preparation	EURADH - CLBA 2018 (12th European Adhesion Conference - 4th Luso-Brazilian Conference on Adhesion and Adhesives)	Lisbon, Portugal	2018	Oral
J. Escobar, J.-P. Lavoute and P. Combes	New development of multifunctional coating for rain erosion, corrosion resistance and aesthetical aerospace requirements of aluminum large parts by plasma electrolytic oxidation	A3TS 2018 (45e Congrès du Traitement Thermique et des Traitements de Surfaces)	Bordeaux, France	2018	Oral
J. Escobar, L. Vivian and E. Renard	Elaboration and characterizations of thermo-optical coatings for space applications	ISMSE 2018 (14th International Symposium on Materials in the Space Environment)	Biarritz, France	2018	Poster
A. Jacoboni, H. Cerda and C. Gagnepain	Amélioration des propriétés anticorrosion de revêtements élaborés par Oxydation Micro-Arcs (OMA) sur alliage de magnésium Elektron21 par l'utilisation d'un post-traitement	Matériaux 2018	Strasbourg, France	2018	Poster
M. Laveissière, H. Cerda, J. Roche and L. Arurault	Plasma electrolytic oxidation of TA6V: influence of process parameters for the improvement of its mechanical superficial properties	SURFAIR 2018 (22nd international congress on surface treatments in the aeronautics & aerospace industries)	Biarritz, France	2018	Oral
M. Laveissière, H. Cerda, J. Roche and L. Arurault	Amélioration des propriétés tribologiques d'un alliage de titane par l'utilisation du procédé d'Oxydation Micro-Arcs	A3TS 2018 (45e Congrès du Traitement Thermique et des Traitements de Surfaces)	Bordeaux, France	2018	Oral

A. Sanchot, T. Delsol, V. Murat, N. Naude, B. Rives and L. Guerre-Chaley	Cold Atmospheric Pressure Plasma applied for Aeronautical Polyurethane surface activation: preliminaries characterizations	HTTP 2018 - (15th High-Technology Plasma Processes Conference)	Toulouse, France	2018	Poster
L. Brès, N. Gherardi, N. Naudé and B. Rives	Remote atmospheric pressure plasma for improving acid-base surface properties of PEEK polymer: relevance to coating adhesion	ISPC23 (23rd International Symposium on Plasma Chemistry)	Montréal, Canada	2017	Poster
L. Brès, N. Gherardi, N. Naudé and B. Rives	New Developments in Efficient Industrial Atmospheric Plasma Activation: The plasma Dose Approach for Coatings Adhesion	Intercoat 2017	Dublin, Ireland	2017	Oral
J. Escobar, T. Delsol, B. Rives, J.-P. Lavoute, P. Combes, P. Héberlé, F. Pons and P. A.	New developments of multifunctional coating for rain erosion, corrosion resistance and aesthetical aerospace requirements of aluminum large parts by plasma electrolytic oxidation	Anodize it ! 2017	Toulouse, France	2017	Poster
E. Chauray, N. Cuvillier, A. Mercier, B. Martin and P. Lespade	Process Parameters/Performances Relationship for "dry" Surface Preparation	AB 2017 (4th International Conference on Structural Adhesive Bonding)	Porto, Portugal	2017	Oral
E. Chauray, N. Cuvillier, A. Mercier, B. Martin and P. Lespade	Laser Surface Preparation for Adhesive Bonding	JNPLI 2017 (Journées Nationales des Procédés Laser pour l'Industrie)	Strasbourg, France	2017	Oral
E. Chauray, N. Cuvillier, A. Mercier, B. Martin and P. Lespade	Etude de préparations de surface voie sèche : relation entre les paramètres procédé et les performances en collage	JADH 2017 (19es Journées d'Etude sur l'Adhésion)	Sainte-Maxime, France	2017	Oral
M. Laveissière, H. Cerda, J. Roche and L. Arurault	Plasma Electrolytic Oxidation of TA6V for the Improvement of its surface	YUCOMAT	Herceg Novi, Montenegro	2017	Oral
J. Lecomte, C. Dupleix-Couderc, C. Marcuzzo, C. Bois and A. Daidié	A Robust Numerical Model for the Pre-design of Composite reinforcement by Expanded Bonded Bushing (EB ²)	MECHCOMP3 (3rd International Conference of Mechanics of Composites)	Bologna, Italy	2017	Oral
S. Leleu, N. Causse, N. Pébère and B. Rives	Investigation of the corrosion behaviour of a rare-earth magnesium alloy for short immersion times in a sodium sulphate solution	ECASIA	Montpellier, France	2017	Oral
S. Leleu, N. Pébère and B. Rives	Corrosion mechanisms of magnesium alloys: contribution of electrochemical impedance spectroscopy	EIA11 (11th International Symposium on Electrochemical Impedance Analysis)	Camogli, Italy	2017	Oral
S. Leleu, N. Pébère and B. Rives	Corrosion behavior of Mg alloys in Na ₂ SO ₄ solution: determination of the corrosion rate by EIS and ICP-AES	ISE 2017 (68th annual meeting of the International Society of Electrochemistry)	Providence, USA	2017	Oral
P. Roumanille, V. Baco-Carles, C. Bonningue, M. Gougeon, B. Duployer, P. Monfraix, H. Le Trong and P. Tailhades	Study of the Bismuth Oxalates Thermal Decomposition and the Low Melting Behavior of Resulting Bismuth Nanoparticles	Nanomaterials 2017 (International Functional Nanomaterials and Nanodevice Conference)	Budapest, Hungary	2017	Oral
L. Brès, N. Gherardi, N. Naude and B. Rives	Etude d'un plasma froid à la pression atmosphérique pour l'activation de surface des composites à matrice PEEK et PEKK	Expert' Labs	Fuveau, France	2016	Oral
L. Brès, N. Naude, N. Gherardi and B. Rives	Cold Atmospheric Pressure Plasma treatment of PEEK and PEKK based composite for aeronautical purposes	PSE 2016 (15th International Conference on Plasma Surface Engineering)	Garmisch-Partenkirchen, Germany	2016	Poster
D. Dupenne, T. Pierré, A. Lonjon and E. Dantras	Metallization of CFRP surface via a conductive underlayer	ECNP (Xth European Conference on Nanostructured Polymers and Nanocomposites)	Roma, Italy	2016	Poster
D. Dupenne, T. Pierré, A. Lonjon and E. Dantras	Développement d'un revêtement polymère conducteur pour substrat thermodur/thermoplastique chargé fibres de carbone	CCT - CNES	Toulouse, France	2016	Oral

M. Laveissière, H. Cerda and L. Arurault	Elaboration de revêtements par oxydation micro-arcs sur alliage de titane TA6V	JTE (Journée Toulousaine d'Electrochimie)	Toulouse, France	2016	Poster
S. Leleu, N. Pébère and B. Rives	Investigation of the corrosion behaviour of magnesium alloys by electrochemical impedance spectroscopy (EIS)	ISE (67th Annual Meeting of the International Society of Electrochemistry)	The Hague, Netherlands	2016	Poster
S. Leleu, N. Pébère and B. Rives	Caractérisation de la résistance à la corrosion d'alliages de magnésium par spectroscopie d'impédance électrochimique	JTE (Journée Toulousaine d'Electrochimie)	Toulouse, France	2016	Poster
S. Leleu, N. Pébère and B. Rives	Evaluation of corrosion performance of surface treatments on aeronautical magnesium alloys by the impedance technique	EUROCORR 2016	Montpellier, France	2016	Oral
P. Lespade	Innovative Assembly Technologies for Composites	IC3 (5th International Carbon Composites Conference)	Arcachon, France	2016	Oral
L. Brès and B. Rives	Cold atmospheric pressure plasma activation for CFRP before paint application	Airbus Structure Days	Madrid, Spain	2015	Oral
D. Dupenne, T. Pierré, A. Lonjon and E. Dantras	Electrical conductivity improvement of epoxy matrix composite surface by conductive coating	JIP-JEPO 2015	Donostia-San Sebastian, Spain	2015	Oral
D. Dupenne, T. Pierré, B. Rives, A. Lonjon and E. Dantras	Polymer composite surface metallization for space applications	10e édition du Forum Technique des Membres d'Aerospace Valley	Arcachon, France	2015	Poster
C. Gras and H. Cerda	Plasma Electrolytic Oxidation on Al, Mg and Ti alloys (WP1 SURFINNOV Project)	Airbus Structure Days	Madrid, Spain	2015	Oral
S. Leleu, B. Rives and N. Pébère	Contribution to the understanding of the corrosion inhibition mechanisms on magnesium alloys	Airbus Structure Days	Madrid, Spain	2015	Oral
P. Lespade	Technological axis: Innovative Assemblies	10e édition du Forum Technique des Membres d'Aerospace Valley	Arcachon, France	2015	Poster
P. Lespade and E. Chauray	IRT Saint Exupéry - Projet Assemblages Innovants	JADH 2015 (18es Journées d'étude sur l'ADHésion)	Najac, France	2015	Poster

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Dielectrics, Conductors & Plasmas

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
C. Abadie, T. Billard and T. Lebey	Partial discharges in motor fed by inverter: from detection to winding configuration	IEEE - Transactions on Industry Applications		2018	https://doi.org/10.1109/TIA.2018.2874875
B. Taghia, B. Cougo, H. Piquet, D. Malec, A. Belinger and J.-P. Carayon	Overvoltage at motor terminals in Sic-based PWM drives	Mathematics and Computers in Simulation		2018	https://doi.org/10.1016/j.matcom.2018.09.009
L. Hermette, P. Teulet and Y. Cressault	Étude expérimentale de la phase d'extinction d'un arc électrique entre barres de distribution en condition aéronautique	JITIPEE (Journal International de Technologie, de l'Innovation, de la Physique, de l'Energie et de l'Environnement)	vol 3, pp 3-2 - 3-6	2017	https://doi.org/10.18145/jitipee.v3i1.142
A. Risacher, G. Belijar and L. Hermette	Analyse statistique des événements consécutifs à un arc électrique amorcé par la présence d'un objet conducteur	JITIPEE (Journal International de Technologie, de l'Innovation, de la Physique, de l'Energie et de l'Environnement)	vol 3, pp 2-1 - 2-7	2017	https://doi.org/10.18145/jitipee.v3i1.151

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
R. Acheen, C. Abadie, T. Lebey, T. Billard and S. Duchesne	Comparison of the Electrical ageing under Sinusoidal and Square-wave Stresses	IEEE - EIC 2018 (Electrical Insulation Conference)	San Antonio, USA	2018	Oral	https://doi.org/10.1109/EIC.2018.8481024
R. Acheen, T. Lebey, C. Abadie and S. Duchesne	Etude des contraintes électriques et des décharges partielles dans un moteur de type II alimenté par des convertisseurs IGBT et SiC MOSFET	SGE 2018 (3e Symposium de Génie Electrique)	Nancy, France	2018	Oral	
G. Belijar, L. Hermette, M. Kozako and M. Hikita	Impedance network modeling of non-linear resistive material	IEEE - ICD 2018 (2nd International Conference on Dielectrics)	Budapest, Hungary	2018	Oral	https://doi.org/10.1109/ICD.2018.8514607
B. Taghia, T. Billard, J.-P. Carayon, D. Malec, H. Piquet and A. Belinger	Investigations on Partial Discharges risk in aeronautical rotating machine fed by HVDC 540Vdc network	IEEE - EIC 2018 (36th Electrical Insulation Conference)	San Antonio, USA	2018	Oral	http://dx.doi.org/10.1109/EIC.2018.8481115
T. Billard, C. Abadie and T. Lebey	Recent advances in on-line PDs' detection in power conversion chains used in aeronautics	IEEE - WEMDCD 2017 (Workshops on Electrical Machines Design, Control and Diagnosis)	Nottingham, UK	2017	Oral	https://doi.org/10.1109/WEMDCD.2017.7947760
T. Billard, C. Abadie and B. Taghia	Advanced partial discharge testing of 540V aeronautic motor fed by SiC inverter under altitude conditions	SAE 2017 - AeroTech Congress & Exhibition	Fort Worth, USA	2017	Oral	https://doi.org/10.4271/2017-01-2029
C. Abadie, T. Billard and T. Lebey	Influence of pressure on partial discharge spectra	IEEE - EIC 2016 (Electrical Insulation Conference)	Montreal, Canada	2016	Oral	
C. Abadie, T. Billard and T. Lebey	Numerical signal processing methods for partial discharge detection in more electrical aircraft	IEEE - ICD 2016 (1st International Conference on Dielectrics)	Montpellier, France	2016	Oral	https://doi.org/10.1109/ICD.2016.7547661
T. Billard, C. Abadie and T. Lebey	Partial discharge testing in aeronautic environment on magnet wire and feeder cables	IEEE - EIC 2016 (Electrical Insulation Conference)	Montreal, Canada	2016	Poster	https://doi.org/10.1109/EIC.2016.7548577

T. Billard, C. Abadie and B. Taghia	Non-intrusive partial discharges investigations on aeronautic motors	SAE 2016 - ASTC (Aerospace Systems and Technology Conference)	Hartford, USA	2016	Oral	https://doi.org/10.4271/2016-01-2058
B. Cella, T. Lebey and C. Abadie	Partial discharges measurements at the constituents' level of aerospace power electronics converters	IEEE - EIC 2015 (Electrical Insulation Conference)	Seattle (WA, USA)	2015	Poster	https://doi.org/10.1109/ICACACT.2014.7223587
T. Lebey, B. Cella, T. Billard and C. Abadie	Partial Discharges in Aeronautics: The last frontier?	IEEE - ICPADM 2015 (11th International Conference on the Properties and Applications of Dielectric Materials)	Sydney, Australia	2015	Oral	https://doi.org/10.1109/ICPADM.2015.7295260

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
G. Belijar	High temperature nanocomposite and anisotropic microcomposites	Surface Functions Brought by Surface Nano/microstructures - Japan-Asia Youth Exchange Program in Science - Sakura Exchange Program in Science	Kitakyushu, Japan	2018	Oral and Poster
G. Belijar, A. Risacher, L. Hermette, M. Kozako and M. Hikita	Study of electric arc behavior in aircraft conditions, initiated by Foreign Object Debris	2018 Annual meeting of the Institute of Electrical Engineers of Japan	Fukuoka, Japan	2018	Oral
B. Taghia, H. Piquet, D. Malec, J.-P. Carayon and A. Belinger	Fast frequency model of overvoltage in adjustable speed drives; SiC technology vs. IGBT technology	EPCN 2018 (25th Symposium on Electromagnetic Phenomena in Nonlinear Circuits)	Arras, France	2018	Oral
T. Vazquez, P. Teulet, F. Valensi and A. Risacher	Arc tracking energy balance in AC and DC	ESOF 2018 (EuroScience Open Forum)	Toulouse, France	2018	Poster
T. Vazquez, P. Teulet, F. Valensi, A. Risacher, L. Hermette and V. Casanovas	Determination of faults arc energy ignited between aeronautic cables	HTPP 2018 (15th International High-Tech Plasma Processes Conference)	Toulouse, France	2018	Poster
L. Hermette, P. Teulet and Y. Cressault	Étude expérimentale de la phase d'extinction d'un arc électrique entre barres de distribution en condition aéronautique	CAE XIII - ACE 2017 (XIIIe Colloque sur les Arcs Electriques et du workshop sur les Arcs et Contacts Electriques)	Nancy, France	2017	Oral
A. Risacher, G. Belijar and L. Hermette	Analyse statistique des événements conséquents à la présence d'un objet conducteur entre deux électrodes	CAE XIII - ACE 2017 (XIIIe Colloque sur les Arcs Electriques et du workshop sur les Arcs et Contacts Electriques)	Nancy, France	2017	Poster
B. Taghia, B. Cougo, H. Piquet, A. Belinger, D. Malec, J.-P. Carayon and T. Billard	Advanced Analysis of Transient Overvoltage in Electromechanical Chain Fed by SiC Inverter	Electrimacs 2017	Toulouse, France	2017	Oral

Components Modeling & Reliability

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
J. D. Aguirre Morales, F. Marc, A. Bensoussan and A. Durier	Simulation and modelling of long term reliability of digital circuits implemented in FPGA	Microelectronics Reliability	vol 88 - 90, pp 1130 - 113	2018	https://doi.org/10.1016/j.microrel.2018.07.151
O. Chihani, L. Théolier, A. Bensoussan, J.-Y. Deletage, A. Durier and E. Woïrgard	Effect of HTRB lifetest on AlGaN/GaN HEMTs under different voltages and temperatures stresses	Microelectronics Reliability	vol 88 - 90, pp 402 - 405	2018	https://doi.org/10.1016/j.microrel.2018.07.076
S. El Aabid, J. Regnier, C. Turpin, O. Rallieres, E. Soyez, N. Chadourne, J. d'Arbigny, T. Hordé and E. Foch	A global approach for a consistent identification of static and dynamic phenomena in a PEM Fuel Cell	Mathematics and Computers in Simulation		2018	https://doi.org/10.1016/j.matcom.2018.10.008
C. Gaya, Y. Yin, A. Torayev, Y. Mammeri and A. A. Franco	Investigation of bi-porous electrodes for lithium oxygen batteries	Electrochimica Acta	vol 279, pp 118 - 127	2018	https://doi.org/10.1016/j.electacta.2018.05.056
C. Ghfiri, A. Boyer, A. Bensoussan, A. Durier and S. Ben Dhia	A new methodology for EMC prediction of integrated circuits after aging	IEEE - Transactions on Electromagnetic Compatibility	pp 1 - 10	2018	https://doi.org/10.1109/TEM.2018.2819722
C. Ghfiri, A. Boyer, A. Durier and S. Ben Dhia	A new methodology to build the Internal Activity Block of ICEM-CE for complex Integrated Circuits	IEEE - Transactions on Electromagnetic Compatibility	vol 60, pp 1500 - 1509	2018	https://doi.org/10.1109/TEM.2017.2767084
A. Pessot, C. Turpin, A. Jaafar, E. Soyez, O. Rallières, G. Gager and J. D'Arbigny	Contribution to the modelling of a low temperature PEM fuel cell in aeronautical conditions by design of experiments	Mathematics and Computers in Simulation		2018	https://doi.org/10.1016/j.matcom.2018.07.008
S. Pin, A. Guédon-Garcia, J.-Y. Deletage and H. Frémont	Creep measurement and choice of creep laws for BGA assemblies' reliability simulation	Microelectronics Reliability	vol 88 - 90, pp 1172 - 117	2018	https://doi.org/10.1016/j.microrel.2018.07.029
M. Zerarka and O. Crepel	Radiation robustness of normally-off GaN/HEMT power transistors (COTS)	Microelectronics Reliability	vol 88 - 90, pp 984 - 991	2018	https://doi.org/10.1016/j.microrel.2018.07.148
Y. C. Zhang, O. Briat, J.-Y. Delétage, C. Martin, N. Chadourne and J.-M. Vinassa	Efficient state of health estimation of Li-ion battery under several ageing types for aeronautic applications	Microelectronics Reliability	vol 88 - 90, pp 1231-1235	2018	https://doi.org/10.1016/j.microrel.2018.07.038
A. Bensoussan	Microelectronic reliability models for more than moore nanotechnology products	Facta Universitatis - series: Electronics and Energetics	vol 30, pp 1 - 25	2017	https://doi.org/10.2298/FUEE1701001B
S. Hairoud-Airieau, G. Duchamp, T. Dubois, J.-Y. Deletage, A. Durier and H. Fremont	Effects of ageing on the conducted immunity of a voltage reference: Experimental study and modelling approach	Microelectronics Reliability	vol 76-77, pp 674 - 679	2017	https://doi.org/10.1016/j.microrel.2017.07.030
S. Pin, H. Frémont and A. Guédon-Garcia	Combined creep characterisation from single lap shear tests and 3D implementation for fatigue simulations	Microelectronics Reliability	vol 76-77, pp 368 - 372	2017	https://doi.org/10.1016/j.microrel.2017.07.053
T. Rousselin, G. Hubert, D. Régis, M. C. Gatti and A. Bensoussan	Impact of aging on the soft error rate of 6T SRAM for planar and bulk technologies	Microelectronics Reliability	vol 76-77, pp 159 - 163	2017	https://doi.org/10.1016/j.microrel.2017.07.078
Y. Yin, A. Torayev, C. Gaya, Y. Mammeri and A. A. Franco	Linking the Performances of Li-O2 Batteries to Discharge Rate and Electrode and Electrolyte Properties through the Nucleation Mechanism of Li2O2	Journal of Physical Chemistry C	vol 121, pp 19577 - 19585	2017	https://pubs.acs.org/doi/10.1021/acs.jpcc.7b05224
M. Zerarka, P. Austin, A. Bensoussan, F. Morancho and A. Durier	TCAD simulation of the Single Event Effects in normally-off GaN transistors after heavy ion radiation	IEEE - Transactions on Nuclear Science	vol 64, pp 2242 - 2249	2017	https://doi.org/10.1109/TNS.2017.2710629
A. Bensoussan	How to quantify and predict long term multiple stress operation: Application to Normally-Off Power GaN transistor technologies	Microelectronics Reliability	vol 58, pp 103 - 112	2016	http://dx.doi.org/10.1016/j.microrel.2015.12.020
J. B. Bernstein, A. Bensoussan and E. Bender	Reliability Prediction with MTOL	Microelectronics Reliability	vol 68, pp 91 - 97	2016	http://dx.doi.org/10.1016/j.microrel.2016.09.005

Y. Yin, C. Gaya, A. Torayev, V. Thangavel and A. A. Franco	Impact of Li2O2 Particle Size on Li-O2 Battery Charge Process: Insights from a Multiscale Modeling Perspective	The journal of physical chemistry letters	vol 7, pp 3897 - 3902	2016	https://pubs.acs.org/doi/10.1021/acs.jpcllett.6b01823
A. Bensoussan, E. Suhir, P. Henderson and M. Zahir	A unified multiple stress reliability model for microelectronic devices — Application to 1.55 μm DFB laser diode module for space validation	Microelectronics Reliability	vol 55, pp 1729 - 1735	2015	https://doi.org/10.1016/j.microrel.2015.06.093
A. Durier, A. Bensoussan, M. Zerarka, C. Ghfiri, A. Boyer and H. Frémont	A methodologic project to characterize and model COTS component reliability	Microelectronics Reliability	vol 55, pp 2097 - 2102	2015	https://doi.org/10.1016/j.microrel.2015.06.140

Proceedings' edition

Authors	Title	Conference	Location	Year
A. Bensoussan and K. Makasheva	Book of proceedings	Nanoelectronic technologies & devices - From basic principle to highly reliable applications (IEEE Summer school)	Toulouse, France	2017

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
O. Chihani, L. Theolier, A. Bensoussan, P. Bondue, A. Durier and E. Woigard	L'effet de la température et de la tension sur des vieillissements HTRB et HTGB pour des HEMTs GaN de puissance	SGE 2018 (3e Symposium de Génie Electrique)	Nancy, France	2018	Oral	
O. Chihani, L. Theolier, A. Bensoussan, J.-Y. Deletage, A. Durier and E. Woigard	Temperature and voltage effects on HTRB and HTGB stresses for AlGaIn/GaN HEMTs	IEEE - IRPS 2018 (International Reliability Physics Symposium)	San Francisco, USA	2018	Poster	https://doi.org/10.1109/IRPS.2018.8353685
A. Durier, P. Fernandez-Lopez, J.-L. Levant and C. Marot	ICIM-CPI : Integrated circuits immunity model: conducted pulse immunity	IEEE - EMC/APEMC 2018 (International Symposium on Electromagnetic Compatibility and Asia-Pacific Symposium on Electromagnetic Compatibility)	Singapore, Republic of Singapore	2018	Oral	https://doi.org/10.1109/IEMC.2018.8393871
C. Ghfiri, A. Durier, C. Marot, A. Boyer and S. Ben Dhia	Modeling the internal activity of a FPGA for conducted emission prediction purpose	IEEE - EMC/APEMC 2018 (International Symposium on Electromagnetic Compatibility and Asia-Pacific Symposium on Electromagnetic Compatibility)	Singapore, Republic of Singapore	2018	Oral	https://doi.org/10.1109/IEMC.2018.8393788
Gonzalez Sentis, Manuel Antero, Tounsi, Patrick, Bensoussan, Alain and Dufour, Arnaud	Drift effects and trap analysis of power-GaN-HEMT under switching power cycling	SETIT'2018 (8th International Conference on Sciences of Electronics, Technologies of Information and Telecommunications)	Hammamet, Tunisia	2018	Oral	https://doi.org/10.1007/978-3-030-21009-0_17
S. Pin, A. Guédon-Garcia, H. Frémont, J.-Y. Deletage and J. Fouquet	Robustness of BGAs: parametric study of voids' distribution in SAC solder joints	IEEE - EuroSimE 2018 (19th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems)	Toulouse, France	2018	Oral	https://doi.org/10.1109/EuroSimE.2018.8369939
Y. C. Zhang, O. Briat, J.-Y. Deletage, C. Martin, G. Gager and J.-M. Vinassa	Characterization of external pressure effects on lithium-ion pouch cell	IEEE - ICIT 2018 (International Conference on Industrial Technology)	Lyon, France	2018	Oral	https://doi.org/10.1109/ICIT.2018.8352505

A. Bensoussan, J. B. Bernstein and A. Durier	M-STORM: Multi-Physics Multi-Stressors Predictive Reliability Model applied to DSM technologies	APE 2017 Automotive Power Electronics	Paris, France	2017	Oral	
A. Boyer, M. A. Gonzalez Sentis, C. Ghfiri and A. Durier	Study of the thermal aging effect on the conducted emission of a synchronous buck converter	IEEE - EMC Compo 2017 (11th International Workshop on the Electromagnetic Compatibility of Integrated Circuits)	Saint Petersburg, Russia	2017	Oral	https://doi.org/10.1109/EMCCompo.2017.7998086
A. Boyer, M. A. Gonzalez Sentis, C. Ghfiri and A. Durier	Modeling methodology of the conducted emission of a DC-DC converter board	IEEE - EMC Compo 2017 (11th International Workshop on the Electromagnetic Compatibility of Integrated Circuits)	Saint Petersburg, Russia	2017	Oral	https://doi.org/10.1109/EMCCompo.2017.7998085
A. Boyer, M. A. Gonzalez Sentis, C. Ghfiri and A. Durier	Study of the thermal aging effect on the conducted emission of a synchronous buck converter	IEEE - EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral	https://doi.org/10.1109/EMCEurope.2017.8094773
S. El Aabid, J. Regnier, O. Rallieres, C. Turpin, G. Gager, J. d'Arbigny, T. Hordé and L. Prisse	Time constant based method for PEM fuel cell diagnosis	ELECTRIMACS 2017 (12th International Conference on Modeling and Simulation of Electric Machines, Converters and Systems)	Toulouse, France	2017	Oral	
C. Ghfiri, A. Durier, A. Boyer and S. Ben Dhia	Methodology of modelling of the internal activity of a FPGA for conducted emission prediction purpose	IEEE - EMC Compo 2017 (11th International Workshop on the Electromagnetic Compatibility of Integrated Circuits)	Saint Petersburg, Russia	2017	Oral	https://doi.org/10.1109/EMCCompo.2017.7998075
C. Ghfiri, A. Durier, A. Boyer and S. Ben Dhia	A new methodology to extract the ICEM-CE internal activity block of a FPGA	IEEE - EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral	https://doi.org/10.1109/EMCEurope.2017.8094792
S. Hairoud Airieau, T. Dubois, G. Duchamp and A. Durier	An Analog-to-Digital Converter Immunity Modelling based on a Stochastic Approach	IEEE - EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral	https://doi.org/10.1109/EMCEurope.2017.8094670
K. Mrozewski, A. Picot, O. Rallières, G. Gager, J. d'Arbigny, T. Hordé and L. Prisse	Determination of mechanical tightening of single LT-PEM and HT-PEM cells via electrical measurements	ELECTRIMACS 2017 (12th International Conference on Modeling and Simulation of Electric Machines, Converters and Systems)	Toulouse, France	2017	Oral	
A. Pessot, A. Jaafar, G. Gager and J. d'Arbigny	Contribution to the modelling of a low temperature PEM fuel cell in aeronautical conditions by design of experiments	ELECTRIMACS 2017 (12th International Conference on Modeling and Simulation of Electric Machines, Converters and Systems)	Toulouse, France	2017	Oral	
S. Pin, H. Frémont and A. Gracia	Lead free solder joints characterisation using Single Lap Shear tests	IEEE - EuroSimE 2017 (18th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems)	Dresden, Germany	2017	Oral	https://doi.org/10.1109/EuroSimE.2017.7926234
S. Rigal, C. Turpin, A. Jaafar, O. Rallières, G. Gager, T. Hordé, F. Boudjema and J.-B. Jollys	Characterization and modelling of a commercially available high temperature PBI-H3PO4 based membrane electrode assembly in various operating conditions	ELECTRIMACS 2017 (12th International Conference on Modeling and Simulation of Electric Machines, Converters and Systems)	Toulouse, France	2017	Oral	

S. Serpaud, C. Ghfiri, A. Boyer and A. Durier	Proposal for combined conducted and radiated emission modeling for Integrated Circuit	IEEE - EMC Compo 2017 (11th International Workshop on the Electromagnetic Compatibility of Integrated Circuits)	Saint Petersburg, Russia	2017	Oral	https://doi.org/10.1109/EMCCompo.2017.7998105
Y. C. Zhang, O. Briat, J.-Y. Deletage, C. Martin, G. Gager and J.-M. Vinassa	Performance quantification of latest generation Li-ion batteries in wide temperature range	IEEE - IECON 2017 (43rd Annual Conference of the IEEE Industrial Electronics Society)	Beijing, China	2017	Oral	https://doi.org/10.1109/IECON.2017.8217343
A. Bensoussan	M-STORM Reliability model applied to DSM Technologies	IEEE - NMDC 2016 (Nanotechnology Materials and Devices Conference)	Toulouse, France	2016	Oral	https://doi.org/10.1109/NMDC.2016.7777115
A. Durier, A. Boyer and G. Duchamp	A methodologic project to characterize and model COTS components EMC behavior after ageing	IEEE - APEMC 2016 (7th Asia Pacific International Symposium on Electromagnetic Compatibility & Signal Integrity)	Shenzhen, China	2016	Oral	https://doi.org/10.1109/APEMC.2016.7522742
C. Ghfiri, A. Boyer, A. Durier, S. Ben Dhia and C. Marot	Construction d'un modèle ICEM pour prédire l'émission électromagnétique d'un FPGA	CEM 2016 (18e Colloque International et Exposition sur la Compatibilité ElectroMagnétique)	Rennes, France	2016	Oral	
C. Ghfiri, A. Durier, A. Boyer, S. Ben Dhia and C. Marot	Construction of an Integrated Circuit Emission Model of a FPGA	IEEE - APEMC 2016 (7th Asia Pacific International Symposium on Electromagnetic Compatibility & Signal Integrity)	Shenzhen, China	2016	Oral	https://doi.org/10.1109/APEMC.2016.7522751
S. Hairoud Airieau, T. Dubois, G. Duchamp and A. Durier	Modèle ICIM-CI multiports d'une référence de tension	CEM 2016 (18e Colloque International et Exposition sur la Compatibilité ElectroMagnétique)	Rennes, France	2016	Oral	
S. Hairoud Airieau, T. Dubois, G. Duchamp and A. Durier	Multiport ICIM-CI modeling approach applied to a bandgap voltage reference	IEEE - EMC Europe 2016 (International Symposium on Electromagnetic Compatibility)	Wroclaw, Poland	2016	Oral	https://doi.org/10.1109/EMCEurope.2016.7739248
S. Pin, H. Frémont and A. Gracia	Numerical study of thermomechanical fatigue influence of intermetallic compounds in a lead free solder joint	IEEE - ESTC 2016 (6th Electronics System-Integration Technology Conference)	Grenoble, France	2016	Oral	https://doi.org/10.1109/ESTC.2016.7764674
E. Suhir, A. Bensoussan and J. Nicolics	Predicted Device-Degradation Failure-Rate	SAE 2015 - AeroTech Congress & Exhibition	Seattle, USA	2015	Oral	https://doi.org/10.4271/2015-01-2555
E. Suhir, A. Bensoussan and J. Nicolics	Bow-Free Tri-Component Mechanically Pre-Stressed Failure-Oriented-Accelerated-Test (FOAT) Specimen	SAE 2015 - AeroTech Congress & Exhibition	Seattle, USA	2015	Oral	http://dx.doi.org/10.4271/2015-01-2551

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
J. D. Aguirre Morales, F. Marc, A. Bensoussan and A. Durier	Simulation and modelling of long term reliability of digital circuits implemented in FPGA	ESREF 2018 (29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Aalborg, Denmark	2018	Oral
O. Chihani, L. Théolier, A. Bensoussan, J.-Y. Deletage, A. Durier and E. Woigard	Effect of HTRB lifetest on AlGaIn/GaN HEMTs under different voltages and temperatures stress	ESREF 2018 (29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Aalborg, Denmark	2018	Poster
C. Gaya, Y. Yin, A. Torayev, D. Larcher, C. Surcin, M. Courty, B. Fleutot, M. Morcrette and A. A. Franco	Investigation of bi-porous electrodes for Li-O2 batteries: from modeling to experimental electrodes development	E-MRS Fall meeting and Exhibit 2018 (European Material Research Society)	Warsaw, Poland	2018	Oral

S. Pin, A. Guédon-Garcia, J.-Y. Deletage and H. Frémont	Creep measurement and choice of creep laws for BGA assemblies' reliability simulation	ESREF 2018 (29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Aalborg, Denmark	2018	Poster
Y. C. Zhang, O. Briat, J.-Y. Deletage, C. Martin, N. Chadourne and J.-M. Vinassa	Efficient state of health estimation of Li-ion battery under several ageing types for aeronautic applications	ESREF 2018 (29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Aalborg, Denmark	2018	Oral
M. Zerarka and O. Crepel	Radiation robustness of normally-off GaN/HEMT power transistors (COTS)	ESREF 2018 (29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Aalborg, Denmark	2018	Poster
J. B. Bernstein, M. Azoulay, T. Avraham, I. Kremenetsky, A. Bensoussan and M. Gatti	An improved reliability test for Si and GaN power FET	SAE 2017 - AeroTech Congress & Exhibition	Fort Worth, USA	2017	Oral
A. Boyer, C. Ghfiri and A. Durier	ICEM Generator – A tool for the construction of IC emission models	EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral
C. Gaya, A. Torayev, Y. Yin, C. Surcin, D. Larcher, B. Fleutot, M. Morcrette and A. A. Franco	Impacts of the Electrode Fabrication Process on the Performances of Lithium-Oxygen Batteries	ISE 2017 (68th Annual Meeting of the International Society of Electrochemistry)	Providence, USA	2017	Oral
S. Hairoud-Airieau, G. Duchamp, T. Dubois, J.-Y. Deletage, A. Durier and H. Fremont	Effects of ageing on the conducted immunity of a voltage reference: Experimental study and modelling approach	ESREF 2017 (28th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Bordeaux, France	2017	Oral
K. Mrozewski, D. Picot, C. Turpin, O. Rallieres, G. Gager, J. d'Arbigny, T. Hordé and L. Prisse	Détermination de la qualité du serrage mécanique de monocellules PEM-BT et PEM-HT via des mesures électriques	GdR HySPàC du CNRS (Groupement de Recherche 3652 du CNRS "Hydrogène, systèmes et Piles à combustible")	Limoges, France	2017	Oral
S. Pin, H. Frémont and A. Guédon-Garcia	Combined creep characterisation from single lap shear tests and 3D implementation for fatigue simulations	ESREF 2017 (28th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Bordeaux, France	2017	Oral
S. Rigal, O. Rallieres, C. Turpin, A. Jaafar, G. Gager, T. Hordé, F. Boudjemaa and J.-B. Jollys	Caractérisation et modélisation dans différentes conditions opératoires d'un Assemblage Membrane Electrode Haute Température commercial utilisant un électrolyte en PolyBenzimidazole dopé à l'acide phosphorique	GdR HySPàC du CNRS (Groupement de Recherche 3652 du CNRS "Hydrogène, systèmes et Piles à combustible")	Limoges, France	2017	Oral
T. Rousselin, G. Hubert, D. Régis, M. C. Gatti and A. Bensoussan	Impact of aging on the soft error rate of 6T SRAM for planar and bulk technologies	ESREF 2017 (28th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Bordeaux, France	2017	Oral
S. Serpaud, C. Ghfiri, A. Boyer and A. Durier	Comparison of extraction methods to build a radiated emission model of ICs (ICEM-RE): pros and cons	EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral
A. Bensoussan	Photonic devices in harsh environment: a generalized reliability model	PHAROS 2016	Bordeaux, France	2016	Oral
A. Bensoussan	Optoelectronic devices in harsh environment: a multistress reliability predictive model	ISROS 2016 (International Symposium on Reliability of Optoelectronics for Systems)	Otwock, Poland	2016	Oral

A. Bensoussan and F. Tilhac	A Multistress reliability model applied to Normally-Off GaN Switch Power Transistors	CCT CNES "Wide gap power components in energy conversion"	Toulouse, France	2016	Oral
A. Boyer and A. Durier	Caractérisation et modélisation de l'effet du vieillissement sur l'intégrité de signal d'un buffer d'horloge utilisé dans un calculateur aéronautique	ANADEF 2016 (Analyse de défaillance de composants électroniques)	Seignosse-Hossegor, France	2016	Oral
O. Gilard, A. Bensoussan, S. Mariojous, D. Veyrié, H. Brahimi, G. Guibaud and J. Hauden	Reliability Assurance Guideline for Lithium Niobate-based Electro-Optical Modulators	ISROS 2016 (International Symposium on Reliability of Optoelectronics for Systems)	Otwock, Poland	2016	Oral
M. Zerarka	Modelling Radiation effects on Normally-Off GaN Transistors	CCT CNES "Wide gap power components in energy conversion"	Toulouse, France	2016	Oral
M. Zerarka, P. Austin, A. Bensoussan, F. Morancho and A. Durier	TCAD simulation of the Single Event Effects in normally-off GaN transistors after heavy ion radiation	IEEE - RADECS 2016 (Radiation Effects on Components and Systems)	Bremen, Germany	2016	Oral
A. Bensoussan, E. Suhir, P. Henderson and M. Zahir	A unified multiple stress reliability model for microelectronic devices — Application to 1.55 μm DFB laser diode module for space validation	ESREF 2015 (26th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Toulouse, France	2015	Oral
A. Durier	Methodology to characterize and model ageing effect on components' EMC behavior (Emission and Immunity)	ESREF 2015 (26th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Toulouse, France	2015	Oral
A. Durier, A. Bensoussan, M. Zerarka, C. Ghfiri, A. Boyer and H. Frémont	A methodologic project to characterize and model COTS component reliability	ESREF 2015 (26th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Toulouse, France	2015	Poster
M. Zerarka	Modelling Radiation effects on Normally-Off GaN Transistors	ESREF 2015 (26th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis)	Toulouse, France	2015	Oral

Power Technologies & Integration

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
A. Castelan, B. Cougo, S. Dutour and T. Meynard	3D analytical modelling of plate fin heat sink on forced convection	Mathematics and Computers in Simulation		2018	https://doi.org/10.1016/j.matcom.2018.09.011
A. Bernot, A. Giraud, Y. Lefèvre and J.-F. Llibre	Experimental Study of Iron Losses Generated by a Uniform Rotating Field	IEEE - Transactions on Magnetics	vol 53, pp 6300705	2017	https://doi.org/10.1109/TMAG.2017.2707542

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
P. Bau, M. Cousineau, B. Cougo, F. Richardeau, D. Colin and N. Rouger	A CMOS gate driver with ultra-fast dV/dt embedded control dedicated to optimum EMI and turn-on losses management for GaN power transistors	IEEE - PRIME 2018 (14th Conference on PhD Research in Microelectronics and Electronics)	Prague, Czech Republic	2018	Oral	https://doi.org/10.1109/PRIME.2018.8430331
A. Castelan, B. Cougo, S. Dutour and T. Meynard	Optimisation de dissipateurs à ailettes pour des convertisseurs utilisant des composants puissance discrets	SGE 2018 (3e Symposium de Génie Electrique)	Nancy, France	2018	Poster	

B. Cougo, H. Hoffmann Sathler and R. Riva	Caractéristiques de commutation du module SiC à faible inductance avec condensateurs intégrés pour les applications aéronautiques	SGE 2018 (3e Symposium de Génie Electrique)	Nancy, France	2018	Oral	
B. Cougo, M. Lenin and R. Riva	Influence de méthodes PWM sur le cyclage thermique des semiconducteurs d'un onduleur SiC triphasé 15kVA	SGE 2018 (3e Symposium de Génie Electrique)	Nancy, France	2018	Oral	
B. Cougo, T. Meynard, G. Gateau and M. Lenin	Zero Sequences Optimizing Different Criteria for Three-phase Multilevel Inverters	IEEE - ECCE 2018 (10th Energy Conversion Congress & Exposition)	Portland, USA	2018	Oral	https://doi.org/10.1109/ECCE.2018.8557898
B. Cougo, H. Sathler and R. Riva	Switching characteristics of low inductance SiC module with integrated capacitors for aircraft applications	IEEE - CIPS 2018 (10th International Conference on Integrated Power Electronics Systems)	Stuttgart, Germany	2018	Oral	
D.-H. Tran, V. Dos Santos and G. Segond	Modeling and analysis of EMI and overvoltage phenomenon in SiC inverter driven motor at high switching frequency	IEEE - PEMC 2018 (18th International Conference on Power Electronics and Motion Control)	Budapest, Hungary	2018	Poster	https://doi.org/10.1109/EPEPEMC.2018.8521882
A. Bernot and A. Cariou	Adaptation of an airliner motor to a 540V network	IEEE - IEMDC 2017 (International Electric Machines and Drives Conference)	Miami, USA	2017	Poster	https://doi.org/10.1109/IEMDC.2017.8002170
A. Cariou and A. Bernot	A reluctant analytical model of PMSM for an electromechanical chain's optimization process	IEEE - IEMDC 2017 (International Electric Machines and Drives Conference)	Miami, USA	2017	Poster	https://doi.org/10.1109/IEMDC.2017.8002287
A. Castelan, B. Cougo, S. Dutour and T. Meynard	3D Analytical Modelling of Sink Heat Distribution for Fast Optimisation of Power Converters	ELECTRIMACS 2017	Toulouse, France	2017	Oral	
B. Cougo, V. Dos Santos, A. Hilal and D.-H. Tran	Trade-off between Losses and EMI Issues in Three-Phase SiC Inverters for More Electrical Aircrafts	MEA 2017 (More Electrical Aircraft) - 3AF & SEE	Bordeaux, France	2017	Oral	
B. Cougo, D.-H. Tran, G. Segond and A. Hilal	Influence of PWM methods in semiconductor losses of 15kVA three-phase SiC inverter for aircraft applications	IEEE - EPE'17 ECCE Europe (19th European Conference on Power Electronics and Applications)	Warsaw, Poland	2017	Oral	https://doi.org/10.23919/EPE17ECCEurope.2017.8099043
V. Dos Santos, B. Cougo, B. Sareni, N. Roux, B. Revol and J.-P. Carayon	Trade-off between losses and EMI issues in three-phase SiC inverters for aircraft applications	IEEE - EMCSI 2017 (International Symposium on Electromagnetic Compatibility & Signal/Power Integrity)	Washington, USA	2017	Oral	https://doi.org/10.1109/ISEMC.2017.8077991
V. Dos Santos, N. Roux, B. Revol, B. Sareni, B. Cougo and J.-P. Carayon	Unshielded Cable modeling for Conducted Emissions Issues in Electrical Power Drive Systems	IEEE - EMC Europe 2017 (International Symposium and Exhibition on Electromagnetic Compatibility)	Angers, France	2017	Oral	https://doi.org/10.1109/EMCEurope.2017.8094736
J. Favre, J.-M. Reynes, J.-P. Fradin, D. Elzo, S. Sanchez and C. Cadile	A double side cooled Electronic Power Module	PCIM Europe 2017 (International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management)	Nuremberg, Germany	2017	Oral	
A. Giraud, A. Bernot, Y. Lefèvre and J.-F. Llibre	Measurement of magnetic hysteresis swelling-up with frequency: impact on iron losses in electric machine sheets	IEEE - ECMSM 2017 (International Workshop of Electronics, Control, Measurement, Signals and their application to Mechatronics)	Donosti - San Sebastian, Spain	2017	Oral	https://doi.org/10.1109/ECMSM.2017.7945864

H. Hoffmann Sathler and B. Cougo	Improvement of the Modified Opposition Method used for accurate switching energy estimation of WBG transistors	IEEE - WiPDA 2017 (5th Workshop on Wide Bandgap Power Devices and Applications)	Albuquerque, USA	2017	Oral	https://doi.org/10.1109/WiPDA.2017.8170565
A. Bernot	A high reliability natural convection airliner actuator permanent magnet motor	IEEE - ICEM 2016 (XXIIth International Conference on Electrical Machines)	Lausanne, Switzerland	2016	Oral	https://doi.org/10.1109/ICELMAC.H.2016.7732504
A. Bernot and G. Trémouille	Optimisation and adaptation of an existing aeronautic motor to an HVDC network	IEEE - PEMD 2016 (8th IET International Conference on Power Electronics, Machines and Drives)	Glasgow, UK	2016	Oral	https://doi.org/10.1049/cp.2016.0248
B. Cougo, J.-P. Carayon, V. Dos Santos, A. Hilal and T. Billard	Impacts of the use of SiC semiconductors in actuations systems	R3ASC'16 (7th International Conference on Recent Advances in Aerospace Actuation Systems and Components)	Toulouse, France	2016	Poster	
A. Giraud, A. Bernot, Y. Lefèvre and J.-F. Llibre	Modelling quasi-static magnetic hysteresis: a new implementation of the play model based on experimental asymmetric B(H) loops	IEEE - ICEM 2016 (XXII International Conference on Electrical Machines)	Lausanne, Switzerland	2016	Oral	https://doi.org/10.1109/ICELMAC.H.2016.7732782
A. Giraud, A. Bernot, Y. Lefèvre and J.-F. Llibre	Influence du spectre de l'induction magnétique sur les pertes fer dans les stators de machines électriques	SGE 2016 (2e Symposium de Génie Electrique)	Grenoble, France	2016	Poster	
A. Hilal and B. Cougo	Optimal inductor design and material selection for high power density inverters used in aircraft applications	IEEE - ESARS-ITEC 2016 (International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles & International Transportation Electrification Conference)	Toulouse, France	2016	Oral	https://doi.org/10.1109/ESARS-ITEC.2016.7841359
A. Hilal, B. Cougo and T. Meynard	Characterization of High Power SiC Modules for More Electrical Aircrafts	IEEE - IECON 2016 (42nd Annual Conference of the IEEE Industrial Electronics Society)	Firenze, Italy	2016	Oral	https://doi.org/10.1109/IECON.2016.7794111
C. Buttay, B. Allard and R. Riva	Silver sintering for power electronics integration	IEEE - ICEP-IAAC 2015 (International Conference on Electronics Packaging and iMAPS All Asia Conference)	Kyoto, Japan	2015	Oral	https://doi.org/10.1109/ICEP-IAAC.2015.7111076
A. Castelan, B. Cougo, J. Brandelero, D. Flumian and T. Meynard	Optimization of forced-air cooling system for accurate design of power converters	IEEE - ISIE 2015 (24th International Symposium on Industrial Electronics)	Buzios, Brazil	2015	Oral	https://doi.org/10.1109/ISIE.2015.7281496
B. Cougo	Optimal Cross Section Shape of Tape Wound Cores	IEEE - EPE'15 ECCE-Europe (17th European Conference on Power Electronics and Applications)	Geneva, Switzerland	2015	Oral	https://doi.org/10.1109/EPE.2015.7309350
P. Favre, J.-M. Reynes and J. Favre	Real 3D-packaging: a breakthrough for high power electronics for automotive applications	APE 2015 (6e congrès Automotive Power Electronics - Société des Ingénieurs de l'Automobile)	Paris, France	2015	Oral	

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
A. Castelan, B. Cougo, S. Dutour, J.-P. Fradin and T. Meynard	Analytical modelling of plate fin heat sink in forced convection: comparison to typical CFD software and test bench	iMAPS 2018 (13th European Advanced Technology Workshop on Micropackaging and Thermal Management)	La Rochelle, France	2018	Oral
L. Fourgeaud, R. Mari, V. Dupont and C. Figus	Experimental investigations of a Multi-Source Loop Heat Pipe for electronics cooling	IHPC & IHPS 2018 (19th International Heat Pipe Conference and 13th international heat pipe symposium)	Pisa, Italy	2018	Oral
L. Fourgeaud, R. Mari, V. Dupont and C. Figus	Multi-source miniaturized Loop Heat Pipes for electronics cooling	32nd European Space Thermal Analysis Workshop (European Workshop on Thermal and ECLS Software)	Noordwijk, Netherlands	2018	Oral
J.-P. Fradin, J.-M. Reynes, D. Elzo, S. Sanchez, F. Gomez, M. Ramier-Lezat and J. Favre	Innovative SiC power modules: junction temperature estimation	iMAPS 2018 (13th European Advanced Technology Workshop on Micropackaging and Thermal Management)	La Rochelle, France	2018	Oral
L. Lachassagne	SOCOOL project – Thermal solutions for embedded systems	iMAPS 2018 (13th European Advanced Technology Workshop on Micropackaging and Thermal Management)	La Rochelle, France	2018	Oral
M. Levêque, S. Dutour, M. Miscevic, Y. Bertin and R. Mari	A theoretical investigation of a controlled hybrid mechanical/capillary pumped loop	IHPC & IHPS 2018 (19th International Heat Pipe Conference and 13th international heat pipe symposium)	Pisa, Italy	2018	Poster
A. Marie, P. Lavieille, M. Miscevic, L. Lachassagne and V. Dupont	Experimental investigation of a capillary-assisted high performance evaporator	IHPC & IHPS 2018 (19th International Heat Pipe Conference and 13th international heat pipe symposium)	Pisa, Italy	2018	Oral
A. Marie, P. Lavieille, M. Miscevic, L. Lachassagne and V. Dupont	Evaporateur à alimentation hybride pour boucle de refroidissement fluide	SFT 2018 (Congrès Français de Thermique)	Pau, France	2018	Oral
A. Castelan, B. Cougo, S. Dutour and T. Meynard	Plate fin heat sink analytical modeling for fast and precise optimization	ISP3D 2017 (Intégration des Systèmes de l'électronique de Puissance en 3D)	Toulouse, France	2017	Poster
A. Bernot, A. GIRAUD, L. Y. and J.-F. Llibre	Experimental study of iron losses generated by a uniform rotating field	IEEE - Intermag 2017 (International Magnetics conference)	Dublin, Ireland	2017	Oral
A. Castelan	3D Analytical Modelling of Heat Sink for Fast Optimisation of Power Converters Weight	Congrès de l'Ecole Doctorale GEET (Génie Electrique, Electronique, Télécommunications)	Toulouse, France	2017	Oral
B. Cougo	Impact of SiC Converter in a Power Drive System for Aircraft Applications	GIFAS (Composants Grand GAP Etat de l'art et Evolution point sur la maturité Intérêts dans les applications)	Toulouse, France	2017	Oral
B. Cougo and R. Sutra-Orus	Activités de recherches industrielles sur l'intégration de puissance	ISP3D 2017 (Intégration des Systèmes de l'électronique de Puissance en 3D)	Toulouse, France	2017	Oral

J.-P. Fradin, D. Elzo, S. Sanchez, C. Cadile, M. Balzer, P.-A. Colombie, J.-M. Reynes and J. Favre	Innovative power modules: junction temperature estimation	iMAPS 2017 (12th European Advanced Technology Workshop on Micropackaging and Thermal Management)	La Rochelle, France	2017	Oral
A. Marie, P. Lavieille, M. Miscevic and L. Lachassagne	Etude expérimentale d'un évaporateur constitué de micro-canaux à deux dimensions caractéristiques	SFT 2017 (Congrès Français de Thermique)	Marseille, France	2017	Oral
R. Riva	Utilisation de céramique pour la réalisation de module de puissance performant à travers une intégration 3D	Journée Technique du Pôle Européen de la Céramique	Tarbes, France	2017	Oral
B. Cougo	Overview on SiC and GaN transistors in modern power electronics for More Electrical Aircraft applications	CCT CNES "Wide gap power components in energy conversion"	Toulouse, France	2016	Oral
B. Cougo	Wide BandGap Components for Aircrafts Applications: Three-phase SiC inverters for MEA	ESARS 2016 (International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles)	Toulouse, France	2016	Oral
A. Davy and J.-P. Carayon	Augmentation de la densité de puissance des chaînes électromécaniques par la maîtrise des technologies clés et une approche pluridisciplinaire permettant l'optimisation	Entretiens de Toulouse	Toulouse, France	2016	Oral
D. Elzo, S. Sanchez, J.-M. Reynes and J. Favre	Caractérisation électrique, thermique et fluidique de modules de puissance de nouvelle génération	Astelab Thermique 2016 "Virtualisation de la conception et tests thermiques des systèmes"	Toulouse, France	2016	Oral
D. Elzo, C. Cadile, J.-P. Fradin, J.-M. Reynes, B. Du Trieu, P. Monfraix and J. Favre	Caractérisation hydrodynamique d'un module de puissance de nouvelle génération	SFT 2016 (Congrès Français de Thermique)	Toulouse, France	2016	Poster
J.-P. Fradin, D. Elzo, S. Sanchez, J.-M. Reynes, B. Du Trieu and P. Monfraix	Elaboration d'un banc de test pour la caractérisation thermo-fluidique de modules de puissance de nouvelle génération	SFT 2016 (Congrès Français de Thermique)	Toulouse, France	2016	Poster
J.-P. Fradin, D. Elzo, S. Sanchez, J. De Martres, G. De Ramecourt, J.-M. Reynes, B. Du Trieu and P. Monfraix	Characterization of highly dissipative power modules	iMAPS 2016 (11th European Advanced Technology Workshop on Micropackaging and Thermal Management)	La Rochelle, France	2016	Oral
L. Lachassagne	Caractérisation expérimentale de grandeurs thermiques	Astelab Thermique 2016 "Virtualisation de la conception et tests thermiques des systèmes"	Toulouse, France	2016	Oral

Intelligent Systems & Data

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
J. Bonnet, M.-P. Gleizes, E. Kaddoum and S. Rainjonneau	ATLAS : Planification multi-satellite dynamique et temps réel	Revue d'Intelligence Artificielle	vol 30, pp 35 - 59	2016	http://dx.doi.org/10.3166/ria.30.35-59

Other articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
P. Besse, B. Guillouet and B. Laurent	Wikistat 2.0 : Educational Resources for Artificial Intelligence	HAL		2018	https://hal.archives-ouvertes.fr/hal-01883120v2
D. Vigouroux and S. Picard	FUNN: Flexible Unsupervised Neural Network	HAL - Arxiv (en pré-publication)		2018	https://arxiv.org/abs/1811.01749

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
T. Jammot, E. Kaddoum and S. Rainjonneau	Planification de vidage d'images satellitaires par systèmes multi-agents auto-adaptatifs	JFSMA 2018 (26es Journées Francophones sur les Systèmes Multi-Agents)	Métabief, France	2018	Oral	
G. Roussel, O. Liandrat, S. Rainjonneau, S. Cros and M. Turpin	Qualification of a new short-term cloud forecasting method for the optimization of Earth observation satellite programs	SPIE Remote Sensing of Clouds and the Atmosphere XXIII (Society of Photo-Optical Instrumentation Engineers)	Berlin, Germany	2018	Oral	https://doi.org/10.1117/12.2326800
M. Le Goff, M. Ortner, J.-Y. Tourneret, H. Wendt and M. Spigai	Deep learning for cloud detection	IEEE - ICPRS 2017 (8th International Conference of Pattern Recognition Systems)	Madrid, Spain	2017	Oral	https://doi.org/10.1049/cp.2017.0139
J. Bonnet, M.-P. Gleizes, E. Kaddoum and S. Rainjonneau	Rapid and adaptative mission planner for multi-satellite missions using a self-adaptative multi-agent system	IAC 2016 (67th International Astronautical Congress)	Guadalajara, Mexico	2016	Oral	
M. Le Goff, J.-Y. Tourneret, H. Wendt, M. Ortner and M. Spigai	Distributed Boosting for Cloud Detection	IEEE - IGARSS 2016 (International Geoscience and Remote Sensing Symposium)	Beijing, China	2016	Poster	http://dx.doi.org/10.1109/IGARSS.2016.7729678
J. Bonnet, M.-P. Gleizes, E. Kaddoum and S. Rainjonneau	Planification de missions multi-satellites par système multi-agent coopératif	JFSMA 2015 (23es Journées Francophones sur les Systèmes Multi-Agents)	Rennes, France	2015	Oral	
J. Bonnet, M.-P. Gleizes, E. Kaddoum, S. Rainjonneau and G. Flandin	Multi-satellite mission planning using a self-adaptive multi-agent system	IEEE - SASO 2015 (9th International Conference on Self-Adaptive and Self-Organizing Systems)	Cambridge, USA	2015	Oral	https://doi.org/10.1109/SASO.2015.9

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
R. Hugues	Artificial Intelligence for Earth Observation	Sophl.A Summit 2018 (tremplin de l'intelligence artificielle)	Sophia Antipolis, France	2018	Oral
C. Pecoste	Utilisabilité, utilité et acceptabilité d'un logiciel de transmission des connaissances procédurales dans l'industrie	ICAP 2018 (29th International Congress of Applied Psychology)	Montréal, Canada	2018	Oral

C. Pecoste	Les interfaces homme-machine multimodales pour le recueil et la transmission du savoir-faire dans un contexte industriel	SYCYPH-IdF - Atelier Enjeux pluridisciplinaires de la transformation numérique dans l'industrie du futur	Toulouse, France	2018	Oral
M. Le Goff, M. Ortner, M. Spigai and G. Flandin	Massive learning-Based Image Processing in the cloud	Innovation IT Day 2016	Toulouse, France	2016	Oral
C. Pecoste, L. Turmel, C. Lemerrier and A. Gonçalves	MIMIKS : une approche d'ergonomie cognitive pour la capture du savoir-faire des experts au travail	ERGO'IA 2016 (15e Conférence internationale - Ergonomie - Informatique Avancée)	Bidart, France	2016	Oral
G. Flandin, M. Picard, A. Berjaoui and J. Lachaize	RF signal processing from space - Traitements embarqués pour la détection de signaux faibles RF appliquée à l'IoT par satellites	Innovation IT Day 2015	Toulouse, France	2015	Oral
M. Le Goff	Problématiques big data et cloud computing pour les futurs services d'observation de la Terre	Innovation IT Day 2015	Toulouse, France	2015	Oral

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Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
A. R. Camboulives, M. t. Velluet, S. Poulénard, L. Saint-Antonin and M. Vincent	Statistical and temporal irradiance fluctuations modeling for a ground-to-geostationary satellite optical link	Applied Optics	vol 57, pp 709 - 721	2018	https://doi.org/10.1364/AO.57.000709

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
K. Elayoubi, A. Rissons and A. Belmonte	Optical test bench experiments for 1-Tb/s satellite feeder uplinks	SPIE Optical Engineering +Applications - Laser Communication and Propagation through the Atmosphere and Oceans VII (Society of Photo-Optical Instrumentation Engineers)	San Diego, USA	2018	Oral	https://doi.org/10.1117/12.2317728
J.-A. Lucciardi, G. Mesnager, N. Thomas, C. Poulliat, M.-L. Boucheret and G. Buscarlet	Piecewise Volterra Series Approximation for Improved Non-Linear Channel Modelization and Detection	IEEE - GLOBECOM 2018 (Global Communications Conference)	Abu Dhabi, United Arab Emirates	2018	Oral	https://doi.org/10.1109/GLOCOM.2018.8647907
A. Maho, M. Faugeron, A. Le Kernec, M. Sotom and K. Elayoubi	Assessment of the effective performance of DPSK vs. OOK in satellite-based optical communications	ICSO 2018 (12th International Conference on Space Optics)	Chania, Greece	2018	Poster	
A.-R. Camboulives, M.-T. Velluet, L. Saint-Antonin, S. Poulénard and V. Michau	Optical ground station optimization for future optical geostationary satellite feeder uplinks	SPIE - Photonics West 2017 - LASE - Free-Space Laser Communication and Atmospheric Propagation XXIX (Society of Photo-Optical Instrumentation Engineers)	San Francisco, USA	2017	Oral	http://dx.doi.org/10.1117/12.2249994
K. Elayoubi, A. Rissons, J. Lacan, L. Saint Antonin, M. Sotom and A. Le Kernec	RZ-DPSK Optical Modulation For free Space Optical Communication by Satellites	IEEE - OECC & PGC 2017 (Opto-Electronics and Communications Conference & Photonics Global Conference)	Singapore, Republic of Singapore	2017	Oral	https://doi.org/10.1109/OECC.2017.8115015
K. Elayoubi, A. Rissons, J. Lacan, L. Saint Antonin, M. Sotom and A. Le Kernec	Optical receiver sensitivity improvement using RZ-DPSK for Free Space Optical Communication by Satellites	ICO 24 (24th congress of the International Commission of Optics)	Tokyo, Japan	2017	non présenté	

O. Liandrat, S. Cros, L. Braun, L. Saint Antonin, J. Decroix and N. Schmutz	Cloud cover forecast from a ground-based all sky infrared thermal camera	SPIE Remote Sensing of Clouds and the Atmosphere XXII (Society of Photo-Optical Instrumentation Engineers)	Warsaw, Poland	2017	Oral	https://doi.org/10.1117/12.2278636
J.-A. Lucciardi, P. Potier, G. Buscarlet, F. Barrami and G. Mesnager	Non-Linearized Amplifier and Advanced Mitigation Techniques: DVB-S2X Spectral Efficiency Improvement	IEEE - GLOBECOM 2017 (Global Communications Conference)	Singapore, Republic of Singapore	2017	Oral	https://doi.org/10.1109/GLOCOM.2017.8255091
J.-A. Lucciardi, N. Thomas, M.-L. Boucheret, C. Poulliat and G. Mesnager	Receiver for FTN signaling in non-linear channel : joint channel estimation and synchronization	IEEE - PIMRC 2017 (28th Annual International Symposium on Personal, Indoor and Mobile Radio Communications)	Montréal, Canada	2017	Oral	https://doi.org/10.1109/PIMRC.2017.8292221
C. D. Munoz, K. Elayoubi, A. Rissons, S. Villamizar and M. Varon	O-band and C-band VCSEL based optoelectronic oscillator (VBO) for 1.25 Gbit/s pulsed RZ-OOK and RZ-DPSK free space optical transmissions	IEEE - MWP 2017 (International Topical Meeting on Microwave Photonics)	Beijing, China	2017	Poster	https://doi.org/10.1109/MWP.2017.8168782
Y. Cerezal, O. Grémillet and C. Baudoin	Satellite diversity system emulator	AIAA - ICSSC (34th International Communications Satellite Systems Conference - The American Institute of Aeronautics and Astronautics)	Cleveland, USA	2016	Oral	https://doi.org/10.2514/6.2016-5767
J.-A. Lucciardi, N. Thomas, M.-L. Boucheret, C. Poulliat and G. Mesnager	Trade-Off between spectral efficiency increase and PAPR reduction when using FTN Signaling: impact of non linearities	IEEE - ICC 2016 (International Conference on Communications)	Kuala Lumpur, Malaysia	2016	Oral	https://doi.org/10.1109/ICC.2016.7510842
B. Benammar, N. Thomas, C. Poulliat, M.-L. Boucheret and M. Dervin	A comparison of iterative receivers for the non linear satellite channel	IEEE - SPAWC 2015 (16th International Workshop on Signal Processing Advances in Wireless Communications)	Stockholm, Sweden	2015	Oral	https://doi.org/10.1109/SPAWC.2015.7227092
C. Bertin, S. Cros, L. Saint-Antonin and N. Schmutz	Prediction of optical communication link availability: real-time observation of cloud patterns using a ground-based thermal infrared camera	SPIE Remote Sensing - Conference on Optics in Atmospheric Propagation and Adaptive Systems XVIII (Society of Photo-Optical Instrumentation Engineers)	Toulouse, France	2015	Oral	https://doi.org/10.1117/12.2194920
R. Tajan, B. Benammar, C. Poulliat and M.-L. Boucheret	On coding for Faster-Than-Nyquist Signaling	IEEE - BlackSeaCom 2015 (International Black Sea Conference on Communications and Networking)	Constanta, Romania	2015	Oral	https://doi.org/10.1109/BlackSeaCom.2015.7185093

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
K. Elayoubi, L. Saint Antonin, A. Le Kernec, M. Sotom, A. Rissons and J. Lacan	Génération des formes d'ondes optiques pour la communication à travers l'atmosphère	Journée du Club Optique et Micro Onde 2016	Nice, France	2016	Poster
C. Baudoin, O. Gremillet and Y. Cerezal	IRT Satellite Bench to experiment Gateway Diversity	Toulouse Space Show	Toulouse, France	2016	Oral
O. Liandrat, C. Bertin, S. Cros and L. Saint-Antonin	Day and night cloud occurrence climatology for space-to-ground optical communication feasibility : the advantages of a thermal infrared sky imager	AGU Fall Meeting (American Geophysical Union)	San Francisco, USA	2016	Oral
J.-A. Lucciardi	Trade-Off between spectral efficiency increase and PAPR reduction when using FTN Signaling: impact of non linearities	CCT CNES - TSI (Traitement du Signal et de l'Image)	Toulouse, France	2016	Oral

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Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
R. Dupuis, J.-C. Jouhaud and P. Sagaut	Surrogate Modeling of Aerodynamic Simulations for Multiple Operating Conditions Using Machine Learning	AIAA Journal (The American Institute of Aeronautics and Astronautics)	vol 56, pp 3622 - 3635	2018	https://doi.org/10.2514/1.J056405

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
P.-J. Barjhoux, Y. Diouane, S. Grihon, D. Bettebghor and J. Morlier	A Bilevel Methodology for solving a Structural Optimization Problem with both Continuous and Categorical variables	AIAA - ISSMO 2018 (19th Multidisciplinary Analysis and Optimization Conference, AIAA AVIATION Forum - The American Institute of Aeronautics and Astronautics)	Atlanta, USA	2018	Oral	https://doi.org/10.2514/6.2018-3579
R. Dupuis, J.-C. Jouhaud and P. Sagaut	Aerodynamic Data Predictions for Transonic Flows via a Machine-Learning-based Surrogate Model	AIAA - ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, SciTech Forum (The American Institute of Aeronautics and Astronautics)	Kissimmee, USA	2018	Oral	https://doi.org/10.2514/6.2018-1905
F. Gallard, C. Vanaret, D. Guénot, V. Gachelin, R. Lafage, B. Pauwels, P.-J. Barjhoux and A. Gazaix	GEMS: A Python Library for Automation of Multidisciplinary Design Optimization Process Generation	AIAA - ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, SciTech Forum (The American Institute of Aeronautics and Astronautics)	Kissimmee, USA	2018	Oral	https://arc.aiaa.org/doi/10.2514/6.2018-0657
P.-J. Barjhoux, Y. Diouane, S. Grihon, D. Bettebghor and J. Morlier	Mixed Variable Structural Optimization: toward an Efficient Hybrid Algorithm	WCSMO 2017 (12th World Congress of Structural and Multidisciplinary Optimisation)	Braunschweig, Germany	2017	Oral	http://dx.doi.org/10.1007/978-3-319-67988-4_140
A. Gazaix, F. Gallard, V. Gachelin, T. Druot, S. Grihon, V. Ambert, D. Guénot, R. Lafage, C. Vanaret, B. Pauwels, N. Bartoli, T. Lefèbvre, P. Sarouille, N. Desfachelles, J. Brézillon, M. Hamadi and S. Gürol	Towards the Industrialization of New MDO Methodologies and Tools for Aircraft Design	AIAA - ISSMO 2017 (18th Multidisciplinary Analysis and Optimization Conference, AIAA AVIATION Forum - The American Institute of Aeronautics and Astronautics)	Denver, USA	2017	Oral	https://doi.org/10.2514/6.2017-3149
C. Vanaret, F. Gallard and J. R. R. A. Martins	On the Consequences of the "No Free Lunch" Theorem for Optimization on the Choice of an Appropriate MDO Architecture	AIAA - ISSMO 2017 (18th Multidisciplinary Analysis and Optimization Conference, AIAA AVIATION Forum - The American Institute of Aeronautics and Astronautics)	Denver, USA	2017	Oral	https://doi.org/10.2514/6.2017-3148

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
A. Gazaix	Use of XRF-1 model at IRT Saint Exupéry	Airbus XRF1 Workshop	Bristol, UK	2018	Oral
D. Guénot, F. Gallard, J. Brézillon and Y. Mérillac	Aerodynamic optimization of a parametrized pylon engine on a mission path using adjoint method	ECCM - ECFD 2018 (6th European Conference on Computational Mechanics - 7th European Conference on Computational Fluid Dynamics)	Glasgow, UK	2018	Oral
R. Dupuis, J. C. Jouhaud and P. Sagaut	Physical-Based Surrogate Modeling for Aerodynamic Simulations	MASCOT NUM 2017 (Annual Conference GdR Méthodes d'Analyse Stochastique pour les COdes et Traitements NUMériques)	Paris, France	2017	Poster
R. Dupuis, J.-C. Jouhaud and P. Sagaut	Physical-Based Surrogate Modeling for Aerodynamics Simulations	Journée des Doctorants du CERFACS 2017	Toulouse, France	2017	Poster
V. Gachelin	Data management and MDO supervision	1st European Workshop on MDO for Industrial Applications in Aeronautics – Challenges and Expectations	Braunschweig, Germany	2017	Oral
V. Gachelin	Simulation workflow automation with ModelCenter Integrate in the context of Multidisciplinary Optimization at IRT Saint Exupéry	MBE workshop (Model Based Engineering)	Saint-Ouen, France	2017	Oral
F. Gallard	GEMS: creation, automation and reconfiguration of MDO processes	1st European Workshop on MDO for Industrial Applications in Aeronautics – Challenges and Expectations	Braunschweig, Germany	2017	Oral
A. Gazaix	Overview and main challenges of MDO at IRT Saint Exupéry	1st European Workshop on MDO for Industrial Applications in Aeronautics – Challenges and Expectations	Braunschweig, Germany	2017	Oral
A. Gazaix	Towards the Industrialization of New MDO Technologies and Tools for Aircraft Design	DiPaRT 2017 (8th Airbus Flight Physics Distributed Research & Technology Partnership)	Bristol, UK	2017	Oral

Systems Engineering

Book

Authors	Title	Editor	Année
E. Jenn	The INGEQUIP Project - Modelling and Formal Verification in Action	IRT Saint Exupéry	2017

Journal articles

Authors	Title	Journal	References (volume, pages)	Year	DOI
N. Ge, E. Jenn, N. Breton and Y. Fonteneau	Integrated formal verification of safety-critical software	International Journal on Software Tools for Technology Transfer	vol 20, pp 423 - 440	2018	https://doi.org/10.1007/s10009-017-0475-0

Proceedings

Authors	Title	Conference	Location	Year	Poster\Oral presentation	DOI
A. Albore, S. Dal Zilio, M. de Roquemaurel, C. Seguin and P. Virelizier	Timed Formal Model and Verification of Satellite FDIR in Early Design Phase	ERTS2 2018 (Embedded Real Time Software and Systems)	Toulouse, France	2018	Oral	
J.-P. Bodeveix, A. Dieumegard and M. Filali	Pattern-based requirements development	ERTS2 2018 (Embedded Real Time Software and Systems)	Toulouse, France	2018	Oral	
J.-P. Bodeveix, A. Dieumegard and M. Filali	Event-B formalization of variability-aware component model patterns framework	FACS 2018 - 15th International Conference on Formal Aspects of Component Software	Pohang, Korea	2018	Oral	https://doi.org/10.1007/978-3-030-02146-7_3
A. Albore, S. Dal Zilio, G. Infantes, C. Seguin and P. Virelizier	A Model-Checking Approach to Analyse Temporal Failure Propagation with AltaRica	IMBSA 2017 (5th International Symposium on Model-Based Safety and Assessment)	Trento, Italy	2017	Oral	https://doi.org/10.1007/978-3-319-64119-5_10
J. Brunel, F. Peter, J. Hugues, B. Lewis, T. Prosvirnova, C. Seguin and L. Wrage	Performing Safety Analyses with AADL and AltaRica	IMBSA 2017 (5th International Symposium on Model-Based Safety and Assessment)	Trento, Italy	2017	Oral	https://doi.org/10.1007/978-3-319-64119-5_5
A. Dieumegard, N. Ge and E. Jenn	Event-B at Work: some Lessons Learnt from an Application to a Robot Anti-Collision Function	NFM 2017 (9th NASA Formal Methods Symposium)	Moffett Field, USA	2017	Oral	https://doi.org/10.1007/978-3-319-57288-8_24
N. Ge, A. Dieumegard, E. Jenn, B. d'Ausbourg and Y. Aït-Ameur	Formal Development process of safety-critical embedded human machine interface systems	IEEE - TASE 2017 (11th International Symposium on Theoretical Aspects of Software Engineering)	Sophia Antipolis, France	2017	Oral	https://doi.org/10.1109/TASE.2017.8285636
R. Leroux, I. Ober, M. Pantel and J.-M. Bruel	Modeling co-simulation: a first experiment	GEMOC 2017 (5th International Workshop on The Globalization of Modeling Languages)	Austin, USA	2017	Oral	http://ceur-ws.org/Vol-2019/gemoc_3.pdf
T. Prosvirnova, E. Saez, C. Seguin and P. Virelizier	Handling consistency between safety and system models	IMBSA 2017 (5th International Symposium on Model-Based Safety and Assessment)	Trento, Italy	2017	Oral	https://doi.org/10.1007/978-3-319-64119-5_2
F. Zalila, E. Jenn and M. Pantel	Model Execution and Debugging: A process to leverage existing tools	ModelsWard 2017 (5th International Conference on Model-Driven Engineering and Software Development)	Porto, Portugal	2017	Oral	https://doi.org/10.5220/0006143104010408
G. Bois, F. Montero, E. Jenn and K. Duplantier	Architectural Exploration and Implementation of an Image Processing Chain with SpaceStudio	IEEE - FPL 2016 (26th International Conference on Field Programmable Logic and Applications)	Lausanne, Switzerland	2016	Demonstration	
P.-A. Bourdil, E. Jenn and S. Dal Zilio	Building Confidence on Formal Verification Models	SafeComp 2016 (International conference on Computer Safety, Reliability and security)	Trondheim, Norway	2016	Oral	
M. Clabaut, N. Ge, N. Breton, E. Jenn, R. Delmas and Y. Fonteneau	Industrial Grade Model Checking: Use Cases, Constraints, Tools and Applications	ERTS2 2016 (Embedded Real Time Software and Systems)	Toulouse, France	2016	Oral	
P. Cuenot, E. Jenn, E. Faure, N. Broueilh and E. Rouland	An Experiment on Exploiting Virtual Platforms for the Development of Embedded Equipments	ERTS2 2016 (Embedded Real Time Software and Systems)	Toulouse, France	2016	Oral	
A. Dieumegard, A. Toom and M. Pantel	Block Library Driven Translation Validation for Dataflow Models in Safety Critical Systems	FMICS - AVoCS 2016 (21st International Workshop on Formal Methods for Industrial Critical Systems & 16th International Workshop on Automated Verification of Critical Systems)	Pisa, Italy	2016	Oral	http://dx.doi.org/10.1007/978-3-319-45943-1_8

N. Ge, E. Jenn, N. Breton and Y. Fontenneau	Formal Verification of a Rover Anti-collision System	FMICS - AVoCS 2016 (21st International Workshop on Formal Methods for Industrial Critical Systems & 16th International Workshop on Automated Verification of Critical Systems)	Pisa, Italy	2016	Oral	https://doi.org/10.1007/978-3-319-45943-1_12
B. Ouni, P. Gauffillet and P. Cuenot	TwIRTEE design exploration with Capella and IP-XACT	DVCon Europe (Design and Verification Conference and Exhibition)	Munich, Germany	2016	Oral	
B. Ouni, P. Gauffillet, E. Jenn and J. Hugues	Model Driven Engineering with Capella and AADL	ERTS2 2016 (Embedded Real Time Software and Systems)	Toulouse, France	2016	Oral	
N. K. Singh, Y. Aït-Ameur, M. Pantel, A. Dieumegard and E. Jenn	Stepwise Formal Modeling and Verification of Self-Adaptive Systems with Event-B. The Automatic Rover Protection Case Study	IEEE - ICECCS 2016 (21st International Conference on Engineering of Complex Computer Systems)	Dubaï, United Arab Emirates	2016	Oral	https://doi.org/10.1109/ICECCS.2016.015

Conference communications

Authors	Title	Conference	Location	Year	Poster\Oral presentation
B. Bossa, B. Boulbene, S. Dubé and M. Pantel	Towards a co-simulation based model assessment process for system architecture	CoSim-CPS-18 (2nd Workshop on Formal Co-Simulation of Cyber-Physical Systems)	Toulouse, France	2018	Oral
H. Delseny	Defining the Overarching Properties: the RESSAC project	CTIC (Certification Together International Conference)	Toulouse, France	2017	Oral
E. Jenn	Hic Sunt Leones. De l'ingénierie système à l'ingénierie des SoCs	COMPAS 2017 (Conférence d'informatique en Parallélisme, Architecture et Système)	Sophia Antipolis, France	2017	Oral
E. Jenn	Sur la pratique des méthodes formelles par de non praticiens : Autopsie d'un robot	Journée FMF (Forum Méthodes Formelles)	Toulouse, France	2017	Oral
E. Jenn	The INGEQUIP Project and the TwIRTEE demonstrator	Convecs	Charavines , France	2015	Oral