

ICOLSE - INTERNATIONAL CONFERENCE ON LIGHTNING & STATIC ELECTRICITY (PRELIMINARY SCHEDULE)												
	MON			TUE			WED			THU		
	Room 1	Room 2	Room 3	Room 1	Room 2	Room 3	Room 1	Room 2	Room 3			
8:20 AM												
8:40 AM		Registration			Registration							
9:00 AM												
9:20 AM			Open Ceremony									
9:40 AM			INVITED SPEAKER	Lightning and Atmospheric Phenomenology		Lightning Zoning		Course LP-Sadeghi MASSOUD		Technical Visit		
10:00 AM												
10:20 AM		Coffee break			Coffee break			Coffee break				
10:40 AM												
11:00 AM												
11:20 AM		KEYNOTE SPEAKERS			Round table Franck Flourens							
11:40 AM							Fuel Tanks and Fuel Systems		Electrostatics			
12:00 PM												
12:20 PM												
12:40 PM		Lunch			Lunch			Lunch				
1:00 PM												
1:20 PM												
1:40 PM		RESERVED SPONSOR			RESERVED SPONSOR			RESERVED SPONSOR				
2:00 PM												
	Lightning Direct Effects - Composites		Lightning and Atmospheric Phenomenology	Lightning and Atmospheric Phenomenology and Detection		Ground Structures	Lightning Indirect Effects and Modelling		Lightning and Atmospheric Phenomenology	SINCROTON LABORATORY Visit.		
2:20 PM												
2:40 PM												
3:00 PM												
3:20 PM		Coffee break			Coffee break			Coffee break				
3:40 PM												
4:00 PM	Lightning Direct Effects - Composites		Lightning and Atmospheric Phenomenology	Lightning and Atmospheric Phenomenology and Detection		Ground Structures			Closing Ceremony			
4:20 PM												
4:40 PM												
5:00 PM												
7:00 PM				GALA DINNER								
11:00 PM												



September 9	
08:30 – 12:00	Registration
09:00 – 09:20	Open Ceremony - Dean of Unicamp Prof. Antonio José Almeida Meirelles
09:20 – 09:50	Room 3 Invited Speaker - EMBRAER
9:50 – 10:20	Coffee Break & Exhibition
10:20 – 10:50	Room 3 Presentation by Dayton Granger

10:50 – 11:20	<b>Room 3</b>	
	<b>Presentation by LDS – Lightning Diversion Systems</b>	
11:20 – 11:50	<b>Room 3</b>	
	<b>Keynote Speaker:</b> Prof. Fernando Galembeck “Electricity and Hydrogen Production at water-air and other aqueous interface”	
12:00 – 1:40 PM	<b>Lunch</b>	
	<b>Room 1</b> <b>Lightning and Atmospheric Phenomenology</b>	<b>Room 3</b> <b>Lightning Direct Effects-Composites</b>
1:40 PM	<b>A Summary Evaluation of Thermoplastic Composites When Subjected to Direct Effects of Lightning</b> Rebeka Khajepour and Alyssa Gonzalez	<b>Multi-Physics Simulations of Direct Lightning Damage to Elastoplastic Substrates</b> Jakob J. Schoser, Stephen Millmore, Nikolaos Nikiforakis
2:00 PM	<b>Investigating strategies for categorizing electric field pulses associated with return strokes and other lightning-related processes</b> Gustavo Barbosa, Lucas Viegas, Karine Teixeira, Matheus Vianna, Matheus Martins, Alberto Torres, Maria Luiza Pereira, Manoel Gonçalves, Valter Garcia, Listz Simões, Miguel Guimarães, Marcelo Arcaño, Istvan Kereszy, Tamas Kereszy, John Kern, Giovanna Pedro, Caroline Comeau, Paulo Victorino, Dorottya Fuzy, Krisztian Pomazi	<b>Comparison Between DC and CD current Waveform on Aluminum Panels</b> Clement Zaepffel, Rafael Sousa Martins, Amelie J and Philippe Lalande
2:20 PM	<b>Assessing the scalar potential distribution produced by a floating leader using the Finite Element Method.</b> Tiago Luiz Pinto, João Pedro Corrêa, Raphael Floresta Magalhães, Listz Simões, Miguel Guimarães, Kamila Cristina Costa, Marco Aurélio de Oliveira Schroeder, Istvan Kereszy	<b>Study of an Atypical In-service Lightning Strike on a Commercial Jetliner</b> Aurélie Bouchard, Christelle Kutyla, Philippe Lalande, Franck Flourens
2:40 PM	<b>Upward Connecting Leader Initiation in Large-Area</b> Gilberto Teodósio, Lucas Guimarães, Gustavo Alves, Lucas Silva, Matheus Martins, Deilton Gonçalves, Tulio Carvalho, Miguel Guimarães e Listz Simões	<b>Study on lightning protection overlaps on composite parts including surfacing film</b> Alban Douyère-Dumesnil
3:00 – 3:40 PM	<b>Coffee Break &amp; Exhibition</b>	
3:40 PM		<b>Presentation by EMA- Electro Magnetic Applications</b>
4:00 PM	<b>Climate changes and its impacts on lightning phenomenon</b> Michael TROUBAT	<b>Lightweight Lightning Strike Protection of Aircraft using Coated Expanded Aluminum Foil</b> Shane Peng, Shawn Duffy, Yong Yeong, Kenneth Burt, Krishnan Chari
4:20 PM	<b>Wind Tunnel Experiments of Long Arcs in Crossflow</b>	<b>Experimental Study of Aeronautical Fasteners Subjected to Lightning Currents</b>


	Carmen Guerra-Garcia, Fayleon Lin, Nicolas Gomez-Vega, Sankarsh Rao	Rafael Sousa Martins,1, Amélie Jarnac, Clément Zaepffel and Philippe Lalande
4:40 PM	<b>New Findings about Atmospheric Electricity Build-up and Dissipation</b> Fernando Galembeck, Leandra P. Santos, Thiago A. L. Burgo, Andre Galembeck	<b>Benefits of Grating-based X-ray Phase Contrast Imaging to Characterise Lightning-Damaged CFRP</b> Amélie Jarnac, Laureen Guitard, Adrien Stolidi, Rafael Sousa Martins, Jérôme Primot and Philippe Lalande
5:30 – 9:00 PM	<p><b>Welcome Coquetel</b> HOTEL CPV - UNICAMP</p>  <p>Address</p>	



## September 10

	<b>Room 1</b> <b>Lightning Direct Effects-Composites</b>	<b>Room 3</b> <b>Lightning Zoning</b>
9:00	<b>Creeping Leader Surface Spark Discharge on Low-Conductive Natural and Artificial Objects</b> Stefan Jugelt, Christian Drebenstedt, Michael Rock	<b>Physics-based zoning of unconventional aircraft: The swept stroke phase</b> Nathanael A. Jenkins, Carmen Guerra-Garcia
9:20	<b>Analysis of Laser Parameters for Efficient Quantum Ionization in Air for HV Circuit Triggering</b>	<b>Mix &amp; Match - Introducing a Simplified Methodology for Lightning Zoning of VTOL Aircraft</b>

	Michal Sakala, Jan Mikeš, Ondrej Hanus, Marcela Efmertova, Martin Mydlar	Marina Sousa, Philippe Lalande, Johan Meuzelaar, Sonia Zehar, Marc Meyer, Matteo Tiana, Murray Marple
9:40	<b>Modelling of Lightning First Short Stroke Current Waveform by Stepped or Nonlinear Capacitance Discharges</b> Michael Rock, Stefan Jugelt, Kamila Costa, Christian Drebenstedt	<b>Zoning from physical models</b> Philippe Lalande, François Pechereau
10:00 – 10:30	<b>Coffee Break &amp; Exhibition</b>	
10:30 – 11:00	<b>Room 3</b> <b>Keynote Speaker:</b> Prof. Anderson Rocha “Harnessing the AI and Convergence Revolution to its fullest potential. “	
11:00 – 12:00	<b>Room 3</b> <b>ROUND TABLE “Roundtable on Simulation for Development and Certification”</b> Franck Flourens	
12:00 – 1:40 PM	<b>Lunch</b>	
	<b>Room 1</b> <b>Lightning Direct Effects-Composites</b>	<b>Room 3</b> <b>Lightning and Atmospheric Phenomenology and Detection</b>
1:40 PM	<b>Optimization Approach for Earth-Termination System for Large-Scale Solar Power Plant with Pre-Determined Air-Termination System</b> Eduard Shulzhenko, Kamila Costa, Michael Rock	<b>Practical Electric Field Modeling Approach to Evaluate Aircraft Initial Attachment Locations for Lightning Zoning</b> JT Millar, Megan Maguire, Cody Weber, Brock Milford
2:00 PM	<b>Development of a Grounding System Circuit Model for Transient Analysis Based on Frequency Spectrum of Lightning Current</b> Jose Luciano Aslan D’Annibale, Walter L. Manzi de Azevedo, Anderson R. Justo de Araujo, Jose Pissolato Filho	<b>Lightning Nowcast on Airports in the Amazon Region Using Machine Learning</b> Gabriel A. V. S. Ferreira, Adonis F. R. Leal, Marcio N. G. Lopes, Leonardo C. da Rocha
2:20 PM	<b>Lightning Incidents At Brest Airport : Consequences, Causes And Solutions</b> Sylvain Fauveaux	<b>A Lightning Simulation Review by Means of Antenna Theory</b> Rodrigo Rodrigues de Assis
2:40 PM	<b>Copper Based Lightning Protection: Sustainability Problems And Proposed Solutions</b> Sylvain Fauveaux, Amaury Lefort	<b>Review of an Airborne Lightning Detection System and Atmospheric Conditions During Flights in Coastal Thunderstorm Conditions</b> Zachary Milani, Leonid Nichman, Edgar Matida, Mathieu Lachapelle, Cuong Nguyen, Eric Bruning, Mengistu Wolde, Greg M. McFarquhar, Pavlos Kollias, R. Timothy Patterson
3:00 PM	<b>Impact of Grounding System Modeling on Overvoltage Waveforms for Direct Lightning Strikes</b> Wagner Costa da Silva, Walter Luiz Manzi de Azevedo, Anderson Ricardo Justo de Araujo, Jose Pissolato Filho	<b>Urban Air Mobility Operations: Evaluating Exposure to Lightning Strikes</b> Evandro F. Ledema, Kleber P. Naccarato, Marina G. Sousa

3:00 – 3:40 PM	<b>Coffee Break &amp; Exhibition</b>	
3:40 PM		<b>Hefei Hangtai Electrophysics Co.,Ltd.</b>
4:00 PM	<b>Research on Lightning Electric and Magnetic Field Effect Test.</b> Xiu XIONG, Xiaoyu FAN, Shaohua LI, Kai LIU	<b>Analysis of the Ebro Lightning Mapping Array detections of aircraft in flight producing electrical discharges</b> Eduard Martin, Joan Montanyà, Jesús A. López, Oscar van der Velde, Nicolau Pineda, D. Romero, Carlos A. Morales
4:20 PM	<b>Multi-Chamber Arrester with Impulse Arc Quenching for Protection 13.8 kV Overhead Lines</b> Georgy Podporkin, Urij Kretov, Alexander Sotnikov, Sergey Rummyantsev	<b>Evaluating Strategies for Automatically Detecting the Long Continuing Current Signatures on Electric Field Waveforms of Lightning Events Occurring in the Metropolitan Area of Belo Horizonte</b> Lucas Viegas, Gustavo Barbosa, Karine Teixeira, Matheus Vianna, Matheus Martins, Alberto Torres, Maria Luiza Pereira, Manoel Gonçalves, Valter Garcia, Listz
7:00 – 11:00 PM	<b>Gala Dinner</b> Espaço Barão  Address	



<b>September 11</b>		
9:00 – 10:00	<b>Room 3</b> <b>Course – Sadeghi MASSOUD – Staff Scientist Lightning Gulfstream Aerospace “Aircraft Fuel Tank / Systems Design, Certification and Process for Ignition Prevention”</b>	
10:00 – 10:40	<b>Coffee Break &amp; Exhibition</b>	
	<b>Room 1</b> <b>Electrostatics</b>	<b>Room 3</b> <b>Fuel Tank and Fuel Systems</b>

10:40	<b>Study on electrostatic characteristics of valve head materials in aircraft oxygen System</b> Zemin Duna, Wei Yan, Xiaoliang Si , Zhibao Li	<b>Flammable Gas Mixture Test Fixture Standardizations</b> Sofia Graham, Derek Tuck, Brian Egenriether, Philipp Boettcher
11:00	<b>Radiation Hazard of Ball Lightning</b> Mikhail L. Shmatov	<b>Benefits of Computational Electromagnetic Analysis in Aircraft Fuel System Lightning Certification</b> Massoud Sadeghi, William Coleman
11:20	<b>An End-to-End Physics-Based Modeling Approach to Precipitation Static</b> Derek Tuck, Brian Egenriether, Nitish Chandra, Kyu-Pyung Hwang	<b>Simulation of Continuous Arc with Semi-implicit Scheme and Mesh Adaptation</b> Gabriel Barreau, François Pechereau, Benjamin Khiar, Julien Vanharen, Philippe Lalande, Fabien Tholin, Guillaume Puigt, Frédéric Alauzet
11:40	<b>The numerical simulation method of charging current in electrostatic deposition environment of aircraft</b> Duan Zemin, Xiaoliang Si, Tong Chen, Shanliang Qiu, Zhang Song, Zhibao Li, Gong Hanlin, Huang Yeyuan	<b>From kerosene to hydrogen aircraft: The new lightning protection challenges</b> Bigand Audrey, Revel Ivan, Emma Roubaud, Flourens Franck
12:00 – 1:40 PM	<b>Lunch</b>	
	<b>Room 1</b> <b>Lightning and Atmospheric Phenomenology</b>	<b>Room 3</b> <b>Lightning indirect effects and modelling</b>
1:40 PM	<b>Analysis of Electrical Bonding Array Effects on the Protection of Electro-Electronic System Externally Installed on Small Composite Airframe</b> Diego Faria Amaral, José Antônio de Souza Mariano, Lollan Naru Nonaka Rodrigo Cabaleiro Cortizo Freire, Sidney Osses Nunes	<b>Numerical Modeling of Induced Transients on A/C Wiring: Use of FDTD Simulations for Falcon 6X Certification</b> F. Terrade, F. Tristant
2:00 PM	<b>Lightning Current Tests of Segmented Diverter Strips with Component</b> Felicitas Modlinger, Christian Karch, Fridolin Heidler	<b>Numerical Modeling of Induced Transients on Aircraft Wiring with a Hybrid FDTD/MTLN Approach</b> T. Strub, N. Muot, C. Girard, F. Terrade, F. Tristant, N. Bui, C. Guiffaut, A. Reineix
2:20 PM	<b>Design of a Small Field Mill Network for Cloud Modelling</b> Valter Garcia, Miguel Guimarães, Listz Araújo, Tulio Carvalho Lucas Viegas, Deilton Gomes, Marcelo Saba, Moacir Lacerda	<b>Modelling Lightning Indirect Effect on Aeronautic Systems: Validation from Improved Analytical Formalism and Numerical Simulations</b> S. Lalléchère, D. Cvetkovic, L. Pniak, Y. Corredores, V. Melchor, A. Piat, F. De Daran, P-E. Lévy, L. Pichon
2:40 PM	<b>Analysis of Lightning-Induced Effects on Small Electric Aircraft</b> Renan H. M. Callegari, José Antônio S. Mariano, Rodrigo Cabaleiro C. Freire, Ricardo A. de Araujo, José Pissolato Filho, Gabriel T. C. Francisco	<b>The Evolution of Indirect Effects Lightning Qualification Test Standards for Airborne Products: An Overview of EUROCAE ED 14 / RTCA DO-160 Section 22, Revision G to H</b> Vincent Melchor, Bertrand Chatain
3:00 – 3:30 PM	<b>Coffee Break &amp; Exhibition</b>	
		<b>Room 3</b> <b>Lightning and Atmospheric Phenomenology and Detection</b>

3:30 PM		<p><b>Material characterization for propagating brush discharge threat analysis</b>  Crislane Silva, Eduardo Ferreira, Julio Santos and Janaina Nicolo</p>
3:50 PM		<p><b>Assessing the time difference of arrival and optimization techniques to determine strike location of lightning events occurring in the metropolitan area of Belo Horizonte</b>  Karine Teixeira, Lucas Viegas, Gustavo Barbosa, Matheus Vianna, Matheus Martins, Listz Simões, Miguel Guimarães, Marcelo Arcanjo, Istvan Kereszy, Tamas Kereszy, John Kern, Giovanna Pedro, Caroline Comeau, Paulo Victorino, Dorottya Fuzy, Krisztian Pomazi</p>
4:10 PM		<p><b>A novel network for detecting long continuing currents in the metropolitan area of Belo Horizonte</b>  Miguel Guimarães, Listz Simões, Karine Teixeira, Lucas Viegas, Gustavo Barbosa, Matheus Drumond, Matheus Martins, Alberto Torres, Maria Luiza Pereira, Manoel Gonçalves, Valter Garcia, Tiago Pinto, Deilton Gomes, Túlio Carvalho, Guilherme Silva, Elias Freitas, Marcelo Arcanjo, Marcelo M. F. Saba, Paola Lauria, Istvan Kereszy, Tamas Kereszy, John Kern, Giovanna Pedro, Caroline Comeau, Paulo Victorino, Dorottya Fuzy, Krisztian Pomazi</p>
4:30 – 5:00 PM	<b>CLOSING CEREMONY</b>	



## September 12

7:30 AM – 4:30 PM

❖ **Technical Visit- Embraer (50 places)**

8:30 AM – 4:30 PM

❖ SINCROTON LABORATORY