SUNDAY, 21 June 2026

Ver May 26

18:00 – 20:00 REGISTRATION

MONDAY, 22 June 2026

8:00 REGISTRATION

9:00 WELCOME AND OPENING REMARKS

9:10 HIGH-VOLTAGE SWICHGEAR

Chair: Magne Runde

1.1	INVITED TALK: **Challenges to contact systems in SF6-free high-voltage switchgear** René Peter Paul Smeets	
1.2	**Additively Manufactured Contact Geometries as Opportunity for Future Contact Designs** David Cziumplik, Andreas Laufer, Marius Hinz, Karen Flügel, Dirk Bösche, Michael Kurrat TU Braunschweig, Braunschweig, Germany	31
1.3	**Data-Driven Identification of Equivalent Physical Parameters for Arc Quenching Performance of Gassing Materials** Weidong Cao[1], Guanyu Wang[1], Qian Wang[2], Boya Zhang[1], Xingwen Li[1] [1]Xi'an Jiaotong University, Xi'an, China, [2]Xi'an University of Technology, Xi'an, China	20

10:40 BREAK

11:10 NON-ARCING CONTACTS

Chair: Åsa Rudolphi Kassman

2.1	**Investigation of electric and magnetic field in bolted copper busbar joints** Toni Ivas[1], Philipp Scheidegger[1], Rolf Brönimann[1], Jonas Diaz[1], Jacim Jacimovic[2], Lorenz Herrmann[1] [1]EMPA, Dubendorf, Switzerland, [2]ABB Switzerland, Baden, Switzerland	92
2.2	**Investigation of Wear in High-Voltage Circuit Breaker Electrical Contacts** Vincent Niggel[1], Lorenz Herrmann[1], Andrew Fairbrother[2], Rowena Crockett[1] [1]EMPA, Zurich, Switzerland, [2]Hitachi Energy, Zurich, Switzerland	93
2.3	**Understanding of the High-Frequency Impedance Characteristics of Micro-scale Gold-plated Contact Interfaces** Yinnan Zhang[1], Chao Zhang[1,2], Yuchen Liao[1], Wanbin Ren[1] [1]School of Electrical Engineering and Automation, Harbin Institute of Technology, Harbin, China, [2]School of Instrumentation Science and Engineering, Harbin Institute of Technology, Harbin, China	66
2.4	**The performance of offshore charging contacts with and without maintenance with contact grease** Kristian Solheim Thinn, Niklas Magnusson, Erik Bjerrehorn, Olve Moen SINTEF Energi, Trondheim, Norway	10

12:30 LUNCH

13:30 VACUUM INTERRUPTERS

Chair: Kaveh Niayesh

3.1	**Current Chopping of Vacuum Interrupters with Stainless Steel Contacts** Christoph Kenel[1], Siobhan McKeown[1], Roman Mukin[1], Dietmar Gentsch[2], Julien Rault[1], [1]ABB Switzerland, Baden Dättwil, Switzerland, [2]ABB Germany, Ratingen, Germany	81
3.2	**Comparative Study on Arc Dynamics and Thermal Recovery of different CuCr Contacts for Vacuum Interrupters** Naghme Dorraki[1], Sergey Gortschacow[2], Andreas Lawall[1], Thomas Brauner[1], Frank Graskowski[1] [1]Siemens, Berlin, Germany, [2]Leibniz Institute for Plasma Science and Technology, Greifswald, Germany	69
3.3	**Multi-Parameter Investigation of Magnetron Currents in Vacuum Interrupters** Patrick Rumpelt, Philipp Hauch, Marco Thönnessen, Michael Weuffel ABB, Ratingen, Germany	68
3.4	**Effect of Laser Surface Remelting on the Electrical Performance of CuCr Electrical Contacts** Ming Yu[1], Peng Li[1], Yong Wang[1], Xiaojun Wang[1], Ning Han[1], Xiaofei Yao[2] [1]ShaanXi Sirui Advance Materials Co., Xi'an, China, [2]Xi'an Jiatong University, Xi'an, China	29
3.5	**Evaluation of Surface Temperature of Switching Contacts in Vacuum by Optical Methods** Sergey Gortschakow, Gregor Gött, Ralf Methling, Dirk Uhrlandt Leibniz institute for plasma science and technology, Greifswald, Germany	26

15:10 BREAK

15:40 ENVIRONMENTAL EFFECTS

Chair: Sophie Noël

4.1	**A framework for holistic durability assessment of wire-connector systems under vibrational load – The influence of connector arrangement and wire routings** Roman Probst, Dirk Hilmert, Frederik Kiel, Jian Song OWL University of Applied Sciences and Arts, Lemgo, Germany	14
4.2	**Effect of water content on ablative mechanism of gassing materials under arc action** Qian Wang[1], Yi Shang[1], Weidong Cao[2], Wanmeng Zhao[1], Yuxuan Liu[1], Xu Zhong[1] [1]Xi'an University of Technology, Xi'an, China, [2]Xi'an Jiaotong University, Xi'an, China	19
4.3	**Intrusion of particles in open vent hole type relays and related failure modes** Thomas Herrle[1], Dieter Volm[2] [1]Panasonic Industrial Devices Europe, Pfaffenhofen an der Ilm, Germany, [2]Panasonic Industry Europe, Ottobrunn, Germany	75
4.4	**Effects of Aging on the Mechanical Drop-Shock Performance of SAC305 Solder Interconnects** Saddam Daradkeh[1], Abdallah Alakayleh[1], Sufyan Tahat[1], Waad Tarman[1], Elizabeth Gainey[1], George Flowers[1], Sa'd Hamasha[2], Jeffrey Suhling[1] [1]Auburn University, Auburn AL, USA, [2]Binghamton University, Binghamton NY, USA	90

17:00 END OF SESSIONS

18:30 ORGAN CONCERT IN NIDAROS CATHDRAL

TUESDAY, 23 June 2026

9:00 DIAGNOSTICS AND RELIABILITY

Chair: Xingwen Li

5.1	**Part 1: Analysis of Electrode Ageing Based on Signatures of Electrical Arcs** Raul Carreira Rufato[1], Malyk Benmouffok[2], Cyril Van de Steen[1], Patrick Schweitzer[3] [1]Safran Tech, Blagnac, France, [2]IRT Saint Exupéry, Toulouse, France, [3]Institut Jean Lamour-UMR 7198, University of Lorraine, Nancy, France	41
5.2	**Part 2: Reflection and Methodology for Arc Database Signal Generation in Aircraft Systems** Malyk Benmouffok[1], Raul Carreira Rufato[2], Cyril Van de Steen[2], Patrick Schweitzer[3] [1]IRT Saint Exupéry, Toulouse, France, [2]Safran Tech, Blagnac, France, [3]Institut Jean Lamour-UMR 7198, University of Lorraine, Nancy, France	43
5.3	**Contact characteristics monitored by AI-Methods** Daniel Kupka[1], Armin Strahl[2], Thomas Zimmermann[1], Arthur Zimmermann[1] [1]Siemens, Amberg, Germany, [2]Siemens, Regensburg, Germany	15
5.4	**Diagnostic of DC Arc Plasmas in Aeronautic Conditions: Application to Arc Fault Detection** Arthur Hellé, Robert Hugon, Frédéric Brochard, Grégory Marcos Institut Jean Lamour, Nancy, France	86
5.5	**Frequency Band Importance Estimation for Arc Faults via Multi-Branch Neural Networks** Abdelhak Maoukouf, Patrick Schweitzer Institut Jean Lamour - Université de Lorraine, Nancy, France	60

10:40 BREAK

11:10 ARCING CONTACTS

Chair: Timo Muetzel

6.1	**Image Processing–Based Quantification of Contact Microstructure for Erosion Assessment in High Voltage Gas Circuit Breakers** Milad Mohammadhosein[1], Kaveh Niayesh[2] [1]University of Tehran, Tehran, Iran, [2]Norwegian University of Science and Technology, Trondheim, Norway	48
6.2	**Electrical Performance Study of AgSnO2In2O3 Materials with Different Preparation Processes under High Current Surge Conditions** Yibo You, Yangfang Chen, Dai Wan, Xiaofang Yan, Qinghong Wei, Zhenyang Song Fuda Alloy Materials Co., Zhejiang, China	12
6.3	**Contact material testing - modern model switch methods** Armin Strahl[1], Daniel Kupka[2], Andreas Kammerl[1], Marina Logvinova[2] [1]Siemens, Regensburg, Germany, [2]Siemens, Amberg, Germany	16
6.4	**The current transfer to a copper cathode in low-voltage, low-current arcs of short length** Margarita Baeva[1], Jonas K. C. Ballentin[2], Dirk Uhrlandt[1,2] [1]Leibniz Institute for Plasma Science and Technology, Greifswald, Germany, [2]Institute of Electrical Power Engineering, University of Rostock, Rostock, Germany	7

12:30 LUNCH

13:30 SUSTAINABILITY

Chair: Makoto Hasegawa

7.1	INVITED TALK: **Engineering Sustainability: From Commitment to Competitive Advantage** John Marsh TE Connectivity	
7.2	**Pathway to Sustainability in Connector Development: Influence of material and design changes** Isabell Buresch TE Connectivity, Wört, Germany	40
7.3	**Sustainable Contact Materials: Comparison between Different Contact Materials for MV Switchgears regarding their Resistance and CO2 Equivalent** Nils Wilm Rosebrock, Michael Kurrat Technical University Braunschweig, Germany	77

14:50 BREAK

15:20 FUNDAMENTALS

Chair: Christian Kroepfl

8.1	**Geometric Influence on Repulsion Forces in Butt Contacts** Sergey Perekopskiy TE Connectivity, Berlin, Germany	9
8.2	**An integrated BEM-FEM simulation framework for the calculation of constriction resistances between rough surfaces** Robert Scherr, Thomas Wielsch Weidmüller Group, Detmold, Germany	54
8.3	**Setup for electrical and mechanical characterization of copper junctions at the microscale** Jonas Diaz[1], Toni Ivas[2], Rafael Philipona[3], Philipp Scheidegger[4], Rolf Brönnimann[4], Jacim Jacimovic[5], Johann Michler[1], Lorenz Herrmann[6] [1]Laboratory for Mechanics of Materials and Nanostructures, Empa Swiss Federal Laboratories for Materials Science and Technology, Thun, Switzerland, [2]Laboratory for Advanced Materials Processing, Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland, [3]School of Biomedical and Precision Engineering, University of Bern, Bern, Switzerland, [4]Laboratory for Transport at Nanoscale Interfaces, Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland, [5]ABB Motion Services, Turgi, Switzerland, [6]Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland	91
8.4	**Mass transfer from a molten bridge to separating electrodes** Paul G Slade[1], Roland S Timsit[2] [1]Consultant, Itaca, United States, [2]Timron Scientific Consulting, Toronto, Canada	38
8.5	**Influence of contact geometry and interfacial force on contact behaviour: Combined theoretical and simulation validation** Akshata Sangle[1], Stefan Goetz[1], Florian Bruhn[2] [1]Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany, [2]iwis smart connect, Rieden am Forggensee, Germany	28

17:00 END OF SESSIONS

WEDNESDAY, 24 June 2026

9:00 COATED CONTACTS

Chair: Peter Jaeger

9.1	**Contacting of Copper Clad Aluminum Hairpins for Electric Drives using Laser Welding** Felix Wirthmann, Marcel Baader, Tobias Zürrlein, Fabian Giesbert, Thorsten Ihne, Florian Risch Institute for Factory Automation and Production Systems, Friedrich-Alexander-University Erlangen-Nuremberg, Nuremberg, Germany	23
9.2	**Effect of Ag/TiO_2 Nanoparticles on the Electrical Performance and Durability of Silver Coatings for Electrical Contacts** Alsayed Abdel Aal, Michael Blauth, Jian Song Ostwestfalen-Lippe University of Applied Sciences and Arts, Lemgo, Germany	17
9.3	**Advanced Silver Coatings for Connector Applications in E-Mobility** Sönke Sachs[1], Isabell Buresch[2] [1]TE Connectivity, Bensheim, Germany, [2]TE Connectivity, Wört, Germany	39
9.4	**Tribological and electrical properties of electrodeposited tin zinc coatings** Aurore Brézard Oudot, Sophie Noël, Julien Acquadro, Thierry Leblanc, Philippe Testé, Frédéric Houzé Centralesupelec, Gif sur Yvette, France	76
9.5	**Silver reduction through high-performance composite technologies and non-precious metal sub-layers** Timo Mützel, Havva Cinaroglu Doduco Contacts & Refining, Pforzheim, Germany	27

10:40 BREAK

11:10 ELECTRIC ARCS

Chair: Rod Martens

10.1	**Simulation of the Electrical Arc Motion between Busbar Electrodes** Camille Gouze[1], Yann Cressault[1] Flavien Valensi[1], Malyk Benmouffok[2], Michael Darques[2], Cyril Van de Steen[3] [1]Université de Toulouse, Toulouse, France, [2]IRT Saint Exupery, Toulouse, France, [3]Safran group, Toulouse, France	21
10.2	**Big-Data-Driven Screening and Optimization Design of Gassing Materials (PAs) for DC Circuit Breakers** Qian Wang[1], Yuxuan Liu[1], Weidong Cao[2], Xinzgan Chen[1], Yi Shang[1], Xu Zhong[1] [1]Xi'an University of Technology, Xi'an, China, [2]Xi'an Jiaotong University, Xi'an, China	33
10.3	**Investigation of dynamic microarcs in air complementing a unified nonequilibrium model** Jonas Karl Christian Ballentin[1], Margareta Baeva[2], Dirk Uhrlandt[1,2] [1]Institute for Electrical Power Engineering, University Rostock, Rostock, Germany, [2]Leibnitz Institute for Plasma Science and Technology, Felix-Hausdorff-Str. 2, Greifswald, Germany	22
10.4	**Comparison of numerical solving for electric arc modelling** Cyril Van De Steen[1], Camille Gouze[2,3], Malyk Benmouffok[3], Yann Cressault[2] [1]Safran Tech, Toulouse, France, [2]Laboratoire plasma et conversion d'énergie, Toulouse, France, [3]IRT Saint Exupéry, Toulouse, France	42

12:30 LUNCH

13:30 SPECIAL APPLICATIONS

Chair: Werner Johler

11.1	**Advanced Contact Materials for Hot-Switching MEMS Relay Applications** Dipl.-Ing. Martin Köhne Robert Bosch, Renningen, Germany	9
11.2	**Characterisation of Pt/PEDOT/Si Layered Structures for MEMS Contacts** Nasser Aldhahri[1], Yoshishige Tsuchiya[1], Tomoyuki Kurioka[2], Punvinai Vinaisuratern[2], Joji Higuchi[2], Tso-Fu Mark Chang[2], Masato Sone[2], Liam Boodhoo[1], Thomas Bull[3], Yan Yang[4], John W. McBride[3,4] [1]School of Electronics and Computer Science, University of Southampton, United Kingdom, [2]Institute of Integrated Research, Institute of Science Tokyo, Japan, [3]School of Engineering, University of Southampton, United Kingdom, [4]TaiCaan Technologies, Southampton, United Kingdom	54
11.3	**Mating Cycle Component-Level Testing for E-Mobility: Mating Force, Micro-Ohm Contact Resistance, and Wear** Felix Greiner, Soenke Sachs, Frank Ostendorf TE Connectivity, Bensheim, Germany	91
11.4	**Innovative Stamped Terminals plated with Reel-to-Reel Silver Graphite for Automotive Connectors** Maxime Porte, Rene Lehmann APTIV, Nuremberg, Germany	38

14:50 BREAK

15:20 DYNAMIC PHENOMENA

Chair: Thomas Schoepf

12.1	**Investigation of contact dynamic welding mechanisms of silver tin-oxide based on the evolution of eroded surface morphology** Chao Zhang, Guoliang Chen, Yubin He, Wanbin Ren Harbin Institute of Technology, Harbin, China	71
12.2	**Experimental verification on forming carbon films onto the friction surface of contact wires when using metalized carbon contact strips** Kento Mitani, Yoshitaka Kubota, Fumiko Morimoto Railway Technical Research Institute, Hikari-cho, Kokubunji-shi, Japan	47
12.3	**Influence of current waveform on km/s range electric sliding contact in the context of electromagnetic launchers** Vincent Andraud, Paul Gapenne, Quentin Hassler, Philippe Baumann, David Bluntzer, Markus Schneider ISL, Saint-Louis, France	83

16:20 END OF SESSIONS

17:30 ARCHBISHOP'S PALACE MUSEUM OPENS

19:00 CONFERENCE DINNER AT THE ARCHBISHOP'S PALACE

THURSDAY, 25 June 2026

9:00 DC SWITCHING

Chair: John McBride

13.1	**Enhancing the Interrupting Capability of Low-voltage DC Hybrid Circuit Breakers** Caizhi Gao[1], Zhaozi Zhang[1], Silei Chen[2], Xingwen Li[1], Yinfang Huang[3] [1]State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, Xi'an, China, [2]School of Electrical Engineering, Xi'an University of Technology, Xi'an, China, [3]Shanghai Liangxin Electrical Co., Pudong, China	30
13.2	**Post-arc erosion of metal surfaces** Pierre Corfdir, Luca Sulmoni, Christoph Kenel, Patrick Sütterlin ABB Corporate Research, Baden-Dättwil, Switzerland	6
13.3	**Experimental Characterization of DC Fault Arcs and Comparative Analysis with AC Fault Arcs** Frederik Mingers, Verena West, Willem Leterme RWTH Aachen University, Aachen, Germany	24
13.4	**Break arc behaviors of Ag, AgSnO2, AgNi and AgZnO in inductive DC loads up to 20V/20A under magnetic field application** Makoto Hasegawa, Reo Oikawa, Haruto Oiwa, Yuna Onishi Chitose Institute of Science and Technology, Chitose, Japan	61
13.5	**Determination of post-arc conductance by hybrid switching of low voltage DC currents** Diego Gonzalez[1], Luz Gonzalez[2] [1]Leibniz-INP, Greifswald, Germany, [2]Ludwig-Jahn Gymnasium, Greifswald, Germany	34

10:40 BREAK

11:10 NON-ARCING CONTACTS

Chair: Magne Runde

14.1	**LPBF-based, additively manufactured contact ring segments for closed-form coil stators** Alexander Vogel, Felix Wirthmann, Muhammed Kilic, Thorsten Ihne, Jörg Franke, Florian Risch Institute for Factory Automation and Production Systems - Friedrich-Alexander-University Erlangen-Nuremberg, Germany	37
14.2	**Separable connection of prismatic batteries** Tag Hammam[1], Peter Andersson[1], Lars Gunnarsson[2], Therese Källgren[3] [1]Swerim, Kista, Sweden, [2]Scania CV, Södertälje, Sweden, [3]Traton, Södertälje, Sweden	18
14.3	**Evaluation of current-carrying capacity of silver-based oxide contact pairs** Chang Sun[1], Chao Zhang[1], Yinnan Zhang[1], Wanbin Ren[1], Yinghua Fu[2] [1]Harbin Institute of Technology, Harbin, China, [2]Nanchang Chixi Technology Company, Nanchang, China	80
14.4	**The Role of Mechanical Stress in Electrical Contact Elements during Short-Circuits** Toni Israel[1], Tom Kufner[1], Philipp Strehler[1], Julian Angel Czajor[1], Michelle Pomsel[2], Christian Hildmann[2], Stephan Schlegel[2] [1]Stäubli Electrical Connectors, Allschwil, Switzerland, [2]Dresden University of Technology, Dresden, Germany	32

12:25 CLOSING REMARKS

12:30 LUNCH