



Technical Sessions Tuesday March 20, 2018		
8:10AM - 8:20AM	Welcome Message	
8:20AM - 9:20AM	Keynote Thermal Challenges and Industry Trends of Consumer Electronic Devices Dr. Andre Ali, Google	
Tuesday 9:20 to 9:40 Networking Break		
Parallel Sessions		
	Session: 2.5D and 3D Electronics Chair: Jesse Galloway Jesse.Galloway@amkor.com	Session: Two Phase Cooling/Liquid Cooling Chair: Pablo Hidalgo Pablo.Hidalgo@aavid.com
9:40AM – 10:00AM	Application of Thermal Network Approach to Electrical-Thermal Co-simulation and Chip-Package-Board Extraction Author: Fengyun Zhao, Huawei Technologies	Eulerian Multiphase Conjugate Model for Embedded Two-Phase Liquid Cooled Microprocessor Author: Pritish Ranjan Parida, IBM Research
10:00AM – 10:20AM	Investigations of Low Temperature Co-fired Ceramic Heat Spreading Interposer for the Thermal Management of 3D Packages Author: Si Huang, University of Arkansas	Recent Advances in Oscillating Heat Pipes for Passive Electronics Thermal Management Authors: Joe Boswell and Dr. Bruce Drolen, ThermAvant Technologies, LLC
10:20AM – 10:40AM	Delphi-like Compact Thermal Models using Model Order Reduction Author: Eric Monier-Vinard, Thales Global Services	Experimental Investigation of Direct Liquid Cooling of a Two-Die Package Author: Bharath Ramakrishnan
10:40AM – 11:00AM	Multi-Die Packaging and Thermal Super-Position Modeling Author: Jesse Galloway, Amkor Technology, Qualcomm Datacenter Technologies, Inc.	Evaluation of Pulsating Heat Pipes for Outdoor Telecom Equipment Author: Chien-Hung Sun, Celsia Inc

Tuesday 11:00 to 11:20 Networking Break		
	Session: Concurrent Design/LED Chair: Ross Wilcoxon ross.wilcoxon@rockwellcollins.com	Session: Consumer Electronics Chair: Bill Maltz wmaltz@ecooling.com
11:20AM – 11:40PM	Promising Potential of Natural Graphite Sheet Heat Sinks: Thermal, EMI/EMC, Reliability, Cost, Manufacturing and Sustainability Perspectives Author: Martin Cermak, Simon Fraser University	Use of High Conductivity Spreaders on the Back of Single-Sided PCB to Enhance Heat Transfer and Thermal Capacitance in Electronics Systems Author: Dr. Sankarananda Basak, Intel Corporation
11:40AM – 12:00PM	Different Questions of Today's LED Thermal Testing Procedures Author: András Poppe, Mentor, a Siemens Business	Performance and Reliability of a 5G Smartphone RF-Antenna System: Influence of Temperature Field Author: Mehdi Abarham, Ansys
12:00PM – 12:20PM	Numerical and Experimental Feasibility Study of Vapor Chambers for LED Applications Author: Martin Genevieve, Philips Lighting	An Early System-level Thermal Analysis Methodology for Advanced Electronic Subsystems Author: Karthik Srinivasan, ANSYS
12:20PM – 12:40PM		Package Thermal Challenges Due to Changing Mobile System Form Factors Author: Cameron Nelson, Amkor Technology

Technical Sessions Wednesday March 21, 2018	
8:10AM – 8:20AM	Welcome Message
	Session: Simulation Chair: Robin Bornoff Robin_Bornoff@mentor.com
8:20AM – 8:40AM	Developing an Empirical Correlation for the Thermal Spreading Resistance of a Heat Sink Author: Nicole Okamoto, San Jose State University
8:40AM – 9:00AM	Automated Structure Function Object Mapping Author: Byron Blackmore, Mentor Graphics
9:00AM – 9:20AM	Comparison of Junction Temperature Prediction Methods through Analysis of Isolated 1-D Thermal Resistance Model Variables of an Application Utilizing Forced Convection of Heat Sinks Author: Nicholas Adam Klitzke, Mayo Clinic - SPPDG
9:20AM – 9:40AM	Power Map Modeling in Integrated Circuits and Power Devices using ESI Presto Author: Swati Saxena, ESI Group

Wednesday 9:40 to 10:00 Networking Break		
10:00AM – 11:00AM	Embedded Tutorial Selecting Adhesives and Thermally-Conductive Adhesives for Electronics Systems Tom Rogers of Polyonics and Dave Saums of DS&A	
Wednesday 11:00AM to 11:20AM Networking Break		
Parallel Sessions		
	Session: Data Center and Heat Sinks Chair: Marcelo del Valle marcelo.del.valle@intel.com	Session: Measurement Techniques Chair: Kazuaki Yazawa kyazawa@purdue.edu
11:20AM – 11:40AM	Dynamic Rack Power Provision to Optimize Rack Power Performance Author: Song Chuan, Intel Asia-Pacific Research & Development Ltd.	Using SMT Chip Resistors Beyond Their Rated Thermal Specification Author: Jeevan Kanesalingam, Multimedia University
11:40AM – 12:00PM	Quantifying Data Center Performance Author: Kouros Nemat, Future Facilities	Temperature Dependence of the Thermoreflectance Coefficient of Gold using a Phase-Locked Single-Point Measurement Approach Author: Assaad El Helou, Southern Methodist University
12:00PM – 12:20PM	Comparison of the Steady-state Thermocouple and Transient Thermal Methods for Heat Sink Characterization Author: Martin Cermak, Simon Fraser University	Submicron Local and Time-dependent Thermal Resistance Characterization of GaN HEMTs Author: Kazuaki Yazawa, Microsanj
12:20PM – 12:40PM	A Machine-Learning-Modeling based Dynamical Load Distribution Methodology and Engineering Practice with Multi-chiller System in Data Center Author:	Developing A Steady-State Theta _{jc} Testing Standard For Electronic Packages Author: Jesse Galloway Amkor Technology, Qualcomm Datacenter Technologies, Inc.

Technical Sessions Thursday March 22, 2018	
8:10AM – 8:20AM	Welcome Message
8:20AM – 9:20AM	Thermi Presentation

Thursday 9:20 to 9:40 Networking Break		
	Session Thermal Interfaces Chair: Gene Pruss Gene.Pruss@lairdtech.com	
9:40AM – 10:00AM	Thermal Resistance of Electrical Insulation for Bolted and Clamped Discrete Power Devices Author: Majid Bahrami, Simon Fraser University Authors: Eric Lau and Chris Botting, Delta-Q Technologies Corp Mikel Garcia-Poulin (Presenter)	
10:00AM – 10:20AM	Using Electrical Capacitance and Mechanically Representative Hardware to Evaluate the Thermal Mechanical Stability of Thermal Interface Materials Author: Michael A. Gaynes, Universal Instruments, Inc	
10:20AM – 10:40AM	Investigation of Pressure Dependence of Interface Thermal Resistance in Thermal Greases by Transient Thermoreflectance Author: Mihai G. Burzo, University of Michigan-Flint	
10:40AM – 11:00AM	In-Plane Thermal Diffusivity Measurement of Highly Thermal Conductive Thin Films by the Flash Method Author: Heng Wang, TA Instruments-Waters LLC National Chiao Tung University	
Thursday 11:20AM to 12:20AM Networking Break		
Parallel Sessions		
	Session: Air Mover Technologies with Low Acoustics Chair: David Nelson david@nelsonacoustical.com	Session: Automotive / Aerospace / Outdoor Chair: Dr. Shailesh Joshi shailesh.joshi@toyota.com
11:20AM – 11:40AM	In Search of a Quiet Fan Author: David Nelson, Nelson Acoustics	An Electro-Thermal Performance Analysis of SiC MOSFET vs Si IGBT Automotive Traction Inverters Under Various Drive Cycles Author: Asantha E Kempitiya, Infineon Technologies Americas Corp.
11:40AM – 12:00PM	NASA ISS Portable Fan Assembly Acoustics Author: Andrew J. Boone, MEI Technologies, Inc.	Design for an Automotive Audio Amplifier Author: Robin Bornoff, Mentor - A Siemens Business
12:00PM – 12:20PM	Design and Optimization of Contra-Rotating Fans Author: Ralph-Peter Mueller, CFturbo Inc	Light-Weight and High-Performance Air-Cooled Heat Sinks Author: Mohammad Reza Shaeri, Advanced Cooling Technologies, Inc.