

Technical Sessions Tuesday March 19, 2019		
8:00AM - 8:10AM	Welcome Message General Chair, Adriana Rangel, Cisco	
	Session 1: LED Chair: Jim Petroski, Mentor	
8:10AM - 8:30AM	A Methodology to Determine the Sites of Variability in an LED Assembly <i>Robin Bornoff, Mentor - A Siemens Business</i>	
8:30AM - 8:50AM	Accurate Thermal Transient Measurements Interpretation of Monochromatic LEDs <i>Anton Alexeev, Eindhoven University of Technology</i>	
8:50AM - 9:10AM	Implementation of a Multi-domain LED Model and its Application for Optimized LED Luminaire Design <i>Andr�s Poppe, Mentor - A Siemens Business</i>	
9:10AM - 10:10AM	Keynote - Tom Dolbear Senior Director, AMD Radeon Technology Group	
Tuesday 10:10AM to 10:30AM Networking Break		
	Session 2: Two-Phase Cooling Chairs: George Meyer and Sobo Sun, Celsia Inc.	Session 3: Thermal Interface Materials Chair: Jason Strader, Laird
10:30AM – 10:50AM	Assessment of Critical Heat Flux on Finite Size Surfaces Under Pool Boiling <i>Julia Reed, University of California, Los Angeles</i>	Mechanical Cycling Reliability Testing for Thermal Interface Materials for Semiconductor Test Requirements <i>Dave Saums, DS&A LLC</i>
10:50AM – 11:10AM	Molecular Dynamic Simulation of Evaporative Heat Transfer on Graphene Coated Silicon Substrate for Electronics Cooling <i>Binjian Ma, Washington University in St. Louis</i>	Liquid Metal Innovations for High Performance TIMs <i>Timothy Jensen, Indium Corporation</i>
11:10AM – 11:30AM	Experimental and Numerical Investigation of Microdroplets Evaporation on Porous Pillar Structures <i>Li Shan, Washington University in St. Louis</i>	High Performance Lightweight Ceramic Material for Thermal Management in Electronic Devices <i>Bei Xiang, Momentive</i>
11:30AM – 11:50AM	Heat Pumps to Upgrade Data Center Waste Heat: Integration with 2-Phase Cooling <i>Steven Schon, QuantaCool</i>	Preventing Delamination Failure from Thermal Cycling of Model Thermal Interface Materials <i>Hyungyung Jo, Purdue University</i>

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11:50AM – 12:10PM	Liquid Cooling Numerical Investigation of Hotspot Removal using Metal Foam Heat Sink with Pin Fins Insert <i>Yogendra Joshi, Georgia Institute of Technology</i>	Thermal Diffusivity Characterization of Thick Graphite Foils <i>Rick Beyerle, NeoGraf Solutions</i>
12:40PM – 2:00PM	Luncheon Speaker “The Future of Innovation - Fusing Art and Technology” <i>Domhnaill Hernon, Head of Experiments in Arts and Technology at Nokia Bell Labs</i>	
1:30PM – 6:00PM	Exhibit Hall Open	
2:00PM – 4:00PM	Vendor Workshops	
4:00PM – 4:45PM	Product Teardown Session “Alternative Thermal Solution for a Wireless Home Router” Justin Dixon Electronic Cooling Solutions, Inc.	
6:00PM – 7:15PM	Dinner	
7:30PM – 9:00PM	Evening Tutorial – “Breaking Through the Barriers of Thermal Design with AI” <i>Lieven Vervecken, CEO at Diabatix</i>	

Technical Sessions Wednesday March 20, 2019	
8:00AM – 8:10AM	Welcome Message Program Chair, Pablo Hidalgo, Aavid Thermal Division of Boyd. Corp.
8:10AM - 9:10AM	THERMI AWARD Reflections on a Journey of Developing Means to Characterize Hot Spots in Cool Chips <i>Dr. Peter Raad, Southern Methodist University</i>
	Session 4: Automotive / Aerospace / Outdoor Chair: Hussamedine Kabbani, Facebook
9:10AM – 9:30AM	The Impact of Anodization on the Thermal Performance of Passively Cooled Electronic Enclosures Made of Die-cast Aluminum <i>Zhongchen Zhang, Simon Fraser University</i>
9:30AM – 9:50AM	Development of a 3D Printed Loop Heat Pipe <i>Nathan Van Velson, Advanced Cooling Technologies</i>
9:50AM – 10:10AM	Measurement of Thermal Resistance of Thermal Interface Materials with High In-plane Thermal Conductivity Using Transient Thermal Based Structure Function Analysis <i>Aloysius Davin Oetomo, Carbice Corp.</i>
Wednesday 10:10AM – 10:30AM Networking Break	

	Session 5: CFD / Numerical Modeling Chair: Taravat Khadivi, Qualcomm	Session 6 Two-Phase Cooling Chair: Pritish Parida, IBM
10:30AM – 10:50AM	Design using Multi-Scale, Multi-Physics Analyses and Shape Optimization, for Compact Heat Transfer Devices <i>Daniel Bacellar, Optimized Thermal Systems, Inc.</i>	CTE Matching Heat Pipe Thermal Ground Plane <i>Mark North, Aavid Thermal Division of Boyd</i>
10:50AM – 11:10AM	Research on Package Thermal Resistance of Power Semiconductor Devices <i>Koji Nishi, Ashikaga University</i>	An Ultra-Thin Loop Heat Pipe with Long Distance Heat Transport for Cooling of Small Electronic Devices <i>Shuto Tomita, Nagoya University</i>
11:10AM – 11:30AM	The Necessity for Thermal-Electrical Multiphysics for Board Heating in a Server Rack Unit <i>Jared Harvest, ANSYS, Inc.</i>	Evaluation of the Performance of Various Heat Pipe Mounting Methods with Various Thickness TIM's and Mounting Pressures <i>George A Meyer IV, Celsia Inc.</i>
11:30AM – 11:50AM	Temperature Profile of High Power Density (HPD) ASIC Device Mounted on Multi-layered Diamond Enhanced Heat Spreader <i>Firooz N. Faili, Element Six Technologies</i>	Relative Performance of Two-Phase vs Solid Conductive Heat Spreaders for High Heat Flux Applications <i>Joe Boswell, Thermavant Technologies</i>
11:50AM – 12:10PM	Practical Evaluation of Thermally Conductive Plastics and Guidelines for Use <i>Dave Saums, DS&A, LLC</i>	The Impact of Heat Rejection Architecture on the Thermal Performance of a Pumped Two Phase Cooling System <i>Timothy A. Shedd, Florida Polytechnic University</i>
12:10PM – 12:30PM	Optimization of an Array of Heat Sinks to Maximize Reliability <i>Georgios Karamanis, Transport Phenomena Technologies, LLC</i>	
12:40PM – 2:00PM	Luncheon Speaker "The Origins of Silicon Valley: Why and How It Happened Here" <i>Paul Wesling, IEEE Life Fellow</i>	
1:30PM– 6:30 PM	Exhibit Hall Open	
2:00PM – 5:00PM	Vendor Workshops	
5:00PM – 6:00PM	Exhibitor Reception	
6:15PM – 8:15AM	How-to Courses	



Technical Sessions Thursday March 21, 2019	
8:00AM – 8:10AM	Welcome Message Program Chair, Pablo Hidalgo, Aavid Thermacore Division of Boyd, Corp.
	Session 7: Consumer Electronics Chairs: Mark Carbone, Intel and Angel Han, Huawei
8:10AM – 8:30AM	Analysis of Temperature Changes Dependency on Natural Frequency of MEMS Vibrating Gyroscope <i>Jacek Nazdrowicz, Lodz University of Technology</i>
8:30AM – 8:50AM	Battery Discharge Capacity Calculation by Temperature Measurement <i>Jeevan Kanesalingam, Motorola Solutions</i>
8:50AM – 9:10AM	Exploring Heatpipe Configurations for Package On Package (PoP) Cooling <i>Sankarananda Basak, Intel</i>
9:10AM – 10:10AM	Embedded Tutorial Modeling Two-phase Heat Transfer Systems, Pumped and Passive Designs <i>Prithish Parida, IBM and George Meyer & Sobo Sun, Celsia</i>
Thursday 10:10AM to 10:30AM Networking Break	
	Session 8: Data Center Cooling Chair: Marcelo del Valle, Intel
10:30AM – 10:50AM	Simulation-Based Optimization of Data Center Cooling Performance Using Performance Indicators <i>Kourosh Nemati, Future Facilities</i>
10:50AM – 11:10AM	Transient Analysis Overshoot in Temperature for High Power Thermal Solutions <i>Javier Avalos, Intel</i>
11:10AM – 11:30AM	Airflow Management Using Active Air Dampers in Presence of a Dynamic Workload in Data Centers <i>Sadegh Khalili, Binghamton University</i>
11:30AM – 12:10PM	Thermal Hall of Fame, Lifetime Achievement Award Presentation <i>Dr. Márta RENCZ</i> <i>Budapest University of Technology and Economics</i>
12:30PM – 2:00PM	Awards Luncheon