

HOT 15 CHIPS

HOT Chips 15

A Symposium on High-Performance Chips
August 17-19, 2003, Memorial Auditorium,
Stanford University, Palo Alto, California

ADVANCE PROGRAM

Hot Chips 15 brings together designers and architects of high-performance chips, software, and systems. Presentations focus on up-to-the-minute real developments. This symposium is the primary forum for engineers and researchers to highlight their leading-edge designs. Three full days of tutorials and technical sessions will keep you on top of the industry.

Sunday August 17	<p><i>Morning Tutorial</i> Subhasish Mitra Intel Test and Reliability: Challenges for Robust System Design</p>	<p>Organizing Committee Chair Siamak Arya Telairity Vice Chair Bob Lashley Sun Finance Angela Lee HP Publicity Susan Cain Cain Communications Gail Sachs Telairity Advertising Allen Baum Intel Sponsorship Amr Zaky Publications Linda McAllister Registration Stephan Mueller Sun Nicholas Blasgen Local Arrangements Yusuf Abdulghani Apple Bob Lashley Sun Ranganathan Sudhakar AMD Fred Zeise GoQuiet Webmaster Liz Rogers Liz Rogers Design At Large Don Alpert Camelback Arch. Lily Jow HP Carey Kornfeld Kornfeld Design Slava Mach SCVCS Chair John Mashey Sensei Partners Howard Sachs Telairity Alan Jay Smith UC Berkeley Bob Stewart SRE</p>
	<p><i>Afternoon Tutorial</i> Christof Paar Ruhr-Universitaet Bochum Past and Future of Cryptographic Engineering</p>	
Monday August 18	<p><i>Supercomputing</i> <ul style="list-style-type: none"> • Red Storm: A 10,000 node system with reliable, high bandwidth, low latency interconnect Cray • Quadrics QsNet II :A Network for Supercomputing Applications Los Alamos • Sub-lithographic Semiconductor Computing Systems Caltech <p>Keynote: <i>Tadashi Watanabe</i> <ul style="list-style-type: none"> • The Whole Earth Simulator: World's Fastest Supercomputer NEC </p> <p><i>Embedded</i> <ul style="list-style-type: none"> • A Multithreaded RISC/DSP Proc. w/ High Speed Interconnect Infineon • Intelligent Energy Mgmt: an SoC Design based on ARM926EJ-S ARM </p> <p><i>Application Specific Chips</i> <ul style="list-style-type: none"> • RAMP-IV: A Low-Power /High-Performance 2D/3D Graphics Accelerator for Mobile Multimedia Applications. KAIST • LEHK-3C Display Controller with Image Warping Liesegang GmbH • ReX: A dNTSC Receiver System on Chip Dotcast </p> <p><i>Wireless</i> <ul style="list-style-type: none"> • The Architecture of the Intel® PXA800F Cellular Processor Intel • BCM2132: GSM/GPRS Handset Baseband w/ EDGE & Media Functions Broadcom • Broadcom WLAN chipset for 802.11 a/b/g Broadcom • A UMTS Baseband Receiver Chip for Infrastructure Applications TI </p> <p>Panel: <i>Moderator: Nick Tredennick</i> <ul style="list-style-type: none"> • Disasters I Have Been Involved With </p> </p>	<p>Program Committee Program Co-Chairs Pradeep Dubey Intel Mike Flynn Stanford Program Committee Forest Baskett NEA Allen Baum Intel John Crawford Intel Keith Diefendorff MIPS Henry Moreton NVIDIA Tadao Nakamura Tohoku Univ. Howard Sachs Telairity John Sell AMD Alan Jay Smith UC Berkeley Marc Tremblay Sun John Wawrzynek UC Berkeley</p>
	<p><i>Switching and Routing</i> <ul style="list-style-type: none"> • A Single Chip Shared Mem Switch w/ Twelve 10Gb Ethernet Ports Fujitsu • Terabit Crossbar Switch Core for Multi-Clock-Domain SoCs Fulcrum • Adaptive Packet Processor Procket </p> <p><i>Security</i> <ul style="list-style-type: none"> • Multi-Gigabit SSL & TLS Record Layer Protocol Processor and Multi-Gigabit IPsec Processor Broadcom • Continuum Security Processor: Micro-Architecture Overview NetContinuum • Nitrox-II™ Inline Security Processor Cavium </p> <p>Keynote: <i>Robert F. Leheny, Director - Microsystems Technology Office</i> <ul style="list-style-type: none"> • Perspectives on the Future of Microelectronics for Military Systems DARPA </p> <p><i>Potpourri</i> <ul style="list-style-type: none"> • UbiCom MASI - Wireless Network Processor UbiCom • A 10 Gbps Ethernet TCP/IP Processor Intel • Janus: A Gigaflop VLIW+RISC SoC Tile Atmel </p> <p><i>Processors</i> <ul style="list-style-type: none"> • An Embedded 600Mhz Synthesized Processor Telairity • POWER5: IBM's Next Generation POWER Microprocessor IBM • Ultrasparc Gemini: Dual CPU Processor Sun • Two New 130nm Itanium 2 Processors for 2003 Intel </p>	
Tuesday August 19	<p><i>Switching and Routing</i> <ul style="list-style-type: none"> • A Single Chip Shared Mem Switch w/ Twelve 10Gb Ethernet Ports Fujitsu • Terabit Crossbar Switch Core for Multi-Clock-Domain SoCs Fulcrum • Adaptive Packet Processor Procket </p> <p><i>Security</i> <ul style="list-style-type: none"> • Multi-Gigabit SSL & TLS Record Layer Protocol Processor and Multi-Gigabit IPsec Processor Broadcom • Continuum Security Processor: Micro-Architecture Overview NetContinuum • Nitrox-II™ Inline Security Processor Cavium </p> <p>Keynote: <i>Robert F. Leheny, Director - Microsystems Technology Office</i> <ul style="list-style-type: none"> • Perspectives on the Future of Microelectronics for Military Systems DARPA </p> <p><i>Potpourri</i> <ul style="list-style-type: none"> • UbiCom MASI - Wireless Network Processor UbiCom • A 10 Gbps Ethernet TCP/IP Processor Intel • Janus: A Gigaflop VLIW+RISC SoC Tile Atmel </p> <p><i>Processors</i> <ul style="list-style-type: none"> • An Embedded 600Mhz Synthesized Processor Telairity • POWER5: IBM's Next Generation POWER Microprocessor IBM • Ultrasparc Gemini: Dual CPU Processor Sun • Two New 130nm Itanium 2 Processors for 2003 Intel </p>	<p>Program Committee Program Co-Chairs Pradeep Dubey Intel Mike Flynn Stanford Program Committee Forest Baskett NEA Allen Baum Intel John Crawford Intel Keith Diefendorff MIPS Henry Moreton NVIDIA Tadao Nakamura Tohoku Univ. Howard Sachs Telairity John Sell AMD Alan Jay Smith UC Berkeley Marc Tremblay Sun John Wawrzynek UC Berkeley</p>
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This is a preliminary program; changes may occur. For the most up-to-the-minute details on presentations and schedules, and for registration information, please visit our web site where you can also check out HOT Interconnects 11 (another HOT Symposium being held following HOTChips 15):
 Web: <http://www.hotchips.org>
 Web: <http://www.hot.org> Email: info@hotchips.org

