

IEEE MICRO 2007 ANNUAL INDEX, VOL. 27

AUTHOR INDEX

A

- Abhishek Tiwari**, *see* Smruti Sarangi, Jan.-Feb. 2007, pp. 12-25.
- Agarwal, Anant**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- Agrawal, Banit**, *see* Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
- Aguayo, Estanislao**, *see* González, Ivan, July-Aug. 2007, pp. 49-57.
- Ainsworth, Thomas William**, and Timothy Mark Pinkston, "Characterizing the Cell EIB On-Chip Network," Sept.-Oct. 2007, pp. 6-14.
- Albonesi, David H.**, *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
- Angiolini, Federico**, *see* Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.
- Apperson, Ryan**, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
- Apsel, Alyssa B.**, *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
- Arditti Iltzky, David**, Jeffrey D. Hoffman, Anthony Chun, and Brando Perez Esparza, "Architecture of the Scalable Communications Core's Network on Chip," Sept.-Oct. 2007, pp. 62-74.
- Asanović, Krste**, *see* Wawrzyniek, John, Mar.-Apr. 2007, pp. 46-57.
- Atienza, David**, *see* Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.
- August, David I.**, *see* Reis, George A., Jan.-Feb. 2007, pp. 36-47.
- Ayguade, Eduard**, *see* Harris, Tim, May-June 2007, pp. 8-29.
- Work, Jeremy Webb, Michael Lai, Tinoosh Mohsenin, Dean Truong, and Jason Cheung, "AsAP: A Fine-Grained Many-Core Platform for DSP Applications," Mar.-Apr. 2007, pp. 34-45.
- Banerjee, Kaustav**, *see* Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
- Bao, Liewei**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- Benini, Luca**, *see* Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.
- Bergman, Keren**, *see* Shacham, Assaf, July-Aug. 2007, pp. 6-20.
- Bink, Arjan**, and Richard York, "ARM996HS: The First Licensable, Clockless 32-Bit Processor Core," Mar.-Apr. 2007, pp. 58-68.
- Black, Bryan**, *see* Loh, Gabriel H., May-June 2007, pp. 31-48.
- Bodík, Ratislav**, *see* Xu, Min, Jan.-Feb. 2007, pp. 48-55.
- Borkar, Nitin**, *see* Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.
- Borkar, Shekhar**, *see* Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.
- Bose, Pradip**, *see* Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.
- Brooks, David**, Robert P. Dick, Russ Joseph, and Li Shang, "Power, Thermal, and Reliability Modeling in Nanometer-Scale Microprocessors," May-June 2007, pp. 49-62.
- see also* Lee, Benjamin C., May-June 2007, pp. 74-93.
- Brown, John F., III**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- Burger, Doug**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
- Butts, Mike**, "Synchronization through Communication in a Massively Parallel

This index covers all technical items—papers, correspondence, reviews, and so on—that appeared in this periodical during 2007, and items from previous years that were commented upon or corrected in 2007. Departments and other items may *also* be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination.

The Subject Index lists items under all appropriate subject headings, with the first author's name, the publication abbreviation, month and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

B

- Baas, Bevan**, Zhiyi Yu, Michael Meeuwssen, Omar Sattari, Ryan Apperson, Eric

Processor Array,” Sept.-Oct. 2007, pp. 32-40.

C

Calder, Brad, *see* Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Carlstrom, Brian D., *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Carneal, Bruce, *see* Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Chafi, Hassan, *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Chakrabarti, Chaitali, *see* Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Chang, Jonathan, *see* Reis, George A., Jan.-Feb. 2007, pp. 36-47.

Chen, Jianwei, Michel Dubois, and Per Stenström, “SimWattch: Integrating Complete-System and User-Level Performance and Power Simulators,” July-Aug. 2007, pp. 34-48.

Cheng, Kai, *see* Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Cheung, Jason, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Chinthamani, Sundaram, *see* Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Chiou, Derek, *see* Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

see also Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

see also González, Antonio, Nov.-Dec. 2007, pp. 36-45.

see also Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.

see also Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

Choudhary, Puru, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.

Chun, Anthony, *see* Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.

Chung, JaeWoong, *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Conway, Pat, and Bill Hughes, “The AMD Opteron Northbridge Architecture,” Mar.-Apr. 2007, pp. 10-21.

Cristal, Adrián, *see* Harris, Tim, May-June 2007, pp. 8-29.

D

Dally, William J., *see* Owens, John D., Sept.-Oct. 2007, pp. 96-108.

DeMicheli, Giovanni, *see* Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Dick, Robert P., *see* Brooks, David, May-June 2007, pp. 49-62.

Dokania, Rajeev K., *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

Dubois, Michel, *see* Chen, Jianwei, July-Aug. 2007, pp. 34-48.

E

Edwards, Bruce, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Eeckhout, Lieven, *see* Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.

see also Hoste, Kenneth, May-June 2007, pp. 63-72.

Emer, Joel, Mark D. Hill, Yale N. Patt, Joshua J. Yi, Derek Chiou, and Resit Sendag, “Single-Threaded vs. Multi-threaded: Where Should We Focus?” Nov.-Dec. 2007, pp. 14-24.

Emma, Philip, “Reinventing Entrepreneurial Inventing for the 21st Century,” *Micro Innovations*, Jan.-Feb. 2007, pp. 136-135.

“Supercharging Your Creative Skills,” *Micro Innovations*, Mar.-Apr. 2007, pp. 88, 87.

“Arcane Facts and New Words: Expanding Your Creative Talent,” *Micro Innovations*, May-June 2007, pp. 112, 111.

“Innovation or Notoriety?” *Micro Innovations*, July-Aug. 2007, pp. 64, 63.

“You’re Invited to a Party! (How to Hold a Collaborative IP-Development Session),” *Micro Innovations*, Nov.-Dec. 2007, pp. 64, 62-63.

Eyerman, Stijn, Lieven Eeckhout, Tejas Karkhanis, and James E. Smith, “A Top-Down Approach to Architecting CPI Component Performance Counters,” Jan.-Feb. 2007, pp. 84-93.

F

Flautner, Krisztián, *see* Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

G

- GadelRab, Serag**, "10-Gigabit Ethernet Connectivity for Computer Servers," May-June 2007, pp. 94-105.
- Gagliardi, Fabrizio**, *see* Harris, Tim, May-June 2007, pp. 8-29.
- Ghose, Kanad**, *see* Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.
- González, Antonio**, Scott Mahlke, Shubu Mukherjee, Resit Sendag, Derek Chiou, and Joshua J. Yi, "Reliability: Fallacy or Reality?" Nov.-Dec. 2007, pp. 36-45.
see also Ronen, Ronny, Jan.-Feb. 2007, pp. 8-11.
- González, Ivan**, Estanislao Aguayo, and Sergio Lopez-Buedo, "Self-Reconfigurable Embedded Systems on Low-Cost FPGAs," July-Aug. 2007, pp. 49-57.
- Gratz, Paul**, Changkyu Kim, Karthikeyan Sankaralingam, Heather Hanson, Premkishore Shivakumar, Stephen W. Keckler, and Doug Burger, "On-Chip Interconnection Networks of the TRIPS Chip," Sept.-Oct. 2007, pp. 41-50.
- Greenstein, Shane**, "The High Cost of a Cheap Lesson," *Micro Economics*, Jan.-Feb. 2007, pp. 7, 133.
"Wagging Wikipedia's Long Tail," *Micro Economics*, Mar.-Apr. 2007, pp. 6, 79.
"Did the Price of the Internet Drop?" *Micro Economics*, May-June 2007, pp. 6-7.
"The 15-Billion-Dollar Broadband Bonus," *Micro Economics*, July-Aug. 2007, pp. 5, 58.
"Dog Days for Broadband," *Micro Economics*, Sept.-Oct. 2007, pp. 112-112.
"Innovation at the Edges," *Micro Economics*, Nov.-Dec. 2007, pp. 8-10.
- Griffin, Patrick**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- Gueron, Shay**, Jean-Pierre Seifert, Geoffrey Strongin, Derek Chiou, Resit Sendag, and Joshua J. Yi, "Where Does Security Stand? New Vulnerabilities vs. Trusted Computing," Nov.-Dec. 2007, pp. 25-35.
- Gyu Lee, Hyung**, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.

H

- Hanson, Heather**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
- Harel, Yoav**, *see* Lin, Yuan, Jan.-Feb. 2007 114-123.
- Harris, Tim**, Adrián Cristal, Osman S. Unsal, Eduard Ayguade, Fabrizio Gagliardi, Burton Smith, and Mateo Valero, "Transactional Memory: An Overview," May-June 2007, pp. 8-29.
- Hill, Mark D.**, *see* Xu, Min, Jan.-Feb. 2007, pp. 48-55.
see also Emer, Joel, Nov.-Dec. 2007, pp. 14-24.
- Ho, Ron**, *see* Owens, John D., Sept.-Oct. 2007, pp. 96-108.
- Hoe, James C.**, *see* Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.
- Hoffman, Jeffrey D.**, *see* Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.
- Hoffmann, Henry**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- Hoskote, Yatin**, Sriram Vangal, Arvind Singh, Nitin Borkar, and Shekhar Borkar, "A 5-GHz Mesh Interconnect for a Teraflops Processor," Sept.-Oct. 2007, pp. 51-61.
- Hoste, Kenneth**, and Lieven Eeckhout, "Microarchitecture-Independent Workload Characterization," May-June 2007, pp. 63-72.
- Hughes, Bill**, *see* Conway, Pat, Mar.-Apr. 2007, pp. 10-21.

I

- Illikkal, Ramesh**, *see* Zhao, Li, July-Aug. 2007, pp. 21-33.
- Iyer, Ravi**, *see* Zhao, Li, July-Aug. 2007, pp. 21-33.

J

- Jayasimha, D.N. (Jay)**, *see* Owens, John D., Sept.-Oct. 2007, pp. 96-108.
- Joao, José A.**, *see* Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.
- Joseph, Russ**, *see* Brooks, David, May-June 2007, pp. 49-62.

K

- Karkhanis, Tejas**, *see* Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.

- Kaufman, Michael**, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
- Keckler, Stephen W.**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
see also Owens, John D., Sept.-Oct. 2007, pp. 96-108.
- Kim, Changkyu**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
- Kim, Hyesoon**, José A Joao, Onur Mutlu, and Yale N. Patt, "Diverge-Merge Processor: Generalized and Energy-Efficient Dynamic Predication," Jan.-Feb. 2007, pp. 94-104.
- Kirman, Meyrem**, *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
- Kirman, Nevin**, Meyrem Kirman, Rajeev K. Dokania, José F. Martínez, Alyssa B. Apsel, Matthew A. Watkins, and David H. Albonesi, "On-Chip Optical Technology in Future Bus-Based Multicore Designs," Jan.-Feb. 2007, pp. 56-66.
- Kozyrakis, Christoforos**, *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.
see also Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.
- Kubiatowicz, John**, and Howard Sachs, "Hot Chips 18," Guest Editors' Introduction, Mar.-Apr. 2007, pp. 7-9.
- Kundu, Partha**, and Li-Shiuan Peh, "On-Chip Interconnects for Multicores," Guest Editors' Introduction, Sept.-Oct. 2007, pp. 3-5.
- L**
- Lai, Michael**, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
- Lee, Benjamin C.**, and David M. Brooks, "Spatial Sampling and Regression Strategies," May-June 2007, pp. 74-93.
- Lee, Hyunseok**, *see* Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.
- Lin, Sheng-Chih**, *see* Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
- Lin, Yuan**, Hyunseok Lee, Mark Woh, Yoav Harel, Scott Mahlke, Trevor Mudge, Chaitali Chakrabarti, and Krisztián Flautner, "SODA: A High-Performance DSP Architecture for Software-Defined Radio," Jan.-Feb. 2007, pp. 114-123.
- Loh, Gabriel H.**, Yuan Xie, and Bryan Black, "Processor Design in 3D Die Stacking Technologies," May-June 2007, pp. 31-48.
- Lopez-Buedo, Sergio**, *see* González, Ivan, July-Aug. 2007, pp. 49-57.
- Lu, Shan**, Joseph Tucek, Feng Qin, and Yuanyuan Zhou, "AVIO: Detecting Atomicity Violations via Access-Interleaving Invariants," Jan.-Feb. 2007, pp. 26-35.
- Lu, Shih-Lien**, *see* Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.
- M**
- Mahlke, Scott**, *see* Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.
see also González, Antonio, Nov.-Dec. 2007, pp. 36-45.
- Makineni, Srihari**, *see* Zhao, Li, July-Aug. 2007, pp. 21-33.
- Marculescu, Diana**, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
- Marculescu, Radu**, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
- Martin, Milo M.K.**, *see* Sha, Tingting, Jan.-Feb. 2007, pp. 106-113.
- Martínez, José F.**, *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
- Mateosian, Richard**, "Economics," Micro Review [reviews of *Invisible Engines: How Software Platforms Drive Innovation and Transform Industries* (D.S. Evans, A. Hagiu, and R. Schmalensee, 2006) and *Making Globalization Work* (Joseph E. Stiglitz, 2006)], Jan.-Feb. 2007, pp. 128-130.
"Looking Back," Micro Review, Mar.-Apr. 2007, pp. 83-85.
"Thinking about Technology," Micro Review [review of *Devices of the Soul* (S. Talbott, 2007)], July-Aug. 2007, pp. 59-61.
"Advice for Investigators," [reviews of *Advice for a Young Investigator* (S. Ramon y Cajal, 2004); *Agile Retrospectives: Making Good Teams Great* (E. Derby and D. Larsen, 2006); and *Oracle Essentials*, 4th ed. (R. Greenwals et al., 2008)]; Nov.-Dec. 2007, pp. 60-61.
- Mattina, Matthew**, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.
- McDonald, Austen**, Brian D. Carlstrom, JaeWoong Chung, Chi Cao Minh,

Hassan Chafi, Christos Kozyrakis, and Kunle Olukotun, "Transactional Memory: The Hardware-Software Interface," Jan.-Feb. 2007, pp. 67-76.

Meeuwssen, Michael, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Miao, Chyi-Chang, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Minh, Chi Cao, *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Mohsenin, Tinoosh, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Moses, Jaideep, *see* Zhao, Li, July-Aug. 2007, pp. 21-33.

Mudge, Trevor, *see* Lin, Yuan, Jan.-Feb. 2007 114-123.

Mukherjee, Shubu, *see* González, Antonio, Nov.-Dec. 2007, pp. 36-45.

Murali, Srinivasan, *see* Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Mutlu, Onur, *see* Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.

Mysore, Shashidhar, Banit Agrawal, Navin Srivastava, Sheng-Chih Lin, Kaustav Banerjee, and Timothy Sherwood, "3D Integration for Inspection," Jan.-Feb. 2007, pp. 77-83.

N

Narayanasamy, Satish, *see* Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Nelson, Peter, *see* Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.

Newell, Don, *see* Zhao, Li, July-Aug. 2007, pp. 21-33.

O

Ogras, Umit Y., Radu Marculescu, Hyung Gyu Lee, Puru Choudhary, Diana Marculescu, Michael Kaufman, and Peter Nelson, "Challenges and Promising Results in NoC Prototyping Using FPGAs," Sept.-Oct. 2007, pp. 86-95.

Olukotun, Kunle, *see* McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Oskin, Mark, *see* Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

Owens, John D., William J. Dally, Ron Ho, D.N. (Jay) Jayasimha, Stephen W. Keckler, and Li-Shiuan Peh, "Research Challenges for On-Chip Interconnection

Networks," Sept.-Oct. 2007, pp. 96-108.

P

Patt, Yale N., *see* Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

see also Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.

Patterson, David, *see* Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

Peh, Li-Shiuan, *see* Kundu, Partha, Sept.-Oct. 2007, pp. 3-5.

see also Owens, John D., Sept.-Oct. 2007, pp. 96-108.

Perez Esparza, Brando, *see* Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.

Pinkston, Timothy Mark, *see* Ainsworth, Thomas William, Sept.-Oct. 2007, pp. 6-14.

Pullini, Antonio, Federico Angiolini, Srinivasan Murali, David Aienza, Giovanni De Micheli, and Luca Benini, "Bringing NoCs to 65 nm," Sept.-Oct. 2007, pp. 75-85.

Q

Qin, Feng, *see* Lu, Shan, Jan.-Feb. 2007, pp. 26-35.

R

Radhakrishnan, Sivakumar, Sundaram Chinthamani, and Kai Cheng, "The Blackford Northbridge Chipset for the Intel 5000," Mar.-Apr. 2007, pp. 22-33.

Ramey, Carl, *see* Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Reis, George A., Jonathan Chang, and David I. August, "Automatic Instruction-Level Software-Only Recovery," Jan.-Feb. 2007, pp. 36-47.

Ronen, Ronny, and Antonio González, "Micro's Top Picks from the Microarchitecture Conferences," Guest Editors' Introduction, Jan.-Feb. 2007, pp. 8-11.

Roth, Amir, *see* Sha, Tingting, Jan.-Feb. 2007, pp. 106-113.

S

Sachs, Howard, *see* Kubiawicz, John, Mar.-Apr. 2007, pp. 7-9.

- Sankaralingam, Karthikeyan**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
- Sarangi, Smruti**, Satish Narayanasamy, Bruce Carneal, Abhishek Tiwari, Brad Calder, and Josep Torrellas, "Patching Processor Design Errors with Programmable Hardware," Jan.-Feb. 2007, pp. 12-25.
- Sattari, Omar**, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
- Seifert, Jean-Pierre**, *see* Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.
- Sendag, Resit**, *see* Emer, Joel, Nov.-Dec. 2007, pp. 14-24.
see also González, Antonio, Nov.-Dec. 2007, pp. 36-45.
see also Gueron, Shay, Nov.-Dec. 2007, pp. 25-35
see also Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.
- Sha, Tingting**, Milo M.K. Martin, and Amir Roth, "NoSQ: Store-Load Communication without a Store Queue," Jan.-Feb. 2007 106-113.
- Shacham, Assaf**, and Bergman, Keren, Building Ultralow-Latency Interconnection Networks Using Photonic Integration," July-Aug. 2007, pp. 6-20.
- Shang, Li**, *see* Brooks, David, May-June 2007, pp. 49-62.
- Sherwood, Timothy**, *see* Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
- Shivakumar, Premkishore**, *see* Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
- Singh, Arvind**, *see* Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.
- Skadron, Kevin**, Pradip Bose, Kanad Ghose, Resit Sendag, Joshua J. Yi, and Derek Chiou, "Low-Power Design and Temperature Management," Nov.-Dec. 2007, pp. 46-57.
- Smith, Burton**, *see* Harris, Tim, May-June 2007, pp. 8-29.
- Smith, James E.**, *see* Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.
- Srivastava, Navin**, *see* Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
- Stenström, Per**, *see* Chen, Jianwei, July-Aug. 2007, pp. 34-48.
- Stern, Richard**, "West Coast Federal Appeals Court Upholds Chip Protection Act Violation Finding," Micro Law, Jan.-Feb. 2007, pp. 124-126.
- "Coming Down the Home Stretch in the Rambus Standardization Skulduggery Saga: To Levy or Not to Levy Royalties," Micro Law, Mar.-Apr. 2007, pp. 80-82.
- "Antitrust Division Gives IEEE Standard Setters the Okay to Ask Patentees How RAND They Are," Micro Law, May-June 2007, pp. 106-109.
- "Federal Appeals Court Sees Potential Antitrust Violation in Standardization Skulduggery," Micro Law, Sept.-Oct. 2007, pp. 109-110.
- "Supreme Court to Hear Semiconductor Chip Patent 'Exhaustion' Case," Micro Law, Nov.-Dec. 2007, pp. 11-13.
- Strongin, Geoffrey**, *see* Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

T

- Torrellas, Josep**, *see* Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.
- Truong, Dean**, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
- Tucek, Joseph**, *see* Lu, Shan, Jan.-Feb. 2007, pp. 26-35.

U

- Unsal, Osman S.**, *see* Harris, Tim, May-June 2007, pp. 8-29.

V

- Valero, Mateo**, *see* Harris, Tim, May-June 2007, pp. 8-29.
- Vangal, Sriram**, *see* Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.

W

- Watkins, Matthew A.**, *see* Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
- Wawrzyniek, John**, David Patterson, Mark Oskin, Shih-Lien Lu, Christoforos Kozyrakis, James C. Hoe, Derek Chiou, and Krste Asanović, "RAMP: Research Accelerator for Multiple Processors," Mar.-Apr. 2007, pp. 46-57.
- Webb, Jeremy**, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
- Wentzlaff, David**, Patrick Griffin, Henry Hoffmann, Liewei Bao, Bruce Edwards, Carl Ramey, Matthew Mattina, Chyi-Chang Miao, John F. Brown III, and Anant Agarwal, "On-Chip Interconnec-

tion Architecture of the Tile Processor,” Sept.-Oct. 2007, pp. 15-31.

Woh, Mark, *see* Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Work, Eric, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

X

Xie, Yuan, *see* Loh, Gabriel H., May-June 2007, pp. 31-48.

Xu, Min, Ratislav Bodík, and Mark D. Hill, “A Hardware Memory Race Recorder for Deterministic Replay,” Jan.-Feb. 2007, pp. 48-55.

Y

Yeh, Tse-Yu, “Low-Power, High-Performance Architecture of the PWRficient Processor Family,” Mar.-Apr. 2007, pp. 69-78.

Yi, Joshua J., *see* Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

see also González, Antonio, Nov.-Dec. 2007, pp. 36-45.

see also Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

see also Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.

York, Richard, *see* Bink, Arjan, Mar.-Apr. 2007, pp. 58-68.

Yu, Zhiyi, *see* Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Z

Zhao, Li, Ravi Iyer, Jaideep Moses, Ramesh Illikkal, Srihari Makineni, and Don Newell, “Exploring Large-Scale CMP Architectures Using ManySim,” July-Aug. 2007, pp. 21-33.

Zhou, Yuanyuan, *see* Lu, Shan, Jan.-Feb. 2007, pp. 26-35.

SUBJECT INDEX

[Articles listed by first author only. *See Author Index for coauthors.*]

A

Antitrust

Stern, Richard, Mar.-Apr. 2007, pp. 80-82; May-June 2007, pp. 106-109; Sept.-Oct. 2007, pp. 109-110.

Application-based systems

González, Ivan, July-Aug. 2007, pp. 49-57.

B

Book reviews

Advice for a Young Investigator (S. Ramon y Cajal, 2004) Mateosian, Richard, Nov.-Dec. 2007, pp. 60-61.

Agile Retrospectives: Making Good Teams Great (E. Derby and D. Larsen, 2006) Mateosian, Richard, Nov.-Dec. 2007, pp. 60-61.

Devices of the Soul (S. Talbott, 2007), Mateosian, Richard, July-Aug. 2007, pp. 59-61.

Invisible Engines: How Software Platforms Drive Innovation and Transform Industries (D.S. Evans, A. Hagiou, and R. Schmalensee, 2006), Mateosian, Richard, Jan.-Feb. 2007, pp. 128-130.

Making Globalization Work (Joseph E. Stiglitz, 2006), Mateosian, Richard, Jan.-Feb. 2007, pp. 128-130.

Oracle Essentials, 4th ed. (R. Greenwals et al., 2008), Mateosian, Richard, Nov.-Dec. 2007, pp. 60-61.

Brain

Emma, Philip, Mar.-Apr. 2007, pp. 88, 87.

Broadband networks

Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Greenstein, Shane, May-June 2007, pp. 6-7; July-Aug. 2007, pp. 5, 58; Sept.-Oct. 2007, pp. 112, 111.

C

CMOS integrated circuits

Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.

Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

Cache storage

Sha, Tingting, Jan.-Feb. 2007, pp. 106-113.

Circuit design

Bink, Arjan, Mar.-Apr. 2007, pp. 58-68.

Code division multiple access

Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Collaboration

Emma, Philip, Nov.-Dec. 2007 pp. 64, 62-63.

Computer architecture

Brooks, David, May-June 2007, pp. 49-62.

Chen, Jianwei, July-Aug. 2007, pp. 34-48.

Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.
 Harris, Tim, May-June 2007, pp. 8-29.
 Lee, Benjamin C., May-June 2007, pp. 74-93.
 Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.
 Loh, Gabriel H., May-June 2007, pp. 31-48.
 Mateosian, Richard, Mar.-Apr. 2007, pp. 83-85.
 Ronen, Ronny, Jan.-Feb. 2007, pp. 8-11.
 Sha, Tingting, Jan.-Feb. 2007, pp. 106-113.
 Yeh, Tse-Yu, Mar.-Apr. 2007, pp. 69-78.
 Zhao, Li, July-Aug. 2007, pp. 21-33.

Computer processors

Bink, Arjan, Mar.-Apr. 2007, pp. 58-68.
 Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

Computer software

Mateosian, R., Nov.-Dec. 2007 pp. 60-61.

Concurrency control

McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Copyright

Stern, Richard, Nov.-Dec. 2007 pp. 11-14.

Counting circuits

Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.

D**Data communications**

GadelRab, Serag, May-June 2007, pp. 94-105.

Shacham, Assaf, July-Aug. 2007, pp. 6-20.

Data stream architectures

Ainsworth, Thomas William, Sept.-Oct. 2007, pp. 6-14.

Data stream processors

Butts, Mike, Sept.-Oct. 2007, pp. 32-40.

Design engineering

Chen, Jianwei, July-Aug. 2007, pp. 34-48.
 Lee, Benjamin C., May-June 2007, pp. 74-93.

Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.

Digital signal processing chips

Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
 Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Distributed processing

Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.
 Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

E**Economics**

Greenstein, Shane, Jan.-Feb. 2007, pp. 7, 132; Mar.-Apr. 2007, pp. 6, 79; May-June 2007, pp. 6-7; July-Aug. 2007, pp. 5, 58; Sept.-Oct. 2007, pp. 112, 111;
 Mateosian, Richard, Jan.-Feb. 2007 128-130.

Education

Mateosian, Richard, July-Aug. 2007, pp. 59-61.

Embedded systems

Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.
 González, Ivan, July-Aug. 2007, pp. 49-57.
 Kubiawicz, John, Mar.-Apr. 2007, pp. 7-9.
 Kundu, Partha, Sept.-Oct. 2007, pp. 3-5.
 Owens, John D., Sept.-Oct. 2007, pp. 96-108.

Emulation

Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

Encyclopedia

Greenstein, Shane, Mar.-Apr. 2007, pp. 6, 79.

Error detection

Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Ethernet

GadelRab, Serag, May-June 2007, pp. 94-105.

F**Fault diagnosis**

González, Antonio., Nov.-Dec. 2007, pp. 36-45.
 Reis, George A., Jan.-Feb. 2007, pp. 36-47.
 Xu, Min, Jan.-Feb. 2007, pp. 48-55.

Field-programmable gate arrays

Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
 Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

G**Globalization**

Mateosian, Richard, Jan.-Feb. 2007, pp. 128-130; Mar.-Apr. 2007, pp. 83-85.

H**Hardware-software codesign**

McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

I

Industries

Greenstein, Shane, Nov.-Dec. 2007 pp. 8-10.

Innovation management

Emma, Philip, Jan.-Feb. 2007, pp. 136, 135; Mar.-Apr. 2007, pp. 88-87; July-Aug. 2007, pp. 64, 63.

Input-output

GadelRab, Serag, May-June 2007, pp. 94-105.

Shacham, Assaf, July-Aug. 2007, pp. 6-20.

Instruction sets

Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.

Reis, George A., Jan.-Feb. 2007, pp. 36-47.

Integrated circuit design

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Integrated circuit interconnections

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Integrated circuit manufacture

Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Intellectual property

Emma, Philip, July-Aug. 2007, pp. 64-63; Nov.-Dec. 2007, pp. 64, 62-63.

Interconnection networks

Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.

Ainsworth, Thomas William, Sept.-Oct. 2007, pp. 6-14.

Owens, John D., Sept.-Oct. 2007, pp. 96-108.

Internet

Greenstein, Shane, Mar.-Apr. 2007, pp. 6, 79; May-June 2007, pp. 6-7; July-Aug. 2007, pp. 5, 58; Sept.-Oct. 2007, pp. 112, 111

K

Knowledge management

Greenstein, Shane, Jan.-Feb. 2007, pp. 7, 133.

L

Legal issues

Stern, Richard, Jan.-Feb. 2007, pp. 124-126; Mar.-Apr. 2007, pp. 80-82; May-

June 2007, pp. 106-109; Sept.-Oct. 2007, pp. 109-110; Nov.-Dec. 2007 pp. 11-14.

Licensing

Stern, Richard, May-June 2007, pp. 106-109; Sept.-Oct. 2007, pp. 109-110.

Local area networks

GadelRab, Serag, May-June 2007, pp. 94-105.

Logic design

Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.

Low-power electronics

Bink, Arjan, Mar.-Apr. 2007, pp. 58-68.

Chen, Jianwei, July-Aug. 2007, pp. 34-48.

Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.

Yeh, Tse-Yu, Mar.-Apr. 2007, pp. 69-78.

M

Management

Greenstein, Shane, Nov.-Dec. 2007 pp. 8-10.

Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Market research

Greenstein, Shane, Jan.-Feb. 2007, pp. 7, 133.

Measurement

Hoste, Kenneth, May-June 2007, pp. 63-72.

Memory

Harris, Tim, May-June 2007, pp. 8-29.

Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Mesh networks

Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.

Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Microarchitecture

Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Conway, Pat, Mar.-Apr. 2007, pp. 10-21.

Microprocessor chips

Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.

- Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.
 Kubiawicz, John, Mar.-Apr. 2007, pp. 7-9.
 McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.
 Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.
 Sarangi, Smruti, Jan.-Feb. 2007, pp. 12-25.
 Stern, Richard, Jan.-Feb. 2007, pp. 124-126.
 Xu, Min, Jan.-Feb. 2007, pp. 48-55.

Mobile communications

- Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.

Mobile radio

- Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Modeling

- Brooks, David, May-June 2007, pp. 49-62.
 Chen, Jianwei, July-Aug. 2007, pp. 34-48.
 Hoste, Kenneth, May-June 2007, pp. 63-72.

Multithreading

- Lu, Shan, Jan.-Feb. 2007, pp. 26-35.
 Xu, Min, Jan.-Feb. 2007, pp. 48-55.

Multiprocessing programs

- Lu, S., Jan.-Feb. 2007, pp. 26-35.

N

Network on chip

- Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.
 Kundu, Partha, Sept.-Oct. 2007, pp. 3-5.
 Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
 Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.
 Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

O

On-chip interconnection

- Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.
 Kundu, Partha, Sept.-Oct. 2007, pp. 3-5.
 Ogras, Umit Y., Sept.-Oct. 2007, pp. 86-95.
 Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.
 Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Optical interconnections

- Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

- Shacham, Assaf, July-Aug. 2007, pp. 6-20.

Optimization.

- Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

P

Packet switching

- Gratz, Paul, Sept.-Oct. 2007, pp. 41-50.

Parallel architectures

- Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.

Parallel processing

- Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.

- Butts, Mike, Sept.-Oct. 2007, pp. 32-40.

- Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

- Harris, Tim, May-June 2007, pp. 8-29.

- McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

- Wawrzynek, John, Mar.-Apr. 2007, pp. 46-57.

- Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Patents

- Emma, Philip, Jan.-Feb. 2007, pp. 136-135; Mar.-Apr. 2007, pp. 88, 87; May-June 2007, pp. 112, 111; July-Aug. 2007, pp. 64, 63; Nov.-Dec. 2007, pp. 64, 62-63.

- Stern, Richard, Jan.-Feb. 2007, pp. 124-126; Mar.-Apr. 2007, pp. 80-82; May-June 2007, pp. 106-109; Sept.-Oct. 2007, pp. 109-110; Nov.-Dec. 2007 pp. 11-14.

Performance evaluation

- Eyerman, Stijn, Jan.-Feb. 2007, pp. 84-93.

- Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

- Hoste, Kenneth, May-June 2007, pp. 63-72.

- Lee, Benjamin C., May-June 2007, pp. 74-93.

- Zhao, Li, July-Aug. 2007, pp. 21-33.

Physiology

- Emma, Philip, Mar.-Apr. 2007, pp. 88-87.

Power management

- Chen, Jianwei, July-Aug. 2007, pp. 34-48.

Pricing

- Greenstein, Shane, May-June 2007, pp. 6-7.

Process variation

- Brooks, David, May-June 2007, pp. 49-62.

Professional communication

Emma, Philip, May-June 2007, pp. 112-111; Nov.-Dec. 2007 pp. 64, 62-63.

Greenstein, Shane, Nov.-Dec. 2007 pp. 8-10.

Mateosian, Richard, Nov.-Dec. 2007 pp. 60-61.

Program compilers

Kim, Hyesoon, Jan.-Feb. 2007, pp. 94-104.

Program debugging

Lu, Shan, Jan.-Feb. 2007, pp. 26-35.

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Xu, Min, Jan.-Feb. 2007, pp. 48-55.

Program processors

Ainsworth, Thomas William, Sept.-Oct. 2007, pp. 6-14.

Baas, Bevan, Mar.-Apr. 2007, pp. 34-45.

Butts, Mike, Sept.-Oct. 2007, pp. 32-40.

Emer, Joel, Nov.-Dec. 2007, pp. 14-24.

Loh, Gabriel H., May-June 2007, pp. 31-48.

Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Shacham, Assaf, July-Aug. 2007, pp. 6-20.

Yeh, Tse-Yu, Mar.-Apr. 2007, pp. 69-78.

Program testing

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Project management.

Mateosian, Richard, Mar.-Apr. 2007, pp. 83-85.

R

Real-time systems

González, Ivan, July-Aug. 2007, pp. 49-57.

Reconfigurable hardware

González, Ivan, July-Aug. 2007, pp. 49-57.

Regression analysis

Lee, Benjamin C., May-June 2007, pp. 74-93.

Reliability

Brooks, David, May-June 2007, pp. 49-62.

González, Antonio, Nov.-Dec. 2007, pp. 36-45.

Routers

Hoskote, Yatin, Sept.-Oct. 2007, pp. 51-61.

S

Sampling

Lee, Benjamin C., May-June 2007, pp. 74-93.

Scalability

Conway, Pat, Mar.-Apr. 2007, pp. 10-21.

Security

Gueron, Shay, Nov.-Dec. 2007, pp. 25-35.

Servers

Zhao, Li, July-Aug. 2007, pp. 21-33.

Shared memory

Radhakrishnan, Sivakumar, Mar.-Apr. 2007, pp. 22-33.

Silicon

Loh, Gabriel H., May-June 2007, pp. 31-48.

Simulation

Chen, Jianwei, July-Aug. 2007, pp. 34-48.

Zhao, Li, July-Aug. 2007, pp. 21-33.

Software fault tolerance

Reis, George A., Jan.-Feb. 2007, pp. 36-47.

Software radio

Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Software reliability

Xu, Min, Jan.-Feb. 2007, pp. 48-55.

Special issues and sections

Kundu, Partha, Sept.-Oct. 2007, pp. 3-5.

Kubiatowicz, John, Mar.-Apr. 2007, pp. 7-9.

Ronen, Ronny, Jan.-Feb. 2007, pp. 8-11.

Standardization

Stern, Richard, Mar.-Apr. 2007, pp. 80-82; May-June 2007, pp. 106-109; Sept.-Oct. 2007, pp. 109-110.

Strategic planning

Emma, Philip, Nov.-Dec. 2007 pp. 64, 62-63.

Greenstein, Shane, Nov.-Dec. 2007 pp. 8-10.

Submicron design

Pullini, Antonio, Sept.-Oct. 2007, pp. 75-85.

Synchronization

Butts, Mike, Sept.-Oct. 2007, pp. 32-40.

System buses

Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

System on chip

Kirman, Nevin, Jan.-Feb. 2007, pp. 56-66.

Kundu, Partha, Sept.-Oct. 2007, pp. 3-5

Mysore, Shashidhar, Jan.-Feb. 2007, pp. 77-83.

Owens, John D., Sept.-Oct. 2007, pp. 96-108.

System recovery

Reis, George A., Jan.-Feb. 2007, pp. 36-47.

Xu, Min, Jan.-Feb. 2007, pp. 48-55.

T

Technology

Greenstein, Shane, Nov.-Dec. 2007 pp. 8-10.

Mateosian, Richard, July-Aug. 2007, pp. 59-61.

Temperature, thermal analysis

Brooks, David, May-June 2007, pp. 49-62.

Skadron, Kevin, Nov.-Dec. 2007, pp. 46-57.

Three-dimensional designs

Loh, Gabriel H., May-June 2007, pp. 31-48.

Tile processors

Wentzlaff, David, Sept.-Oct. 2007, pp. 15-31.

Topology

Conway, Pat, Mar.-Apr. 2007, pp. 10-21.

Transactional memory

Harris, Tim, May-June 2007, pp. 8-29.

McDonald, Austen, Jan.-Feb. 2007, pp. 67-76.

V

VLSI

Bink, Arjan, Mar.-Apr. 2007, pp. 58-68.

W

Wide area networks

Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.

Wikipedia

Greenstein, Shane, Mar.-Apr. 2007, pp. 6, 79.

Wireless LAN

Lin, Yuan, Jan.-Feb. 2007, pp. 114-123.

Wireless communications

Arditti Ilitzky, David, Sept.-Oct. 2007, pp. 62-74.