Features

7 Guest Editors' Introduction: Hot Chips 18
   John Kubitovicz and Howard Sachs

10 The AMD Opteron Northbridge Architecture
   Pat Conway and Bill Hughes

22 The Blackford Northbridge Chipset for the Intel 5000
   Sivakumar Radhakrishnan, Sundaram Chinthamani, and Kai Cheng

34 AsAP: A Fine-Grained Many-Core Platform for DSP Applications
   Bevan Baas, Zhiyi Yu, Michael Meeuwsen, Omar Sattari, Ryan Apperson,
   Eric Work, Jeremy Webb, Michael Lai, Tinoosh Moshenin, Dean Truong,
   and Jason Cheung

46 RAMP: Research Accelerator for Multiple Processors
   John Wawrzynek, David Patterson, Mark Oskin, Shih-Lien Lu,
   Christoforos Kozyrakis, James C. Hoe, Derek Chiou, and Krste Asanović

58 ARM996HS: The First Licensable, Clockless 32-Bit Processor Core
   Arjan Bink and Richard York

69 Low-Power, High-Performance Architecture of the PWRficient Processor Family
   Tse-Yu Yeh