IEEE COMPUTER SOCIETY
TECHNICAL COMMITTEE
ON VLSI

Best Paper Award

ASYNC' 2005

Procedure

- Initial set of papers selected in consultation with conference/program chairs
  - 8 papers accepted in first round
  - Program committee invited to submit requests to add papers
    - No requests submitted
- Program committee selected in consultation with conference/program chairs
- Each program member ranked all 8 papers
- Only a prize for first, but we'll mention the runners-up

Program Committee

- Peter Beerel
- Erik Brunvand
- David Kinniment
- Michael Kishinevsky
- Marc Renaudin

- Peter Hofstee, chair (non-voting)

Honorable Mention (tie)

- "BitSNAP: Dynamic Significance Compression for a Low-Energy Sensor Asynchronous Network Processor“
  - Virantha N. Ekanayake, Clinton Kelly, IV, Rajit Manohar, Cornell University
  - “[..] impressive, showing that datapath energy consumption in a bit serial datapath can be reduced to a very low level.”
- "Self-timed circuitry for global clocking“
  - Scott Fairbanks, Simon Moore, University of Cambridge
  - “[..] interesting results showing that a distributed network of clock generators can reduce the effective clock skew to a few picoseconds”

Runner Up

- "Modeling and Verifying Circuits Using Generalized Relative Timing"
  - Sanjit A. Seshia (1), Randall E. Bryant (1), Kenneth S. Stevens (2)
    - (1) Carnegie Mellon University, CS
    - (2) Intel Strategic Cad Labs
- “Application of a symbolic model-checking of timed automata to verification of relative timing asynchronous circuits, which seems to be higher capacity than previous techniques. “
- “[..] great combination of advance of theory, advance of practice, and real-world examples … huge potential impact”

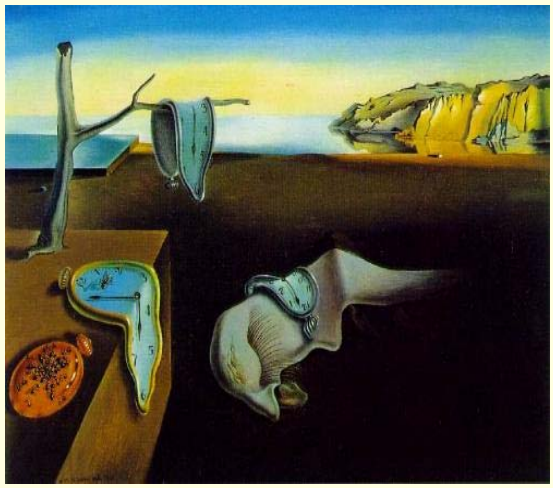
Best Paper

- "A Scheduling Discipline for Latency and Bandwidth Guarantees in Asynchronous Network-on-Chip“
  - Tobias Bjerregaard, Jens Sparsoe, Technical University of Denmark
- “This paper addresses the hot topic of guaranteed services in networks on chip, and presents interesting results which have been verified in silicon. An impressive paper.”
- “Simultaneous bandwidth and latency service guarantees”
- “A novel message scheduling algorithm with guaranteed bounds for both latency and bandwidth and its asynchronous implementation.”
- “Solid simulation results (mapped to standard cells) demonstrating high quality of service.” “Theoretical proofs of correctness.”

Nice Artwork

Artist: Salvador Dali
Artist's Lifespan: 1904-1989
Title: The Persistence of Memory
Date: 1931

Location of Origin: Spain
Medium: Oil on canvas
Original Size: 9 1/2 x 13 in
Style: Surrealism
Genre: Landscape
Location: Museum of Modern Art, New York



"inspired by an overripe camembert cheese… "

More Dali

Artist: Salvador Dali (attr.)
Title: Melting Clock
Year: circa 1979
Medium: Lithograph

"Persistence may reflect Dali's interest in Einstein's theories of relativity which destroyed former notions of time and space - Jason Thomas

And the Award…

in the surrealistic tradition of Salvador Dali's famous melting watches ….