

## CALL FOR PAPERS

### IEEE Transactions on VLSI Systems Special Section on Networks-On-Chip

Network-on-Chip (NoC) is an emerging paradigm using packet-switched networks for communications within large VLSI systems on-chip. NoCs are poised to provide enhanced performance, scalability, modularity, and design productivity as compared with previous communication architectures such as busses and dedicated signal wires.

This special section is dedicated to research problems in all aspects of architecture and design of NoCs and NoC-based systems. Topics of interest include, but are not limited to:

- *Network architecture (topology, routing, arbitration, etc)*
- *Power and energy issues in NoCs*
- *NoC case studies, application-specific NoC design*
- *Timing, synchronous/asynchronous communication*
- *NoC reliability issues*
- *Operating system support for NoCs*
- *Metrics and benchmarks for NoCs*
- *NoC network interface issues*
- *Modeling, simulation, and synthesis of NoCs*
- *NoC Quality of Service*
- *NoC support for CMP / MPSoC*
- *NoC support for memory access*
- *NoCs for FPGAs and structured ASICs*
- *Programming models*
- *Mapping of applications onto NoCs*
- *Novel interconnect links / switches / routers*
- *Signaling and circuit design for NoC links*
- *Physical design of interconnect and NoC*

Authors are encouraged to submit high-quality research contributions that will not require major revisions. Extensions of papers presented at the **International Symposium on Networks-on-Chips, Princeton, NJ, May 7-9, 2007** (<http://www.nocsymposium.org>) are especially encouraged, but work not presented at the symposium is also welcome. Please identify clearly the additional material from the original symposium paper in your submitted manuscript. All manuscripts are subject to standard IEEE Transactions on VLSI Systems review process. Prospective authors should submit their manuscripts electronically on the TVLSI Web site: <http://tvlsi-ieee.manuscriptcentral.com/>

Authors should clearly identify their papers as submissions for the “Special Section on Networks-on-Chip 2007” on their manuscript and in the Note to Editor field of the web submission form. Instructions on how to submit a paper can be found at <http://tvlsi-ieee.manuscriptcentral.com/> and authors can contact Stacey Weber at [tvlsiadm@princeton.edu](mailto:tvlsiadm@princeton.edu) for further assistance.

#### *Important Dates:*

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