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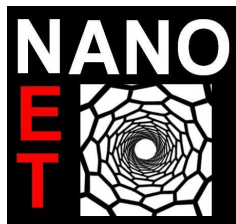
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# Nano-Net 2007: 2<sup>nd</sup> International Conference on Nano-Networks



Catania, Italy  
September 24-26, 2007  
[www.nanonets.org](http://www.nanonets.org)



**Sponsored by ICST**

**In Cooperation with ACM  
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Accepted papers will be published in the **ACM International Conference Proceedings Series** and will be made available in **ACM Digital Library**, as well as indexed by EI and ISI Index.

## CALL FOR PAPERS

**SCOPE:** The Nano-Net conference positions itself at the intersection of two worlds, namely, emerging nano-technologies on one-side, and network/communication theory on the other side. The standing question that this conference will address is: What are the new communication paradigms that derive from the transition from micro- to nano-scale devices? The related degrees of freedom and constraints associated with these new technologies will change our notions about efficient network and system design. Nano-Net provides a multi-disciplinary forum for the discussion of new techniques in modeling, design, simulation, and fabrication of network and communication systems at the nano-scale.

**PUBLICATION:** All submitted papers will be subject to a rigorous peer-review. Accepted papers will be available online through ACM Digital Library. A selected number of high-quality papers will be considered for publication in the ACM Journal on Emerging Technologies in Computing Systems (JETC). Also, selected papers with a strong nanoscale device component will be reviewed for publication in a Special Section of the IEEE Transactions on Nanotechnology.

**PAPERS:** The conference invites original technical papers that have not been previously published and are not currently under review for publication elsewhere. Contributions addressing all subjects pertaining to nano-technology & networking are solicited. Suggested topics include, but are not limited to, the following.



<b>1. Networks-on-Chip (NoC)</b>
Network architectures and topologies, NoC performance and trade-off analysis, Energy efficiency and power management, CAD flows for NoCs and MP-SoC platforms, Fault tolerance and reliability issues
<b>2. Innovative System Interconnects</b>
Nano-technologies and devices for on-chip interconnects (CNTs, semic., metallic and DNA-templated nanowires), Molecular, optical and wireless interconnects, Interconnects for non-charge-based devices
<b>3. Architectures and Systems for Nano-Networks</b>
Implications of nano-networks on processor and memory architectures, New computing paradigms for nano-networks, Hybrid CMOS-nano network systems, Self-organization in nano-scale systems
<b>4. Novel Information Theory Aspects of Nano-Networks</b>
Re-configurability of nano-networks, Statistical mechanics approach to nano-communications, Routing/addressing issues in nano-networks, Nano-coding, Applications of complex networks th
<b>5. Modeling, and Simulation of Nano-Networks</b>
Physical characterization/modeling of nano-scale interconnects and devices, Fault-tolerant aspects of nano-devices, Self-healing properties of nano-networks, "Nano-CAD", Bio-inspired aspects

**SUBMISSION INSTRUCTIONS:** Prospective authors are encouraged to submit a PDF version of the full paper in English. Papers are limited to 5 two-column pages, in a font no smaller than 10-points. Style guides and further information are available on the conference website: <http://www.nanonets.org>. Presentation will be either oral or in poster format, as deemed appropriate by the Technical Program Committee.

**SPECIAL SESSIONS:** Proposals for Special Sessions, especially focusing on future applications of nano-networks are encouraged. Potential Special Session organizers should submit a proposal of at most 5 pages, including scope/motivation of the session, list of invited papers (still subject to peer-review) and short-bio of the organizer(s). Proposals should be submitted by e-mail to: [special-sessions@nanonets.org](mailto:special-sessions@nanonets.org)

**Paper submission deadline: June 15, 2007**

Notification date: July 15, 2007

Camera Ready: August 1, 2007

