



Gregory Timp
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Prof. Gregory Timp received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology in 1984 under the direction of Mildred Dresselhaus. From 1984-1986, he pursued his post-doctoral studies in low temperature transport and nanostructure physics with Alan Fowler of I.B.M. He joined Bell Laboratories in 1986, where he continued to pursue nanostructure physics. As part of one collaboration, he investigated low temperature transport in electron waveguides; high mobility nanostructures so short that the transport is ballistic. In another effort, he explored the use of optical traps and laser focusing of single atoms for lithography applications. He joined the Department of Electrical and Computer Engineering and the Beckman Institute for Advanced Science and Technology at the University of Illinois in 2000. He has since become an affiliate of the Institute for Genomic Biology and the Center for Biophysics and Computational Biology. The Timp Nano-Bio Group does research at the boundary between biology and nanoelectronics. A list of projects includes: using nanopore sensors to detect the electronic structure of biomolecules; using optical tweezers to manipulate nanoparticles and living cells into large arrays; and super high frequency >30GHz circuit design using RFMOSFETs. In some recent work, the research group measured world record RF performance in a 30nm gate length MOSFET.

Honors and Affiliations:

- Fellow, American Association for the Advancement of Science
- Fellow, Founding Member, American Academy of Nanomedicine
- Fellow, American Physical Society
- Fellow, Institute of Electrical and Electronic Engineers
- Member, American Biophysical Society
- Member, American Vacuum Society
- Member, Electrochemical Society