

ICN+T 2008

Keystone Resort & Conference Center
Keystone, Colorado USA
July 20 - 25, 2008

INTERNATIONAL CONFERENCE ON NANOSCIENCE + TECHNOLOGY

Call for Abstracts:

Deadline: April 4, 2008

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Qi-Kun Xue, *The Chinese Academy of Sciences, China*

Plenary Speakers

Andre Geim, *University of Manchester, UK*
Charles Lieber, *Harvard University, USA*
Seizo Morita, *Osaka University, Japan*
George Whitesides, *Harvard University, USA*
Ali Yazdani, *Princeton University, USA*

Invited Speakers

Joanna Aizenberg, *Harvard University, USA*
Ken Babcock, *Affinity Biosensors, USA*
Harald Brune, *EPFL, Lausanne, Switzerland*
Robert Carpick, *University of Pennsylvania, USA*
Harold Craighead, *Cornell University, USA*
Mike Crommie, *University of California at Berkeley, USA*
Kamil Ekinci, *Boston University, USA*
Phillip First, *Georgia Institute of Technology, USA*
Linus Froberg, *Lund University, Sweden*
Michael Fuhrer, *University of Maryland, USA*

Andreas Fuhrer, *University of New South Wales, Sydney, Australia*
Hiroshi Fukuyama, *University of Tokyo, Japan*
Dan Gammon, *NRL, Washington D.C., USA*
Hermann Gaub, *University of Munich, Germany*
David Ginger, *University of Washington, USA*
Peter Grutter, *McGill University, Montreal, Canada*
Chris Hammel, *The Ohio State University, Columbus, USA*
Cyrus Hirjibehedin, *University College London, UK*
Saw-Wai Hla, *Ohio University, Athens, USA*
Eric Hudson, *Massachusetts Institute of Technology, Boston, USA*
Mark Hybertsen, *Brookhaven National Laboratory, Brookhaven, USA*
Thomas Jung, *Paul Scherrer Institute, Switzerland*
Yousoo Kim, *RIKEN, Japan*
Bill King, *University of Illinois Urbana-Champaign, USA*
Paul Koenraad, *Eindhoven University of Technology, The Netherlands*
Jim Kushmerick, *NIST, Gaithersburg, USA*
Konrad Lehnert, *NIST, Boulder, USA*
Henri Lezec, *NIST, Gaithersburg, USA*
Nicolás Lorente, *CSIC-ICN, Bellaterra, Spain*
Xucun Ma, *Tsinghua University, Beijing, China*
Hari Manoharan, *Stanford University, USA*
Hareem Maune, *California Institute of Technology, USA*
Anders Mikkelsen, *Lund University, Sweden*
Karina Morgenstern, *University of Hannover, Germany*
Sang-il Park, *Park Systems, Korea*
Dan Ralph, *Cornell University, USA*
Jascha Repp, *University of Regensburg, Germany*
Christian Schonenberger, *Basel University, Switzerland*
Alexander Schwarz, *University of Hamburg, Germany*
Paul Sheehan, *NRL, Washington D.C., USA*
Ken Shih, *University of Texas at Austin, USA*
Kazu Suenaga, *National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*
Wolfgang Wernsdorfer, *Laboratoire Louis Néel, Grenoble, France*
Jens Wiebe, *University of Hamburg, Germany*
Gyu Chul Yi, *Postech University, Korea*

Molecular and Nanoelectronics

Invited Speakers:

L. Froberg, *Lund University, Sweden*
Andreas Fuhrer, *University of New South Wales, Sydney, Australia*
Mark Hybertsen, *Brookhaven National Laboratory, USA*
Jim Kushmerick, *NIST, USA*
Anders Mikkelsen, *Lund University, Sweden*
Dan Ralph, *Cornell University, USA*
Christian Schoenenberger, *Basel University, Switzerland*
Gyu Chul Yi, *Postech University, Korea*

- MN1 Nanowires
- MN2 Electrical Transport in Nanostructures
- MN3 Electrical Transport through Molecules
- MN4 Molecules on Surfaces
- MN5 Novel Circuit Architecture
- MN6 Molecular and Nanoelectronics Poster Session

Nanoscale Measurements of Novel Materials

Invited Speakers:

Mike Crommie, *University of California at Berkeley, USA*
Phillip First, *Georgia Institute of Technology, USA*
Michael Fuhrer, *University of Maryland, USA*
Eric Hudson, *MIT, USA*
Paul Koenraad, *Eindhoven University of Technology, The Netherlands*
Xucun Ma, *Tsinghua University, China*
Karina Morgenstern, *University of Hannover, Germany*
Ken Shin, *University of Texas at Austin, USA*

- NM1 Surface Structure
- NM2 Surface Electronic Structure
- NM3 Surface Chemistry and Catalysis
- NM4 Self-Assembly and Self-Organization
- NM5 Clusters and Nanoparticles
- NM6 Fullerenes, Carbon Nanotubes, Graphene
- NM7 Metals, Semiconductors, and Insulators
- NM8 Superconductivity
- NM9 Low-Dimensional Electron Systems and Quantum Hall Effect
- NM10 Nanoscale Measurements of Novel Materials Poster Session

Nanobiology, Nanomedicine, and Nanofluidics

Invited Speakers:

Joanna Aizenberg, *Harvard University, USA*
Hermann Gaub, *University of Munich, Germany*
Thomas Jung, *Paul Scherrer Institute, Switzerland*
Ken Babcock, *Affinity Biosensors, USA*
Hareem Maune, *California Institute of Technology, USA*
Kazu Suenaga, *National Institute of Advanced Industrial Sci & Tech, Japan*

- NN1 Biomolecular Interactions
- NN2 Imaging of Biomolecules, Membranes, and Cells
- NN3 Biological Motors
- NN4 Nano-implants
- NN5 Bio-Nanosensors
- NN6 Microfluidics, Nanofluidics, and Lab-on-a-Chip
- NN7 Nanobiology, Nanomedicine, and Nanofluidics Poster Session

Nanosystems, Nanomechanics, and Nano-optics

Invited Speakers:

Robert Carpick, *University of Pennsylvania, USA*
Harold Craighead, *Cornell University, USA*
Kamil Ekinci, *Boston University, USA*
David Ginger, *University of Washington, USA*
Saw-Wai Hla, *Ohio University, USA*
Yusoo Kim, *RIKEN, Japan*
Bill King, *University of Illinois at Urbana-Champaign, USA*
Konrad Lehnert, *NIST, USA*
Henri Lezec, *NIST, USA*
Jascha Repp, *University of Regensburg, Germany*
Paul Sheehan, *NRL, USA*

- NO1 Single Atom and Single Molecule Manipulation
- NO2 Nanofabrication and Nanostructures
- NO3 NEMS
- NO4 Nanotribology
- NO5 Near Field Optical Spectroscopy, Plasmon Optics, Nano Optics
- NO6 Optical Tweezers
- NO7 Nanosystems, Nanomechanics, and Nano-optics Poster Session

Quantum Computing, Spintronics, and Nanomagnetism

Invited Speakers:

Harald Brune, *EPFL, Switzerland*
Dan Gammon, *NRL, USA*
Cyrus Hirjibehedin, *University College, UK*
Wolfgang Wernsdorfer, *Laboratoire Louis Neel, France*

- QC1 Spins and Spin-Qubits in Quantum Dots, Decoherence of Qubits
- QC2 Spin Detection, Spin Injection, and Spin Transport
- QC3 Control of Nuclear Spins
- QC4 Superconducting Qubits
- QC5 Spin-Optoelectronics
- QC6 Spin Hall Effect and Magnetic Semiconductors
- QC7 Nanomagnetism, Molecular Magnetism, Magnetic Nanostructures
- QC8 Quantum Computing and Spintronics Poster Session

Scanning Probe Microscopy and Instrumentation

Invited Speakers:

Hiroshi Fukuyama, *University of Tokyo, Japan*
Peter Grutter, *McGill University, Canada*
Chris Hammel, *The Ohio State University, USA*
Nicolas Lorente, *CSIC-ICN, Spain*
Hari Manoharan, *Stanford University*
Sang-Il Park, *Park Systems, Korea*
Alexander Schwarz, *University of Hamburg, Germany*
Jens Wiebe, *University of Hamburg, Germany*

- SP1 Spin-sensitive SPM
- SP2 Tunneling Spectroscopy
- SP3 STM Induced Light Emission
- SP4 Non-contact Force Microscopy and Force Measurements
- SP5 Low Temperature SPM
- SP6 High Frequency SPM
- SP7 Novel SPM Techniques
- SP8 Multiprobe SPM
- SP9 Ultrasonics and AFM
- SP10 SPM Theory
- SP11 Scanning Probe Microscopy and Instrumentation Poster Session

ABSTRACT INSTRUCTIONS

Email and web submission deadline: 11:00 p.m. ET, Friday, April 4, 2008

Email your abstract in this format to icnt08@avs.org or fill out this information on <http://www.avsConferences.org>. The web page also has a blank email form you can download. Within three weeks you will receive an email acknowledgment. Please do not send duplicate submissions. Please follow this format. All field names must begin with the '\$' character, and the data must be contained within a pair of braces '{}', as shown. Delete or ignore lines that don't apply to your submission.

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*****Please Note: An author may present one (1) paper only (either ORAL or POSTER) at the Conference.*****

PLEASE DO NOT CHANGE THE FORMAT

Keep it in plain ASCII text. Use both upper and lower case letters since the program will be printed directly from your submission. Please be careful since no one proofreads the final text. What you submit is what will be printed.

Special Character Codes: All codes must be placed within a pair of '@' characters. Do not use the '@' character anywhere else in your abstract text. You can use '@' to enter email addresses.

Item	Coding	Sample	Sample Code
Footnote	@footnote n@		@footnote 1@
Subscript	@sub n@	H ₂ O	H@sub 2@O
Superscript	@super n@	x ²	x@super 2@
Micron	@micron@	μm	
Ohm	@ohm@	Ω	
Greek (uc)	@THETA@	Θ	
Greek (lc)	@theta@	θ	
>=	@>=@	≥	
<=	@<=@	≤	
+ -	@+-@	±	
Square root	@sr@	√	
Degree sign	@degree@	°	
At sign	@@	@	usr@@mail.org
Angstrom	@Ao@	Å	
Umlaut	@um A@	Ä	
Tilde	@td A@	Ã	
Accent-grave	@ag A@	À	
Accent-ague	@aa A@	Á	

Pictures/figures will not be accepted.

BEGINNING of ABSTRACT FORM

\$Title {Enter abstract title, using both upper & lower case characters}

Next: Enter the name and contact information of the one person designated as the correspondent. If the correspondent is also an author, fill in the \$CorrespondentAuthorNumber field with this author's order in the author list. (In many cases this will be a 1.) Please enter 'NA' if the correspondent is not an author. Do not list the correspondent again with the other authors.

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Next: Enter the names of all other authors. Do not repeat the correspondent. Only one person can be the presenter, and no one can present more than one paper at the Conference. Repeat these lines for additional authors, or ignore

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Next: From the Call for Papers, enter the single Session Code (e.g., AS2) you think most appropriate. Abstracts may be placed into other sessions.

\$SessionCode {**You must include one and only one session code.**}

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Next: Do you plan to submit the paper for publication? If so you must also suggest **FOUR** referees (**2 should be from the U.S. Full manuscripts will be due on August 18, 2008**)

\$Publication? {Y or N}

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\$Initials {}

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\$Department {}

\$Street {}

\$City {}

\$State {}

\$PostalCode {}

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\$Fax {}

Next: Enter the body of the abstract below, maximum of 2500 characters.

\$Body {The abstract goes here. The closing brace must be included at the end. Figures cannot be submitted. The only special characters available are those in the table above. Enter chemical names and formulas using these codes. Footnote and/or reference locations should be indicated using the footnote format code @footnote n@, where 'n' is the footnote number. The footnote code should immediately follow the referenced text (do not leave any blank spaces). e.g. This is a sentence of referenced text.@footnote n@ }
\$Footnotes {The footnote text goes in this section, with @footnote n@ preceding each footnote. The number 'n' should match the number you used in the abstract text. Footnotes can also be included in the abstract title using the @footnote n@ code. Make sure each footnote has a unique number. }

END of ABSTRACT FORM

Submit Your Abstract: Send this file to icnt08@avs.org or submit on-line before 11:00 PM ET, Friday, April 4, 2008

Conference rooms will be set up with screens, microphones, LCD projectors, and laptops (PCs). Requests for VCRs, TV's, and slide projectors will be considered on a case-by-case basis. Please contact the Program Chair by May 15 with requests. POSTER sessions will consist of display boards approximately 46" tall by 44" wide. There will be limited provision for electricity and no A/V capability at the poster session.