



Monthly Newsletter for July 2011

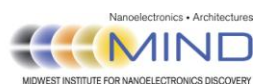
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R E S E A R C H I N I T I A T I V E

Dr. Jeffrey Welser, Director

NRI Review Season

SAVE THE DATE!

The Center Reviews and NRI Annual Review dates are set, put them on your calendar now so you won't forget. More info to come:



MIND Onsite Review (preceded by the **NRI Architecture & Benchmarking Workshop**). Workshop on Tuesday, August 16, Review on Wednesday and Thursday, August 17 & 18. Both events will be held at McKenna Hall, Notre Dame, South Bend, IN. [REGISTRATION IS NOW OPEN!](#)



SWAN Onsite Review (preceded by **Techcon**): Review on Wednesday and Thursday, September 14 & 15 at the AT&T Conference Center in downtown Austin, TX. [REGISTRATION IS NOW OPEN!](#)



INDEX Onsite Review: Wednesday and Thursday, September 21 & 22 at CSNE at SUNY-Albany, Albany, NY.



WIN Onsite Review: Thursday & Friday, October 7 & 8 at UCLA, Los Angeles, CA.



NRI Annual Review: Tuesday, Wednesday & Thursday, October 25, 26 & 27 at the Crowne Plaza Hotel in Rockville, MD (a few off-ramps south of NIST).

NRI Calendar of Upcoming Events

July 26: [e-Workshop: Mixed Technology Architectures](#), via WebEx

August 3: **NRI TPG Meeting**, via WebEx

August 9: **University of Alabama NSF-NRI Liaison Team Visit** (team members only)

August 19: **Purdue NSF-NRI Liaison Team Visit** (team members only)

August 22: **Stanford NSF-NRI Liaison Team Visit** (team members only)

August 23: **UC-Berkeley NSF-NRI Liaison Team Visit** (team members only)

August 30: [e-Workshop: Alexander Kozhanov from UC-Santa Barbara](#), via WebEx

New Publications

NOTE: All the NRI Center's Mid-Year Reports are currently available to the GC, TPG and Assignees/Liaisons at <http://www.src.org/program/nri/advisory-board/tpg/?tab=nri-centers> , click on the link "Semi and Year-End Annual Reports".

Don't forget to submit your new publications to NRI regularly – see the "University Requests" section below for more information. Following are all publications submitted since June 23, 2011. *Remember that anything marked as a Pre-Publication should NOT be shared outside of the NRI member community.*

**Pre-publication – do not distribute outside of NRI.*

WIN CENTER – 4 publication, 4 pre-pub

[*Exploring the Thermodynamic Limits of Computation in Integrated Systems: Magnetic Memory, Nanomagnetic Logic and the Landauer Limit \(Plus Supplement\)](#)

[*Exploring the Thermodynamic Limits of Computation in Integrated Systems: Magnetic Memory, Nanomagnetic Logic and the Landauer Limit](#)

[*Supplement to Exploring the Thermodynamic Limits of Computation in Real Systems: Magnetic Memory, Nanomagnetic Logic and the Landauer](#)

[*Oxide-confined Formation of Ge Nanowire Heterostructures for High-Performance Transistors](#)
[Micromagnetic Understanding of Stochastic Resonance Driven by Spin-Transfer-Torque](#)
[Micromagnetic Simulations of Magnetization Dynamics in a Nanowire Induced by a Spin-polarized Current Injected via a Point Contact](#)

[Deep Subnanosecond Spin Torque Switching in Magnetic Tunnel Junctions with Combined in-Plane and Perpendicular Polarizers](#)

[Electrical Spin Injection and Transport in Germanium](#)

[The Effect of Chemical Residues on the Physical and Electrical Properties of Chemical Vapor Deposited Graphene Transferred to SiO₂](#)

INDEX CENTER – 0 publication, 0 pre-pubs

SWAN CENTER – 2 publication, 0 pre-pubs

[The Effect of Chemical Residues on the Physical and Electrical Properties of Chemical Vapor Deposited Graphene Transferred to SiO₂](#)

[Spin-Polarized to Valley-Polarized Transition in Graphene Bilayers at n=0 in High Magnetic Fields](#)

MIND CENTER – 0 publications, 0 pre-pubs

NORTHWESTERN – 13 publications, 1 pre-pub

[*A Scalable, CMOS-Compatible Assembly of Ambipolar Semiconducting Single-Walled Carbon Nanotube Devices](#)

[Printed, Sub-3V Digital Circuits on Plastic from Aqueous Carbon Nanotube Inks](#)

NORTHWESTERN (cont'd)

[Sorting Single-Walled Carbon Nanotubes by Electronic Type Using Nonionic, Biocompatible Block Copolymers](#)

[Enhancing and Redirecting Carbon Nanotube Photoluminescence by an Optical Antenna](#)

[Probing Exciton Localization in Single-Walled Carbon Nanotubes Using High-Resolution Near-Field Microscopy](#)

[The Polarized Carbon Nanotube Thin Film LED](#)

[Pure Optical Dephasing Dynamics in Semiconducting Single-walled Carbon Nanotubes](#)

[Properties and Application of Double-Walled Carbon Nanotubes Sorted by Outer-Wall Electronic Type](#)

[Coherent Injection and Control of Ballistic Charge Currents in Single-walled Carbon Nanotubes and Graphite](#)

[Hydrogen Sensing with Diameter- and Chirality-Sorted Carbon Nanotubes](#)

[High-Concentration Aqueous Dispersions of Graphene Using Nonionic, Biocompatible Block Copolymers](#)

[Nearly Single-Chirality Single-Walled Carbon Nanotubes Produced via Orthogonal Iterative Density Gradient Ultracentrifugation](#)

[Exciton Dynamics in Semiconducting Carbon Nanotubes](#)

[Optical and Electrical Properties of Inner Tubes in Outer Wall-Selectively Functionalized Double-Wall Carbon Nanotubes](#)

University Requests

Pub Submission: it's your duty! Please send them to [Allison](#) when you *first* send in your paper to the publication for review and she will do the rest! No usernames or passwords to remember, just attach the pub, hit "SEND" and you will be in compliance with your Center's contract. Of course, it's up to our university members to get those pubs into us so please send us your papers and presentations. We might even start a contest for most pubs!

Any student or Postdoctoral Researcher participating in SRC research is required to register for an SRC web account, whether they are directly funded by the contract or leveraged from another source. That's right, if you are an NRI supported student all you have to do is follow these simple directions on the new SRC website:

Students or Postdoctoral researchers new to SRC:

- Go to the SRC website at <https://www.src.org/app/account/sign-in/> to register for a web account including completing the academic information portion of the form. We recommend that all students upload their resume. Our member companies have recruiters that look at this site first when they have positions to fill.

Student or postdocs who have previously been on SRC research:

- Update your graduation date, advisor, research task # and resume at <https://www.src.org/app/account/edit/education/>

Please be sure *all* your NRI students and post-docs are registered on the website and that their information (particularly *graduation date*) is current. For questions or help contact leeann.clewell@src.org

Should you have any questions, ideas, information to share, website issues or just want to talk about NRI, please call or email [Allison](#) at 919-941-9433, she will be happy to help!

If you no longer are interested in receiving the NRI Newsletter, please reply to this email saying so and you will be removed from the list.