

## **RIKEN/LUND/HARVARD International Joint Symposium on Nanoengineering and Functional Materials**

Date: November 16<sup>th</sup>, 17<sup>th</sup>, 2009

Place: Ohkochi Hall, RIKEN, Wako Campus

### **Program**

16<sup>th</sup>

Chair: Koji Ishibashi (RIKEN)

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| 10:00-10:10: | Opening Address<br>Kohei Tamao (Director of ASI, RIKEN)   |
| 10:00-10:20: | Welcome Address<br>Yoshiharu Doi (Executive Director, RIKEN)  |
| 10:20-10:50: | Robert Westervelt (Harvard)<br>“Imaging Universal Conductance Fluctuations in Graphene”                       |
| 10:50-11:20: | Maki Kawai (RIKEN)<br>“Single molecule spectroscopy using STM”  |
| 11:20-11:50: | Marco Loncar (Harvard)<br>“Optical Nanostructures for Advanced Communication Systems”                         |
| 11:50-12:20: | Peter Samuelson (Lund)<br>“Entanglement at finite temperatures in the electronic two-particle interferometer” |
| 12:20-13:40: | Lunch and Lab.tour  |

Chair: Tamotsu Zako (RIKEN)

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|-------------|---|
| 13:40-14:10 | Kazuo Hosokawa (RIKEN)<br>“Microfluidic bioanalytical devices for point-of-care diagnosis”                |
| 14:10-14:40 | Christelle Prinz (Lund)<br>“Semiconductor nanowires in biology”   |
| 14:40-15:10 | Erik Heller (Harvard)<br>“Imaging electron transport in 2DEGS and graphene”                               |
| 15:10-15:40 | Mike Stopa (Harvard)<br>“Feedback between nuclear spin inhomogeneity and electron states in a double dot” |

15:40-16:10      Break

Chair: Amir Yacoby (Harvard)

16:10-16:40      Akira Furusaki (RIKEN)

“Asymmetric zero-bias anomaly for strongly interacting electrons in one dimension”

16:40-17:10      Keiji Ono (RIKEN)

“Spin dependent transport in g-factor-modulated quantum dots”

17:10-17:40:      Franco Nori (RIKEN)

“Atomic physics and quantum optics using circuits: a brief overview of superconducting qubits”

18:00-19:30

Reception at Hirosawa Club (RIKEN)

17<sup>th</sup>

Chair: Hongqi Xu (Lund)

9:30-10:00:      Knut Deppert (Lund)

“Control of morphology and internal structure of epitaxial III-V nanowire structures”

10:00-10:30:      Evelyn Hu (Harvard)

“Single quantum dot-photonic crystal cavity: strong coupling and cavity feeding”

10:30-11:00:      Takuo Tanaka (RIKEN)

“Plasmonic metamaterials: their properties, fabrication technique, and applications”

11:00-11:30:      Heiner Linke (Lund)

“Thermoelectric effects in heterostructure nanowires”

11:30-12:00:      Leslie Vogt (Harvard)

“Finding Organic Semiconductor and Photovoltaic Materials Using Distributed Computing”

12:00-13:00:      Lunch

Chair: Keiji Ono (RIKEN)

- 13:00-13:30: Naoto Nagaosa (RIKEN/Tokyo)  
 “Spin Hall effect in semiconductors, insulators, and superconductors”
- 13:30-14:00: Hongqi Xu (Lund)  
 “Giant g-factors, Kondo physics, and anomalous spin-correlated blockade in few-electron InSb nanowire quantum dots”
- 14:00-14:30: Masashi Kawasaki (RIKEN/Tohoku)  
 “Quantum phenomena at gated oxide-interfaces”
- 14:30-15:00: Amir Yacoby (Harvard)  
 “Broken Symmetry States and Divergent Resistance in Suspended Bilayer Graphene”
- 15:00-15:30: Break
- Chair: Mike Stopa (Harvard)
- 15:30-16:00: Lars Samuelson (Lund)  
 “Semiconductor nanowires for nanoelectronic and nanophotonic devices”
- 16:00-16:30: Yoshi Tokura (RIKEN/Tokyo)  
 “Dynamical magnetoelectric effects in multiferroics”
- 16:30-17:00: Koji Ishibashi (RIKEN)  
 “Carbon nanotube quantum dots and molecular-scale nanostructures”
- 17:00-17:20: Closing Remark  
 Robert Westervelt and Lars Samuelson
- 17:30- Ad hoc meeting with food and drink at Ikebukuro (move by bus)

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