

"An open world of physics: A celebration of Sankar Das Sarma's research career on his 60th birthday"

Saturday **March 16** and Sunday **March 17, 2013***

Venue **University of Maryland**

* This is the weekend prior to the 2013 APS March meeting in Baltimore, which might allow some participants the convenience of combining the two meetings into one trip

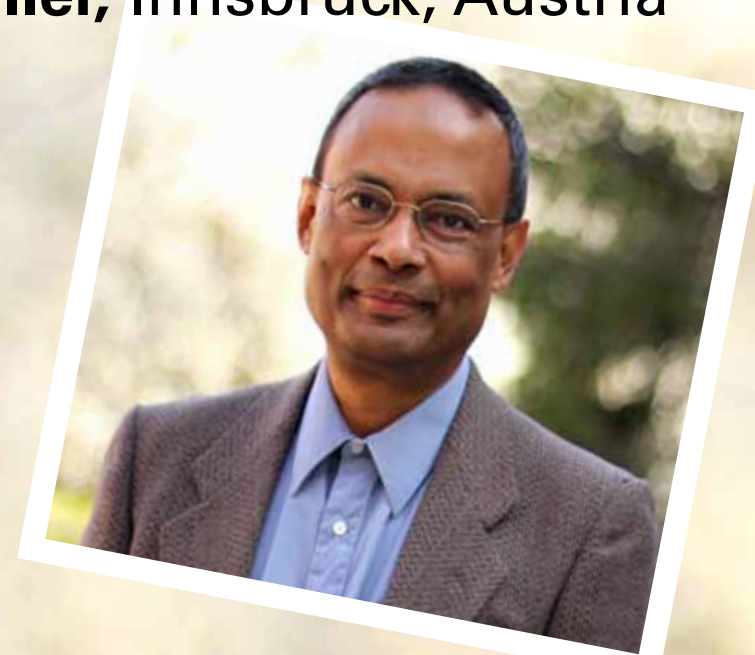
Confirmed Speakers

Eugene Demler, Harvard, Massachusetts **Matthew Fisher**, UCSB, California **Michael Freedman**, Microsoft, California **Steve Girvin**, Yale, Connecticut **Bert Halperin**, Harvard, Massachusetts **Philip Kim**, Columbia, New York **Klaus von Klitzing**, Stuttgart, Germany **Leo Kouwenhoven**, Delft, Netherlands **Tony Leggett**, UIUC, Illinois **Allan Macdonald**, UT-Austin, Texas **Charlie Marcus**, Copenhagen, Denmark **Andy Millis**, Columbia, New York **Bill Phillips**, NIST and UMD College Park, Maryland **Aron Pinczuk**, Columbia, New York **Subir Sachdev**, Harvard, Massachusetts **Amir Yacoby**, Harvard, Massachusetts **Peter Zoller**, Innsbruck, Austria

Organizing Committee

Shaffique Adam, Yale-NUS College, Singapore
Janet Das Sarma, University of Maryland
Victor Galitski, University of Maryland
Jainendra Jain, Pennsylvania State University
Chetan Nayak, UCSB, California
XinCheng Xie, Peking University, China

http://terpconnect.umd.edu/~galitski/SDS_Workshop/



AN OPEN WORLD OF PHYSICS

MARCH 16 - 17
2013

A CELEBRATION OF SANKAR DAS SARMA'S RESEARCH CAREER
ON HIS 60TH BIRTHDAY

PROGRAM

University of Maryland
College Park, MD

Organizing Committee:

Shaffique Adam, Yale-NUS College, Singapore

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Students and postdocs mentored by Sankar Das Sarma:

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SATURDAY, MARCH 16, 2013

MORNING AGENDA

8:00am - 9:00am **Breakfast & Registration (Grand Ballroom Lounge)**

9:00am - 9:15am **Welcome (Grand Ballroom)**

Jayanth Banavar, Dean, College of Computer, Mathematical and
Natural Sciences, University of Maryland

Session 1 (Grand Ballroom)

Chair: Jainendra Jain, Pennsylvania

9:15am - 9:55am Klaus von Klitzing, Stuttgart, Germany
News from Quantum Hall Effect

9:55am - 10:35am Bill Phillips, NIST, Maryland
Atomic Physics Meets Condensed Matter

10:35am - 11:00am **Coffee Break (Grand Ballroom Lounge)**

11:00am - 11:40am Subir Sachdev, Harvard, Massachusetts
Entanglement, Holography and the Quantum Phases of Matter

11:40am - 12:20pm Andy Millis, Columbia, New York
*"First-principles" Theory of Correlated Electrons: DFT+DMFT and the Mott
Paradigm in Transition Metal Oxides*

12:20pm - 1:45pm **Lunch (Colony Ballroom)**

SATURDAY, MARCH 16, 2013

AFTERNOON AGENDA

Session 2 (Grand Ballroom)

Chair: Shaffique Adam, Singapore

- 1:45pm - 2:25pm Philip Kim, Columbia, New York
Ultimate Conductivity Limit in Graphitic Carbon
- 2:25pm - 3:05pm Leo Kouwenhoven, Delft, Netherlands
Majorana in Nanowires
- 3:05pm - 3:30pm **Coffee Break (Grand Ballroom Lounge)**
- 3:30pm - 4:10pm Tony Leggett, UIUC, Illinois
The Berry Phase of a Quasiparticle in a Rotating Fermi Superfluid
- 4:10pm - 4:50pm Allan MacDonald, UT Austin, Texas
Landau Level Mixing and Interactions in the Fractional Quantum Hall Effect
- 4:50pm - 5:30pm Bert Halperin, Harvard, Massachusetts
Fractional Quantized Hall States in the Zeroth Landau Level of Graphene
- 6:00pm - 9:30pm **Banquet Dinner (Colony Ballroom)**
Cocktail hour begins at 6:00pm; dinner begins at 6:30pm
Steve Girvin, Master of Ceremonies

Banquet Dinner Speakers (in order of appearance):

John Quinn (University of Tennessee)	Mike Lilly (Sandia National Labs)
Vic Korenman (University of Maryland)	Ady Stern (Weizmann Institute, Israel)
Bob Joynt (University of Wisconsin)	Vito Scarola (Virginia Tech)
Steve Girvin (Yale University)	David Reilly (University of Sydney, Australia)
Rodolfo Jalabert (University of Strasbourg, France)	Shaffique Adam (Yale-NUS College, Singapore)
Mike Stopa (Harvard University)	Roman Lutchyn (Microsoft Research)
Michael Fisher (University of Maryland)	Drew Baden (University of Maryland)
Chetan Nayak (UCSB/Microsoft)	

SUNDAY, MARCH 17, 2013

AGENDA

8:00am - 9:00am **Breakfast & Registration (Grand Ballroom Lounge)**

Session 3 (Grand Ballroom)

Chair: Chetan Nayak, California

9:00am - 9:40am Matthew Fisher, UCSB, California
A 3D Boson Topological Insulator and the Statistical Witten Effect

9:40am - 10:20am Michael Freedman, Microsoft, California
Fusion of Topological Wires as a Computational Primitive

10:20am - 10:45am **Coffee Break (Grand Ballroom Lounge)**

10:45am - 11:25am Amir Yacoby, Harvard, Massachusetts
Quantum Information Processing and Metrology Using Few Electron Spins in Solids

11:25am - 12:05pm Charlie Marcus, Copenhagen, Denmark
The Resonant Exchange Qubit

12:05pm - 1:30pm **Lunch (Colony Ballroom)**

Session 4 (Grand Ballroom)

Chair: Victor Galitski, Maryland

1:30pm - 2:10pm Peter Zoller, Innsbruck, Austria
Quantum Simulation of Non-Abelian Lattice Gauge Theories with Cold Atoms

2:10pm - 2:50pm Eugene Demler, Harvard, Massachusetts
Exploring Topological States with Cold Atoms and Photons

2:50pm - 3:15pm **Coffee Break (Grand Ballroom Lounge)**

3:15pm - 3:55pm Aron Pinczuk, Columbia, New York
Magnetorotons in Fractional Quantum Hall Liquids

3:55pm - 4:35pm Steve Girvin, Yale, Connecticut
Quantum Engineering (Really) Big Schrödinger Cats

4:35pm - 4:50pm Closing remarks by Sankar Das Sarma

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NOTES

SHUTTLE TRANSPORTATION AND PARKING INFO

Shuttle between the Marriott Greenbelt Hotel and Stamp Student Union

Saturday, March 16th

Morning Schedule

Departs the Marriott at 7:45am and arrives at the Student Union at 8:00am

Departs the Marriott at 8:00am and arrives at the Student Union at 8:15am

Departs the Marriott at 8:15am and arrives at the Student Union at 8:30am

Evening Schedule

Departs the Student Union at 9:00pm

Departs the Student Union at 9:30pm

Sunday, March 17th

Morning Schedule

Departs the Marriott at 8:00am and arrives at the Student Union at 8:15am

Departs the Marriott at 8:15am and arrives at the Student Union at 8:30am

Departs the Marriott at 8:30am and arrives at the Student Union at 8:45am

Evening Schedule

Departs the Student Union at 5:00pm

Departs the Student Union at 5:15pm

Parking Information

Option 1: Pay Stations in Union Lane Garage

Union Lane Garage is equipped with pay stations to purchase parking in increments of 15 minutes, hours, or the whole day.

There are pay stations located at the pedestrian entrances/exits to the garage. You can pay for time with a credit card or cash at any of the pay stations or with a credit card only by calling 888-580-PARK [7275].

1. Park in garage.
2. Take note of your space number.
3. Make payment.
4. Optional: Add additional time later either at a pay station or by using your cell phone.

The pay stations will issue a paper receipt for your records, which you do not need to display in your vehicle.

Note: Pay stations do not issue change.

Hours of Enforcement: 7 am to 2 am, seven days a week

Rates: \$3 per hour, with a \$5 per weekend day maximum.

Option 2: Free Parking In Lot 1

Anytime on Saturday and Sunday, visitors may park for free in Lot 1, the large surface lot just beyond the Cole Fieldhouse. Lot 1 is a 5-10 minute walk from the Stamp Student Union.
