Janet Das Sarma Memorial CMTC Conference December 18, 2021



SPEAKERS*

Meng Cheng (Yale)
Sophia Economou (Virginia Tech)
James Eisenstein (Caltech)
Herbert Fertig (U Indiana)
Victor Galitski (UMD)
Steven Girvin (Yale)
Bertrand Halperin (Harvard)
Charles Marcus (Microsoft
Copenhagen)
Chetan Nayak (Microsoft Q)
Jainendra Jain (Penn State)

(* tentative)

ORGANIZERS

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CONFERENCE DETAILS:

We are pleased to announce the 2021 Janet Das Sarma Memorial CMTC Conference, a scientific conference in memory of Janet Das Sarma, who played a crucial behind-the-scene role in making the Condensed Matter Theory Center at the University of Maryland (www.physics.umd.edu/cmtc/) a success and profoundly affected all aspects of the center. Janet was the only administrative assistant CMTC ever had, until her death on December 2, 2019 (https:// umdphysics.umd.edu/about-us/news/ department-news/1532-janet-dassarma-1971-2019.html). This one-day conference will be held at The Hotel at UMD on December 18, 2021, and will

include 9 scientific talks covering frontier areas of Condensed Matter physics that have been the center of activity at CMTC delivered by scientists who knew Janet the longest. The talks will be formal remembrances of Janet by the attendees, celebrating her role in the success of CMTC. The plan is for attendees to arrive on Friday December 17 and depart on Sunday December 19. This conference is by invitation-only and all local expenses (hotel, food, coffee, etc.) will be covered by CMTC. For those who want to spend a few extra days at CMTC doing physics, the appropriate office space will be available.



Condensed Matter
Theory Center
www.physics.umd.edu/cmtc

The 2021 Janet Das Sarma Memorial CMTC Conference





DECEMBER 18, 2021

The Hotel at the University of Maryland

Hosted by the Condensed Matter Theory Center

Saturday, December 18

8:00am-9:00am Breakfast

9:00am-9:10am Introduction

Quantum Hall Effect

9:10am-10:00am Bertrand Halperin, "Spin Waves and Skyrmions in Graphene Quantum

Hall States"

Chair: Bob Willett

10:00am-10:50am James Eisenstein, "From Independent Layers to Exciton Condensation: 30

Years of Fun and Games with Bilayer Quantum Hall Systems"

Chair: Bob Willett

10:50am-11:10am Coffee Break

11:10am-12:00pm Herbert Fertig, "Quantum Geometric Dipole in Collective Excitations"

Chair: Bob Willett

12:00pm-1:00pm Lunch

Quantum Computing

1:00pm-1:50pm Steven Girvin, " Adventures in Phase Space: Quantum Error Correction

with Bosonic Codes"
Chair: Bob Willett

1:50pm-2:40pm Sophia Economou, "Efficient Variational Quantum Algorithms"

Chair: Eugene Demler

2:40pm-3:00pm Coffee Break

Theory

3:00pm-3:50pm Chetan Nayak, "Floquet Time Crystals"

Chair: Eugene Demler

3:50pm-4:40pm Victor Galitski, "Universal Mechanism of Many-Body Quantum Chaos"

Chair: Eugene Demler

4:40pm-5:30pm Meng Cheng, "Defects and Disorder Operators in (2+1)d Quantum

Phases"

Chair: Eugene Demler

5:30pm-6:00pm Wine

6:00pm-7:30pm Dinner (and open mic*)

7:30pm Closing Remarks

*Beginning at 7pm, anyone is welcome to share a few words remembering Janet's remarkable career at CMTC