NCCAVS 2020 Technical Symposium
"The Quantum World"

Hosted by: CMPUG, JTG, PAG, and TFUG
www.avsusergroups.org

Held in conjunction with the NCCAVS 41st Annual Equipment Exhibition and 9th Annual Student Poster Session

Fremont Marriott Silicon Valley
46100 Landing Pkwy.
Fremont, CA
February 20, 2020

Technical Session: 9:45 a.m. – 4:30 p.m.
Exhibit: 10:00 a.m.-7:00 p.m.
Poster Session: 4:30 p.m.-6:30 p.m.

FREE TO ATTEND; FREE PARKING
REGISTER NOW!
(*includes exhibit attendance*)

EVENT SPONSOR

Agilent Technologies

Additional Sponsorship Provide by:

EVENT HOTEL
Fremont Marriott Silicon Valley
46100 Landing Pkwy, Fremont, CA
TO BOOK A ROOM, e-mail Christ Malocsay, chris_malocsay@avs.org

NCCAVS 2020 Technical Symposium Agenda:

9:45am Welcome and Introductions, Zoran Misetic, Director of Global Business Development, Kurt J. Lesker Company

Session 1: Quantum Computing
Session Co-Chairs: Lucia Feng, Jacques Matteau

10:00am Plenary Talk
"Modeling Systems with Quantum Computers", **Rudy J. Wojtecki, Ph.D**., Research Staff Member & IBM Q Ambassador, IBM Research – Almaden

10:45am "Optimizing Quantum Optimization Algorithms for Noisy Quantum Computers"
Davide Venturelli, Ph.D., Associate Director, Quantum Computing at USRA Research Institute for Advanced Computer Science

11:15am "Enterprise Software to accelerate the quantum revolution"
Chris Brown, Ph.D., Director of Quantum Solutions, Zapata Computing, Inc.

Lunch in the Exhibit Hall (*while supplies last*)

Session 2: Quantum Technology
Session Co-Chairs: Mayu Yamamura, Paul Werbaneth

1:30pm Plenary Talk
"Materials Engineering for Quantum Information Technology", **Robert Jan Visser, Ph.D.,** Vice President CTO Group, Applied Materials

2:15pm "Introduction of a new technology platform to enable scalable fabrication of single silicon vacancy defect arrays", **Andre Linden,** Director of International Business Development, Sales Manager and Applications Scientist, Raith America, Inc.,

2:45pm "Thin Film Fabrication of Quantum Upconverting Sensors for Dark Matter Detection", **Dale Li, Ph.D.,** SLAC National Accelerator Laboratory, Stanford University

Afternoon Break in the Exhibit Hall

Session 3: More Quantum Technology
Session Co-Chairs: Daphne Pappas, Paul Werbaneth

3:30pm "Cryogenic Device Testing and Quantum Protocol Design for Quantum Upconverting Sensors Below 300 MHz", **Stephen Kuenstner,** Stanford University

4:00pm "Superconducting quantum coherent circuits: introduction, challenges, and near-term applications", **John Mark Kreikebaum,** Lawrence Berkeley National Laboratory & Department of Physics, University of California Berkeley

4:30 – 6:30pm STUDENT POSTER SESSION

Poster Dimensions should be no larger than 48"W x 36"H

Poster Session Chair
Michael Oye, University of California Santa Cruz

Student Co-Organizers
H. Renee Sully, University of California Santa Cruz
Zeal Pancha, USRA

Judges
Michael Current, Current Scientific
Saba Hussain, Universities Space Research Association
Susan Felch, Susan Felch Consulting
Wenonah Vercoutere, NASA Ames Research Center

NCCAVS 2020 TECHNICAL SYMPOSIUM COMMITTEE
Program Chair: Zoran Misetic, zoranm@lesker.com
Past Program Chair: Paul Werbaneth, pfwerbaneth@gmail.com
CMPUG: David Hansen
JTG: Michael Current and Susan Felch
PAG: Lucia Feng
TFUG: Ya-His Hwang, Michael Oye, and Mayu Yamamura

Exhibit Chair
Chris Malocsay, chris_malocsay@avs.org