Workshop: Quantum Matters in Materials Science (QMMS), NIST, Gaithersburg, MD, USA, October 15-16, 2020, Virtual event, Eastern time

Schedule	October 15, 2020
10:30-10:40 AM	James Warren, Director MGI, NIST, Gaithersburg
10:40-11:00 AM	Francesca Tavazza, NIST, Gaithersburg, "High-throughput and Individual Investigation of Topological and Charge Density Wave Materials"
11:00-11:30 AM	John Martinis, UCSB and Google, "Quantum supremacy using a programmable superconducting processor"
11:30-12:00 Noon	Geoff Gardner, Purdue University and Microsoft, "Materials and MBE techniques for hybrid superconductor-semiconductor structures"
12:00-12:30 PM	David Vanderbilt, Rutgers University, "Axion Insulators and Surface Quantum Point Junctions"
12:30-1:00 PM	Lunch break
1:00-1:30 PM	Arun Bansil, Northeastern University, "A first-principles description of stronger correlations: Novel superconductors to topological phases and ultrathin 2D films"
1:30-2:00 PM	M. Zahid Hasan, Princeton University, "Topological Magnets in 2D and 3D: Discovery and the New Frontier"
2:00-2:30 PM	Kevin Garrity, NIST, Gaithersburg, "Identifying and Modeling Topological Materials"
2:30-3:00 PM	Ichiro Takeuchi, University of Maryland, "Perfect Andreev reflection due to the Klein paradox in a topological superconducting state"
3:00-3:30 PM	Johnpierre Paglione, University of Maryland, "Waiting for Godot: searching for superconductivity"
3:30-4:00 PM	Nicholas Butch, NIST, Gaithersburg, "The remarkable spin-triplet superconducting states in uranium ditelluride"
4:00-4:30 PM	Matt Reagor, Rigetti Computing, Berkeley, CA

Schedule	October 16, 2020
10:30-11:00 AM	Rudolph Magyar, Northrop Grumman Corporation, "Modeling Noise in Quantum Annealers"
11:00-11:30 AM	Ryan Gordon, IBM, "Quantum Computing with Superconducting Circuits"
11:30-12:00 Noon	Nathalie de Leon, Princeton University
12:00-12:30 PM	Joel Moore, UC Berkeley, "Linear and nonlinear optical properties in inversion-breaking crystals"
12:30-1:00 PM	Lunch break
1:00-2:00 PM	Virtual poster
2:00-3:30 PM	Hands-on session, Christopher Wood (IBM), Robert Loredo (IBM)
3:30-3:40 PM	Concluding remarks

Posters: (12 minutes for each poster)

1. Priyanka Manchanda, **Tunable defect-induced magnetism in Pt-based dichalcogenides**, Howard University.
2. Christina McBean, **Revisiting the Wettability of Graphene**, Howard University.
3. Nathan C. Frey, **Engineering Quantum States in Layered Materials: A Multiscale Modeling and Machine Learning Approach**, University of Pennsylvania.
4. Mahesh R. Neupane, **2D/H-Terminated Diamond Heterostructure: A Novel Quantum Material System for RF and Excitonic Device Applications**, US Army Research Laboratory.
5. **Tamanna Joshi**, Finite-size and Surface effects: Deep Defects in Nanostructured SiC, Howard University.

Moderators:

Carelyn Campbell (NIST) (Oct. 15, 10:30 AM-12:30 PM),

Kamal Choudhary (NIST) (Oct. 15, 1:00 PM-4:30 PM),

Albert Davydov (NIST) (Oct. 16, 10:30 AM to 12:30 PM),

Christopher Wood (IBM), Robert Loredo (IBM) (Oct. 16, 2:00 PM to 3:00 PM),

Francesca Tavazza (NIST), (Oct. 16, 3:30 to 3:40 PM).