

GHz-THz Electronics and Materials and Superconductivity Programs Joint Review  
23-25 July 2019

Time	Speaker	Affiliation
Tuesday, 23 July		
8:00	Registration	
8:25	Ken Goretta	AFOSR
8:30	Stavros Georgakopoulos	Florida International U
9:00	Sriram Ramanathan	Purdue U
9:30	Pat Lenahan	Pennsylvania State U
10:00		
10:20	Art Edwards	AFRL/Space Vehicles
10:50	Mitra Dutta / Mike Stroschio	U Illinois at Chicago
11:20	John Cetnar / Amber Reed	AFRL/Sensors / Materials and Manufacturing
11:50		
13:00	Zlatko Sitar	North Carolina State U
13:30	David Storm	Naval Research Laboratory
14:00	Mike Spencer	Morgan State U
14:30	Jim Speck	U California Santa Barbara
15:00		
15:20	Grace Xing / DJ Jena	Cornell U
15:50	Shin Mou / Kent Averett	AFRL/Materials and Manufacturing
16:20	Berardi Sensale-Rodriguez	U Utah

Wednesday, 24 July 19

8:00	Registration	
8:20	Ken Goretta	AFOSR
8:30	Sukwon Choi	Pennsylvania State U
9:00	Nick Glavin / Mike Snure	AFRL/Materials and Manufacturing / Sensors
9:30	Saptarshi Das	Pennsylvania State U
10:00		
10:20	Sufei Shi	Rensselaer Polytechnic Institute
10:50	Josep Jornet / Erik Einarsson	University at Buffalo
11:20	Yuri Suzuki	Stanford U
11:50		
13:00	Ivan Schuller	U California San Diego
13:30	Charles Ahn	Yale U
14:00	Chang-Beom Eom	U Wisconsin
14:30	Jayakanth Ravichandran	U Southern California
15:00		
15:20	Kyle Shen	Cornell U
15:50	Mike Page	AFRL/Materials and Manufacturing

16:20 Li Yang Washington U

Thursday, 25 July 19

8:00	Registration	
8:25	Ken Goretta	AFOSR
8:30	Ramesh Budhani	Morgan State U
9:00	Luqiao Liu	MIT
9:30	J.P. Paglione	U Maryland
10:00		
10:20	Shane Cybart	U California Riverside
10:50	Igor Vernick	Hypres Inc
11:20	Jose Rodriguez	Cal State Los Angeles
11:50		
13:00	Jiun-Haw Chu	U Washington
13:30	Paul Chu	U Houston
14:00	Bing Lv	U Texas at Dallas
14:30	Yohannes Abate	U Georgia
15:00		
15:20	Ashwani Sharma	AFRL/Space Vehicles
15:50	Yanbao Ma	U California Merced
16:20		

Welcome & logistics

Center for physically reconfigurable and deployable multifunctional antennas

Carrier doping and dynamics in correlated oxides

Electrically detected electron nuclear double resonance in solid state electronics

Defects in ultrawide bandgap semiconductors

Heat & carrier transport in wide-bandgap heterostructure devices by proper treatment of boundary effects

Investigation of transition metal nitrides for electronics and sensing

Overcoming the DX doping challenge in ultra wide bandgap semiconductors

Epitaxial growth and characterization of cubic BN

Cubic BN by ion-beam-assisted chemical vapor deposition

Role of alloy disorder in the physical properties of group III nitrides

Light-mass-atom semiconductor materials and devices

Ultra-wide-bandgap III-nitride alloys for high-power RF electronics

AlGa<sub>N</sub> & AlGa<sub>N</sub>-based quantum wells: towards high-power high-frequency electronics

Welcome & logistics

Thermal/mechanical investigation of ultra-wide-bandgap materials & devices

2D and 3D membranes for flexible RF electronic devices

Scalability & reliability of contacts to 2-D layered semiconductors

Exploiting ultrafast carrier transfer in van der Waals heterostructures

Hybrid graphene/semiconductor plasmonic nano-transceiver & nano-antenna for THz communications

Tuning metal-insulator transitions in ultra-thin correlated materials

Dynamics of mesoscopic structures

Inversion symmetry breaking cobaltates and vanadates for orbital FETs

Tunable oxide power electronics with 2-D electron gas interface

Towards ballistic transport in complex oxides

Enhancing superconductivity at atomically precise interfaces

Exploring structured multiferroic materials for frequency agility

Ferroelectricity, multiferroics & enhanced magnetoelectric effect in single-atomic layers

Welcome & logistics

Nanostructures of magnetic Dirac metals for RF electronics

Harnessing magnons for hybrid quantum information systems

Exploration and development of advanced superconducting materials

Direct-write nano Josephson superconducting tunnel junctions

Compact sub-mm wave oscillator for THz receiver

Theoretical/computational studies of high-temperature superconductivity from quantum magnetism

New superconductors near broken rotational symmetry instabilities

Search for novel superconductors, thermoelectrics, and super-thermal-conductors

Search for superconductivity in complex layered chalcogenide & topological systems

Probing fundamental interactions of electrons & quasiparticles from optical to THz frequencies

Room-temperature quantum ballistic transport in strain-controlled nanowire devices

Hybrid SThM-SEM system with high spatiotemporal resolution for transient thermal characterization