

MONDAY, MARCH 13, 2017

TIME **EVENT & LOCATION**

8:00 -
11:00 a.m.

A21: Polymer Physics - From Academia to Industry and Back

Sponsors: DPOLY, FIAP

Chair: Rohan Hule, ExxonMobil

Co-Chair: Megan Robertson, University of Houston



Engineering Field-Responsive Soft Materials for Protecting First Responders, Athletes and Astronauts

Norman Wagner, University of Delaware

Comb Block Polyolefins

Pat Brant, Exxon Mobil

Understanding Melt-Memory of Commercial Polyolefins

Rufina Alamo, Florida State University

Applications of Polymer Nanocomposites

Jeffery Meth, Dupont

Block Copolymer Self-Assembly Derived Ultrafiltration Membranes: From Science to Start-up

Ulrich Weisner, Cornell University

12:00 -
2:15 p.m.

Meet Your Future: An Interactive Panel on Industry Careers (Pizza Lunch)

Chair: Steven Lambert, APS

FIAP will host a special lunchtime session in which representatives from industry will briefly describe their career path and answer questions about physics careers in the private sector. Topics will include research opportunities for physicists in industry, strategies for successfully pursuing industrial jobs, and advice on how to thrive in this exciting and challenging work environment.

**New Orleans Marriott, Balcony IJK
(25 min walk from convention center)**

FIAP sponsors many sessions during the APS March Meeting. This is a listing of those sessions and activities that focus on industrial physics. Industry Day is Wednesday, March 15 with satellite sessions on Tuesday and Thursday.

More information:
go.aps.org/mm17-industry-day

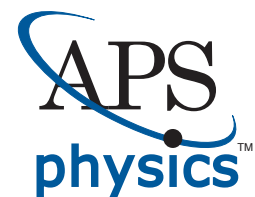


INDUSTRY DAY

Physics at Work for You

New Orleans, LA • March 13-17, 2017

FIAP Invited Sessions



TUESDAY, MARCH 14, 2017

TIME	EVENT & LOCATION
11:15 a.m. - 2:15 p.m.	F29: Industrial Physics Forum, "Physics in the Industrial World" Chair: Steven Lambert, APS  Sensing Challenges for Fully Autonomous Vehicles Jim McBride, Ford Quantum Computing Matthias Steffen, IBM Virtual Reality Clark Dever, Heads Up Display, Inc. High Power Electronics Sameer Pendharkar, Texas Instruments A Physicist's Journey in Silicon Valley Brian Wilfley, Triple Ring Tech
12:30 - 2:00 p.m.	Graduate Student Lunch with the Experts Sign-up near APS Registration Desk (first-come, first-served)  FIAP Experts: <ol style="list-style-type: none"> From Theoretical Physics to Commercialization of Medical Device Cha-Mei Tang, CreatvMicrotech Marketing your Ideas in a Corporate Environment Joe Mantese, United Technologies Research Center Lessons Learned in Coming Full Circle: Life in Academia, Industry, & Government-Larry Nagahara, Johns Hopkins From Physics to Big Data: It's Shorter than You Think? John Rumble, R&R Data Services Life for a Theorist Working for Industry; Experiences at IBM Barbara Jones, IBM Materials Analysis at IBM Research Using a Particle Accelerator Michael Gordon, IBM Start-ups: Where the Action is! Matt Kim, QuantTera
2:30 - 5:30 p.m.	H29: Role of Measurements and Instrumentation in Advancing Industry & Applied Physics FIAP Co-Chair: Dave Seiler, NIST GIMS Co-Chair: Angie Hight-Walker, NIST  With Great Measurements Comes Great Results Kent Rochford, NIST New Measurement Technologies Enable the Revolution in Life Sciences James N. Hollenhorst, Agilent Technologies Enabling Automotive Innovation: Tales from a Physicist in Industry Fred E. Pinkerton, General Motors Semiconductor Characterization: from Growth to Manufacturing Luigi Colombo, Texas Instruments Look But Don't Touch: Spectroscopic Ellipsometry Advances Materials Research and Process Monitoring Thomas Tiwald, J.A. Woollam
5:30 - 7:30 p.m.	APS - FIAP - AIP Reception 3rd floor atrium outside room 383

WEDNESDAY, MARCH 15, 2017

TIME	EVENT & LOCATION
8:00 - 11:00 a.m.	K29: Physics Leading the Frontier of Genomics & Applications FIAP Chair: Cha-Mei Tang, Creatv Microtech, DBIO Co-Chair: Dr. Binquan Luan, IBM T J Watson Research Center  Quantum Sequencing Opportunities and Challenges Massimiliano Di Ventra, University of California, San Diego Nanopore Kinetic Proof Reading of DNA Sequence Sean Ling, Brown University Iso-Flux Tension Propagation Theory and It's Application to Driven Polymer Translocation Tapio Ala-Nissila, Alto University Precision Genome Editing for Treating Single-gene Disorders Gang Bao, Rice University Influence of Pore Charge, Pressure, and Electric Field on Protein Transport through Nanopores Meni Wanunu, Northeastern University
11:15 a.m. - 2:15 p.m.	L29: Physics That Changed the World Chair: Eli Yablonovitch, University of California, Berkeley  Energy Efficient GaN Lighting Steven Denbaars, University of California, Santa Barbara LASER Refractive Surgery Jim Wynne, IBM Magnetic Resonance Medical Imaging (MRI) from the Inside Paul Bottomley, Johns Hopkins Batteries that Changed the World Peter Littlewood, Argonne National Lab GPS and Precision Time-Keeping Steven Chu, Stanford University
2:30 - 5:30 p.m.	P29: Lab to Product, the Marketplace Chair: Joe Mantese, UTRC  Funding Innovation from an Industry Perspective John Murphy, UTRC From Physics to Big Data John Rumble, R&R Data Services Physics, Materials, Devices and Chips-A Lab to Product Quest Carlos Araujo, University of Colorado/Symetrix The Oxide-Confined Vertical-Cavity Surface-Emitting Laser: From Dust to Light John Dallasasse, University of Illinois Materials to Products John Tolle, ASM
5:30 - 6:30 p.m.	FIAP Business Meeting  Recognition of new APS Fellows and prize winners: <ul style="list-style-type: none"> Prize for Industrial Applications of Physics Asad Khan, Kent Displays George E. Pake Prize-Tze-Chiang Chen IBM T.J. Watson Research Center Distinguished Lectureship Award on the Applications of Physics Rudolf M. Tromp, IBM Thomas J. Watson Research Center

THURSDAY, MARCH 16, 2017

TIME	EVENT & LOCATION
8:00 - 11:00 a.m.	R29: Industrial Advances in Computation FIAP Chair: Larry Nagahara, Johns Hopkins  Modeling for Integrated Oxide Electronics and Photonics Alexander Demkov, University of Texas, Austin High-throughput Materials Discovery and Development: Break-throughs and Challenges in the Mapping of the Materials Genome Marco Buongiorno Nardelli, University of North Texas Ab initio Guided Design of Structural Materials with Superior Mechanical Properties Jorg Neugebauer, Max-Planck-Institut für Eisenforschung Novel Heterostructure Devices for Ultra-Scaled Logic Patrick Fay, University of Notre Dame Electronic Structure Calculations for Industrial Technology Development Justin Weber, Intel
11:15 a.m. - 2:15 p.m.	S29: Entrepreneurs: Building the Company Chair: Ichiro Takeuchi, University of Maryland  Different Roads to Academic Entrepreneurship T. Venky Venkatesan, National University of Singapore From Theoretical Physics to Cancer Diagnostics Cha-Mei Tang, Creatv MicroTech Starting Up a Company in a Mature Market: Wise or Foolish? Maximilian Bib Berger, SDCmaterials Keys to Taking Your Nanotech Inventions to the Market Scott Rickert, PEN inc Applying Scientific Skills to the Business World Stefan Murry, Applied Optoelectronics
2:30 - 5:30 p.m.	V29: Entrepreneurial Panel Discussion and Prize Session Chair: Matt Kim, QuantTera  Entrepreneurial Panel Part 1 Panelists from entrepreneurial session Entrepreneurial Panel Part 2 Panelists from entrepreneurial session George E. Pake Prize Tze-Chiang Chen Prize for Industrial Applications Asad Khan Distinguished Lectureship Award Rudolf M. Tromp
5:30 - 7:30 p.m.	FIAP-FECS Closing Reception 3rd floor atrium outside room 383