FIAP sponsors many sessions during the APS March Meeting. This is a listing of those sessions and activities that focus on industrial physics and are a part of Industry Day.

Learn More: aps.org/meetings/march/industry.cfm
Tuesday, March 6

11:15 A.M. - 2:15 P.M. | LACC 408A

F32: ADVANCING INNOVATION FOR INDUSTRY AND SOCIETY
Chair: David Seiler, NIST
Fostering Innovation and Entrepreneurship at Purdue University: from the Laboratory to the Market
Ernesto Mariniro, Purdue University
Advancing Technology at NSF
Barry Johnson, NSF
Sustaining Innovation in the Semiconductor Industry
Dan Armbrust, Silicon Catalyst
Space Innovation: The Aerospace iLab Initiative
Randi Villahermosa, The Aerospace Corporation
Innovating Towards a New Energy Future at TAE Technologies, Inc.
Matthew C. Thompson, TAE Technologies, Inc

12:30 P.M. - 2:00 P.M. | LACC WEST HALL B

F61: STUDENTS LUNCH WITH THE EXPERTS
Undergraduate and graduate students are invited to lunch with the experts. Registration for this event is located in the West Lobby.

2:30 P.M. - 5:30 P.M. | LACC 408A

H32: PHYSICS IMPACT ON MEDICINE
Chair: Larry Nagahara, Johns Hopkins University
Nanostructure Embedded Substrates for Detection and Characterization of Circulating Tumor Cells
Hsian-Rong Tseng, UCLA
Development of Wearable and Bedside Biophotonics Technologies for Personalized Health
Bruce Trumbore, UC Irvine
Emerging Cancer Therapeutics
Thomas Mackie, University of Wisconsin
MRI-guided Focused Ultrasound – Revolution in Patient Care
Kullervo Hynynen, University of Toronto
High-Resolution Imaging of Bone Health
Wojciech Zbijewski, Johns Hopkins University

Wednesday, March 7

8:00 A.M. - 11:00 A.M. | LACC 408A

K32: DATA SCIENCE AS THE DRIVING FORCE FOR INDUSTRIAL PHYSICS
Chair: Jason Stewart Gardner, National Synchrotron Radiation Research Center
How Big Data Unlocks the New Many-body Physics of Online Threats
Neil Johnson, University of Miami
Solving Industrial Materials Problems By Using Machine Learning Across Diverse Computational and Experimental Data
Bryce Meredith, Citrine Informatics
What Physics Does and Doesn’t Tell You About Data Science
David Purdy, Uber Technologies
Machine Learning Models vs Physics Models: The Battle for Acceptance
Sergey Yurgenson, Advanced Data Sciences at DataRobot
A Hitchhiker’s Guide to Data Science
Sundeep Das, Netflix

11:15 A.M. - 2:15 P.M. | LACC 408A

L32: PHYSICS THAT CHANGED THE WORLD
Chair: Ela Yablonovich, University of California, Berkeley
Oxide-Confinned VCSELS
Milton Feng, University of Illinois
The Ubiquitous SQUID: History and Applications
John Clarke, University of California, Berkeley
How Organic Light Emitting Diodes Revolutionized Displays (And Maybe Lighting)
Stephen Forrest, University of Michigan
The Magnetic hard Disk Drive: How Information is Stored in the Cloud
Barry Stipe, Western Digital Corp.
The Double-Heterostructure Concept in Lasers, LED’s, and Solar Cells
Ela Yablonovich, UC Berkeley

2:30 P.M. - 5:30 P.M. | LACC 408A

P32: PUT BIG DATA IN YOUR PHYSICS TOOLBOX
Co-Chairs: Steven Lambert, APS and Brad Conrad, AIP
Improving Electron Microscopy with Artificial Intelligence and Big Data
Eric Stach, University of Pennsylvania and Hummingbird Scientific
Quantum Computing at D-Wave
Aaron Lott, D-Wave
Polymer Discovery Using Big Data and Analytics
Jed Pitera, IBM
Combinatorial Experimentation and Machine Learning for Materials Discovery
Ichiro Takeuchi, University of Maryland
Making Big Data Work for Physicists
Paul Kassebaum, Mathworks

5:30 P.M. - 6:30 P.M. | LACC 408A

Q32: FIAP BUSINESS MEETING
Includes recognition of new APS Fellows and Prize winners.
- George E. Pake Prize: Richard Boudreau, Polar Knowledge Canada
- Distinguished Lectureship on Applications of Physics: Robert Kleinberg, Schlumberger

Thursday, March 8

11:15 A.M. - 2:15 P.M. | LACC 408A

S32: PHYSICISTS AS ENTREPRENEURS
Chair: Matt Kim, QuantTera
Containerless Research, Inc., a Niche Science Enterprise
Paul Nordine, Physical Property Measurements, Inc.
Patent Law That Every Physicist Should Know?
George Chen, Bryan Cave
Exciting Opportunities for Physicists: Bridging the Chaos Between Science and Markets
Kenneth Bradly, PixelIXX Systems, Inc.
Entrepreneurial Physics: Finding Support for Research and Commercialization
Daniel S. Green, Office of Naval Research
Small to Big Company Entrepreneurship
Ken Campman, Sumika Electronic Materials

2:30 P.M. - 5:30 P.M. | LACC 408A

V32: JOSEPH F. KEITHLEY AND INDUSTRIAL PHYSICS AWARDS
Chair: Ichiro Takeuchi, University of Maryland
Development of Scanning Probe Instruments and Application to the Graphene 2D Electron System
Joseph Strosnich, NIST
STM Inelastic Electron Tunneling Spectroscopy and Microscopy
Wilson Ho, UC Irvine
From Inelastic Tunneling Spectroscopy to Electron Spin Resonance of Single Atom Spins on a Surface
Andreas Heinrich, Center for Quantum Nanoscience, Institute for Basic Science
mK to km: How Millikelvin Physics is Reused to Explore the Earth
Ken Campman, Schlumberger
An Ecosystem Approach to Industrial Physics: Atmospheric Moisture Harvesting Through High Temperature Plasma Surface Modification, A Case Study
Richard Boudreau, Polar Knowledge Canada

5:30 P.M. - 7:30 P.M. | LACC FOYER (OUTSIDE OF ROOMS 309 & 402B)

INDUSTRY DAY CLOSING RECEPTION
Sponsored by FIAP-AIP-GIMS-FECS
Join your colleagues for a social time with light refreshments including beer and wine to wrap up Industry Day activities for 2018. There will be brief remarks by some of the organizers and sponsors. Hope to see you there!