Monday, March 5

11:15 A.M. - 2:15 P.M. | LACC PETREE HALL D

DPOLY-FIAP

B59: POLYMER PHYSICS FROM ACADEMIA TO INDUSTRY AND BACK
Chair: Rohan Hule, Exxon Mobil

Microstructral Basis for the Unexpected Radial Strength of Poly L-lactide (PLLA) Bioresorbable Vascular Scafflolds During Hydrolysis
Julie Kornfield, Caltech

Polymer Physics in Self-Assembled Nanopatterns: From Block Copolymers to Polymer Grafted Nanocrystals
Ricardo Ruiz, Western Digital Corp

Practical Challenges for the Implementation of Polymers into Highly Engineered Systems - an Industrial Perspective
Jon Degroot, Dow Performance Silicones

Insight vs. Accuracy for Models and Experiments in industry: How to Strive for Simplicity, and the Importance of Top-down, Multi-physics Modeling
Sumanth Jamadagni, Modeling and Simulation, Procter & Gamble Co

Thermoplastic Composite Solutions for Mass Markets: Opportunities and Challenges
Nikhil Verghese, Composites Technology and Innovations

12:00 P.M. - 2:15 P.M. | J.W. MARRIOTT PLATINUM DE

FIAP

B61: MEET YOUR FUTURE: CAREERS IN THE PRIVATE SECTOR
Chair: Steven Lambert, American Physical Society
This special lunchtime session features representatives from industry who will discuss 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. Pizza included!

2:30 P.M. - 4:54 P.M. | LACC 152

GIMS-FIAP

C05: PATENTS, INNOVATIONS, AND WARS!
Chair: Phil Wyatt, Wyatt Technology Corporation

Laser: The Inventor, the Nobel Laureate, and the 30-year Patent War
Nick Taylor, Author

The Independent Inventor's Handbook
Louis Foreman, Enventys Partners

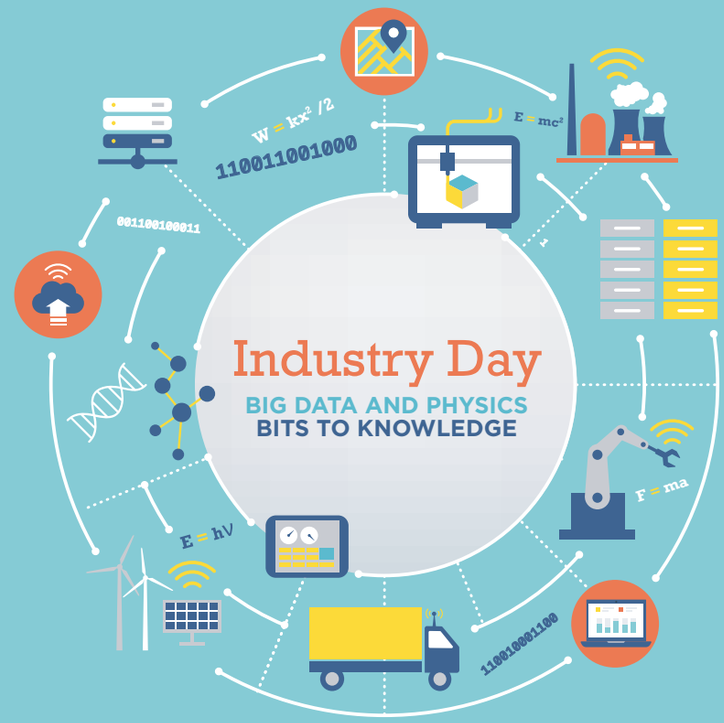
Patent Sense: Knowing When to Pursue Patent Protection
Dan Krueger, Ramey & Schwaller, LLP

Pieces of the Patent Puzzle: A Primer
Diana DiBerardino, DiBerardino McGovern IP Group LLC

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

APS physics™



FIAP Invited Sessions

APS physics™ MARCH MEETING 2018
MARCH 5-9 LOS ANGELES

Tuesday, March 6

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

FIAP-FPS

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 Marinero, 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
Randy 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

FIAP

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

GMED-FIAP

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 Tromberg, UC Irvin

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

FECS-FIAP

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 Meredig, Citrine Informatics

What Physics Does and Doesn't Teach 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

FIAP

L32: PHYSICS THAT CHANGED THE WORLD
Chair: Eli Yablonovitch, University of California, Berkeley

Oxide-Confined 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
Eli Yablonovitch, UC Berkeley

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

FIAP-AIP

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

FIAP

Q32: FIAP BUSINESS MEETING
Includes recognition of new APS Fellows and Prize winners.
- George E. Pake Prize: Richard Boudreault, 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

FIAP

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, PixelEXX 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

GIMS-FIAP

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
Jospeh Stroscio, 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 Kilometers Below the Surface
Robert Kleinberg, Schlumberger

An Ecosystem Approach to Industrial Physics: Atmospheric Moisture Harvesting Through High Temperature Plasma Surface Modification, A Case Study
Richard Boudreault, 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!