About Industry Day
Industry Day brings together graduate students, early career scientists, industry professionals, and academics who want to stay up-to-date on what’s happening in industrial and applied physics.

This year’s Industry Day theme, “New Ways of Seeing,” will showcase the diverse activities of physicists who have chosen non-academic careers.

Enjoy discovering new methods for gathering information about the world, advances in how we organize and utilize data, frontiers in energy, and innovations that impact technologies from self-driving cars to aerospace.

Join FIAP
Stay up-to-date on news and trends in the field of industrial physics by becoming a member of the Forum on Industrial Physics (FIAP).

Learn more: aps.org/units/fiap

Wednesday, March 8
8 a.m.—6 p.m.

Tuesday and Thursday,
March 7 and 9

Additional Industry Sessions

Get involved with industrial physics on a new level—sign up to become a mentor or mentee!

The APS Industry Mentoring for Physicists (IMPact) program connects graduate students, postdocs, and early career scientists with industrial physicists and entrepreneurs.

Learn more: impact.aps.org
Tuesday, March 7

G51. Autonomous Science
11:30 a.m.–2:30 p.m. | Room 321
Sponsor: FIAP
Chair: Ichiro Takeuchi, University of Maryland, College Park
- A Cloud-based AI-driven Autonomous Lab - Teodoru Laino, IBM
- Autonomous learning of behavioral policies - Massimo Vergassola, UCSF/ENS Paris
- Magnetic control of tokamak plasmas through deep reinforcement learning - Jonas Buchli, DeepMind Technologies
- Autonomous Materials Science - Aaron Kusne, National Institute of Standards and Technology
- Rheostats and toggles switches for modulating protein function: A Cautionary Tale - Liskin Swint-Kruse, Univ. Kansas Medical Center

K51. Scientist Entrepreneurs:
Making a career founding start-up companies
3:00 p.m.–6:00 p.m. | Room 321
Sponsor: FIAP
Chair: Chair: Anne Matsuura, Intel Corporation, Santa Clara
- Commercializing Deep-Tech: Case Studies from a Scientific Founder- Seth Coe-Sullivan, NS Nanotech
- TBD - Jill Becker, 02139 Inc
- From BEC to CEO - Christopher J Myatt, TBD
- From Scientist to Entrepreneur and back again - Benjamin Bloom, Atom Computing
- Rheostats and toggles switches for modulating protein function: A Cautionary Tale - Liskin Swint-Kruse, Univ. Kansas Medical Center

13G: Student Lunch With the Experts
12:30 p.m.–2:00 p.m. | Caesars Forum Outdoor Plaza
Tickets are available on a first-come, first-served basis

Wednesday, March 8

M51. What Do Early Career Physicists Do?
8:00 a.m.–10:30 a.m. | Room 321
Sponsors: FIAP, FECS
Chair: Andrew Sedef, Wentworth Inst of Tech
- My Path to D. E. Shaw Research or: How I Learned to Stop Worrying and Love the Small Molecules - Elizabeth R Decolvenaere, D. E. Shaw & Co
- The Time Evolution of Olivia and Joining the Quantum Workforce - Olivia Lanes, IBM
- The emerging role of public-private partnerships in fusion energy R&D - Walter Guttenfelder, Princeton Plasma Physics Laboratory
- What is it like to work at a startup? - Sara Bartolucci, PsiQuantum

N51. Commercial Applications of Quantum Computing
11:30 a.m.–2:30 p.m. | Room 321
Sponsor: FIAP
Chair: Abram Falk, IBM TJ Watson Research Center
- Quantum Computing and Quantum Communications in the Financial Industry - Marco Pistoia, JP Morgan Chase
- Closing in On Practical Quantum Advantage - Alejandro Perdomo-Ortiz, Zapata Computing
- Quantumum’s H-series Quantum Computers - Brian Neyenhuis, Quantumum
- The path to quantum advantage with error mitigation - Sarah Sheldon, IBM Quantum
- Promising Quantum Computing Applications in Aerospace - Richard J Thompson, Boeing

Q51. Industry Fellows
3:00 p.m.–6:00 p.m. | Room 321
Sponsor: FIAP
Chair: Matthew Thompson, Zap Energy Inc.
- Distinguished Lectureship Award on the Applications of Physics: Induced polarization for subsurface characterization and energy industry experience - Qiuzi Li, ExxonMobil Technology and Engineering Company
- Spin-Transfer-Torque MRAM: the next Revolution in Memory - Daniel C Worledge, IBM Research - Almaden
- Plasmonic Terahertz Imaging and Spectroscopy Systems - Mona Jarrahi, University of California, Los Angeles
- The physics and applications of topologically complex light - Siddharth Ramachandran, Boston University
- What Are 2D Materials Good For? - Eric Pop, Stanford University

R51. FIAP Annual Business Meeting
6:15 p.m.–7:15 p.m. | Room 321
Sponsor: FIAP
Chair: Eric Pop, Stanford University

Thursday, March 9

S51. New Materials and Physics for Innovations in Telecommunications
8:00 a.m.–11:00 a.m. | Room 321
Sponsor: FIAP
Chair: Nathan Orloff, NIST
- Characterizing interconnects to 325 GHz - Nicholas R Jungwirth, National Institute of Standards and Technology
- mmWave Magnetostatic Devices - Piotr Kulik, Metamagnetics Inc.
- Frequency Scaling Acoustic Resonators into Millimeter Wave Using Thin-Film Lithium Niobate - Ruochen Lu, University of Texas
- New Surface Chemistry and Adatom Kinetics Results in Novel Extreme Bandgap Semiconductor Device Opportunities - Alan Doolittle, Georgia Institute of Technology
- Measuring out-of-plane permittivity of dielectric thin films at millimeter-wave frequencies - Meagan Papac, NIST

T51. Data Science for Industry
11:30 a.m.–2:00 p.m. | Room 321
Sponsor: FIAP
Chair: Maria Longobardi, University of Basel, Switzerland
- Current Challenges for Data Science and Trustworthy AI in Industry and Government - J.P. Auffret, George Mason University
- Data Science in Retail: Pricing Optimization and Customer Engagement - Aleksey Kocherzhenko, Launchpad AI
- Quantum neural networks for medical image analysis - Yun Y Li, Hoffmann - La Roche

W50. Quantum in Industry: Quantum Information Hardware
3:00 p.m.–6:00 p.m. | Room 320
Sponsor: FIAP
Chair: Shavindra Premaratne, Intel Corporation
- High-level control of spin qubits on an array with 12 quantum dots - Florian Luthi, Intel Corporation
- Quantum in the Future Computing Environment - Markus Brink, IBM
- TBD - Gijs de Lange, Change to Microsoft Quantum Lab, Delft
- Quantum computing with silicon photonics - Matthew House, Zap Energy Inc.
- Quantum in the Future Computing Environment - Markus Brink, IBM

Industry Day Reception
6:00 p.m.–7:30 p.m. | Caesars Forum 313
Sponsors: FIAP, AIP, GDS