Exhibits and Show Floor Programs
Gain access to thought leaders, new products and ground-breaking technologies.

TECHNICAL CONFERENCE
06 – 10 March 2022

EXHIBITION
08 – 10 March 2022

San Diego Convention Center
San Diego, California, USA

A HYBRID CONFERENCE – IN-PERSON AND VIRTUAL PRESENTATIONS

ofcconference.org
Location
San Diego Convention Center
111 W Harbor Drive
San Diego, California 92101
USA

Health and Safety Practices
The health and safety of attendees and exhibitors is of primary importance. OFC Management is committed to taking necessary precautions to provide participants with a safe and secure conference experience.

OFC follows regulations set by federal, state and local governments and guidelines from public health agencies. We confirm best practices and recommendations from the San Diego Convention Center and our conference service providers.

Now more than ever, it is vital to keep our community reliably informed on current conditions. Learn more about our health and safety practices on the conference website, ofcconference.org/cares

Support
General Information
+1 202.416.1907
+1 800.766.4672
custserv@optica.org

Registration
+1 224.563.3121
+1 855.326.8341
OFC@csreg.zohodesk.com

Hotel Reservations
+1 864.515.6682
OFC@maritz.com

It’s Here!
The year’s premier event in telecom and data center optics

OFC is the world’s largest conference and exhibition for optical communications and networking professionals.

This premier event brings together manufacturers, developers, end users and other business and technology leaders from 60+ countries seeking the future direction of the industry.

OFC is the go-to source for forward-looking market intelligence and trends and insight on new products.

It’s Free!

Exhibits Pass Plus registration includes:

- Access to the exhibition hall
- Market Watch – 6 panel discussions
- Network Operator Summit – keynote and 2 panels
- Data Center Summit – keynote and 2 panels
- Over 20 business programs
- Plenary session featuring 3 industry luminaries
- 10 interactive hot topic workshops
- Career Zone – the industry’s premier recruiting event
- OFC 2022 Buyers’ Guide

Register today for Exhibits Pass Plus!
ofcconference.org/registration
## Schedule

### General

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<th>Tuesday, 08 March</th>
<th>Wednesday, 09 March</th>
<th>Thursday, 10 March</th>
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<tbody>
<tr>
<td>Registration*</td>
<td>07:30 - 19:00</td>
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<td>07:00 - 18:00</td>
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<tr>
<td>Short Courses (fee required)</td>
<td>09:00 - 20:00</td>
<td>08:30 - 17:30</td>
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<tr>
<td>Workshops</td>
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<tr>
<td>Exhibition and Show Floor Activities</td>
<td>10:00 - 17:00</td>
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<td>Exhibition-Only Time</td>
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<td>Career Zone</td>
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<tr>
<td>Plenary</td>
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<tr>
<td>Poster Sessions</td>
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<td>10:30 - 12:30</td>
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<tr>
<td>Conference Reception (ticket required for Exhibits Pass Plus attendees)</td>
<td>18:30 - 20:00</td>
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### Show Floor Programs

#### MARKET WATCH (SPONSORED BY Infinera)

- **Panel I: State of the Industry**  
  10:30 - 12:00
- **Panel II: The Path to Co-packaged Optics for Switching Applications**  
  12:30 - 14:00
- **Panel III: Building the Ecosystem for Converged IP/Optical Networks – Beyond 400G Pluggables**  
  14:30 - 16:00
- **Panel IV: The Role of Optics in Future Machine Learning Architectures**  
  15:30 - 17:00
- **Panel V: Evolution of Coherent Transceiver Architectures for Specific Applications**  
  10:30 - 12:00
- **Panel VI: Building the Next Generation 3.2T Transceiver**  
  12:30 - 14:00

### NETWORK OPERATOR SUMMIT

- **Network Operator Summit: Keynote**  
  10:30 - 11:00
- **Panel I: Operator Investment Directions for FTTH and Access Networks**  
  11:30 - 13:00
- **Panel II: Using Disaggregation as a Strategy to Modernize the Network**  
  13:30 - 15:00

### DATA CENTER SUMMIT

- **Data Center Summit: Keynote**  
  10:30 - 11:00
- **Panel I: Scaling Data Center Interconnect**  
  11:30 - 13:00
- **Panel II: Solving the Challenge of Moving Data Centers to the Network Edge**  
  13:30 - 15:00

### INTRA AND INTER DATA CENTER CONNECTIVITY

- **What Makes Ethernet, Ethernet? (Ethernet Alliance)**  
  10:30 - 11:30
- **Deployment of 400ZR and the Ongoing OIF Work to Define 800ZR/LR (OIF)**  
  12:00 - 13:00
- **OpenZR+: Enabling High-performance Router-based Optics (OpenZR+ MSA)**  
  11:30 - 13:00

### NETWORK INFRASTRUCTURE

- **Evolution of Optics for Mobile (MOPA)**  
  13:30 - 14:30
- **OpenROADM Updates and Demo (OpenROADM MSA)**  
  15:00 - 16:00
- **Building Open & Disaggregated Networks (TIP)**  
  13:00 - 14:00
- **The Edge Cloud: Descending Cloud – Ascending Edge, and What It Means for Optical Networks (IEEE Future Directions)**  
  13:30 - 14:30

### ACCESS NETWORKS

- **The Future of PON: 25G or 50G?**  
  13:00 - 14:00
- **The Converged Mobile Xhaul and FTTH Fiber Access Opportunity**  
  15:30 - 16:30
- **F5G Update: Emerging Use Cases and Demonstrations (ETSI)**  
  10:30 - 11:30

### OPTICAL SYSTEMS AND COMPONENTS

- **An OIF Update on Electrical Rates: 112G Technical Closure and the Latest Progress and Challenges for 224G (OIF)**  
  16:00 - 17:00
- **Space-based Optical Communications – Unleashing the Potential of Space**  
  14:30 - 15:30
- **Beyond 400G – IEEE Update on Progress Towards 800 GbE and 1.6 TBE (IEEE)**  
  16:00 - 17:00
- **Hollow Core Fiber – Ready for Prime Time?**  
  12:00 - 13:00

### STANDARD AND INDUSTRY GROUP UPDATES

- **AIM Photonics and the Next PIC Generation (AIM Photonics)**  
  11:30 - 12:30
- **DARPA Photonics Programs (DARPA)**  
  14:30 - 15:30

### INDUSTRY TECHNOLOGY SHOWCASE

- **Industry Technology Showcase**  
  10:15 - 13:00
  16:15 - 16:45
  14:15 - 15:30

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All times reflect Pacific Time Zone  
* Hours subject to change
## Short Courses

Get in-depth training from industry experts. Registration fees are required. This year, Short Courses will only be presented in person for instructors and attendees. Find complete course descriptions, objectives and instructor biographies at ofcconference.org/shortcourse

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<tr>
<th>Sunday, 06 March</th>
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<th>SC177</th>
<th>High-speed Semiconductor Lasers and Modulators</th>
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<tr>
<td></td>
<td>09:00 - 13:00</td>
<td>SC105</td>
<td>Modulation Formats and Receiver Concepts for Optical Transmission Systems</td>
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<td></td>
<td>09:00 - 13:00</td>
<td>SC208</td>
<td>Optical Fiber Design for Telecommunications and Specialty Applications</td>
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<td></td>
<td>13:00 - 17:00</td>
<td>SC203</td>
<td>400 Gb/s and Beyond Optical Communication Systems, Design and Design Trade-offs</td>
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<td></td>
<td>13:00 - 17:00</td>
<td>SC267</td>
<td>Silicon Microphotonic Devices: Technology Elements and the Roadmap to Implementation</td>
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<td>17:00 - 20:00</td>
<td>SC452</td>
<td>FPGA Prototyping for Optical Subsystems</td>
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<td></td>
<td>SC428</td>
<td>Link Design and Modeling for Intra Data Center Optical Interconnects</td>
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<td>SC484</td>
<td>Transport Evolution Due to Cloud Services</td>
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<th>08:30 - 12:30</th>
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<th>WDM in Long-haul Transmission Systems</th>
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<td>09:00 - 12:00</td>
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<td>Optical Communication Technologies for 5G</td>
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<td></td>
<td>09:00 - 12:00</td>
<td>SC460</td>
<td>Digital Coherent Optical System Performance Basics</td>
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<td>09:00 - 12:00</td>
<td>SC470</td>
<td>Secure Optical Communications</td>
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<td>09:00 - 12:00</td>
<td>SC485</td>
<td>Advanced Fiber Access Networks</td>
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<td>09:00 - 13:00</td>
<td>SC448</td>
<td>Hands-on: Laboratory Automation and Control Using Python (Advanced)</td>
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<td></td>
<td>13:30 - 16:30</td>
<td>SC114</td>
<td>Technologies and Applications for Passive Optical Networks (PONs)</td>
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<td>13:30 - 17:00</td>
<td>SC325</td>
<td>Highly Integrated Monolithic Photonic Integrated Circuits</td>
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<td>13:30 - 17:00</td>
<td>SC327</td>
<td>Modeling and Design of Long-haul Fiber-optic Communication Systems</td>
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<td></td>
<td>13:30 - 17:00</td>
<td>SC347</td>
<td>Reliability and Qualification of Fiber-optic Components</td>
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<td></td>
<td>13:30 - 17:00</td>
<td>SC357</td>
<td>Circuits and Equalization Methods for Coherent and Direct Detection Optical Links</td>
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<td>13:30 - 17:00</td>
<td>SC393</td>
<td>Digital Signal Processing for Coherent Optical Transceivers</td>
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<td>SC431</td>
<td>Photonic Technologies in the Data Center</td>
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<td>SC451</td>
<td>Optical Fiber Sensors</td>
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<td>13:30 - 17:00</td>
<td>SC453B</td>
<td>Hands-on: Fiber Optic Handling, Measurements and Component Testing</td>
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<tr>
<td></td>
<td>13:30 - 17:00</td>
<td>SC454</td>
<td>Hands-on: Introduction to Silicon Photonics Circuit Design</td>
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<th>Monday, 07 March</th>
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<th>Hands-on: Controlling and Monitoring Optical Network Equipment</th>
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<td>09:00 - 12:00</td>
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<td>09:00 - 12:00</td>
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<td>Hands-on: Machine Learning in Optical Networks</td>
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<td>13:00 - 17:00</td>
<td>SC443</td>
<td>Optical Amplifiers: From Fundamental Principles to Technology Trends</td>
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<td></td>
<td>13:00 - 17:00</td>
<td>SC461</td>
<td>High-capacity Data Center Interconnects for Cloud-scale Networking</td>
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<td>13:00 - 17:00</td>
<td>SC463</td>
<td>Optical Transport SDN: Architectures, Applications and Actual Implementations</td>
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<td>13:00 - 17:00</td>
<td>SC469</td>
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<td>13:00 - 17:00</td>
<td>SC486</td>
<td>Optoelectronic Devices for LiDAR and High-BW or 3D Sensing</td>
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<td>13:00 - 17:00</td>
<td>SC487</td>
<td>Hands-on: Laboratory Automation and Control Using Python</td>
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<td></td>
<td>13:30 - 16:30</td>
<td>SC395</td>
<td>Modeling and Simulation of Optical Transmitter and Receiver Components for Coherent Communications</td>
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<td></td>
<td>13:30 - 16:30</td>
<td>SC408</td>
<td>Design, Manufacturing and Packaging of Opto-electronic Modules</td>
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<td>13:30 - 16:30</td>
<td>SC409</td>
<td>Transmission Fiber and Cables</td>
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<td>13:30 - 17:30</td>
<td>SC450</td>
<td>Modeling and Design of Long-haul Fiber-optic Communication Systems</td>
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<td>13:30 - 17:30</td>
<td>SC451</td>
<td>Optical Fiber Sensors</td>
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<td>SC453B</td>
<td>Hands-on: Fiber Optic Handling, Measurements and Component Testing</td>
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<td>SC454</td>
<td>Hands-on: Introduction to Silicon Photonics Circuit Design</td>
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<td></td>
<td>13:30 - 17:30</td>
<td>SC455</td>
<td>Evolution of Optical Network Protocols and Architecture</td>
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<td>13:30 - 17:30</td>
<td>SC456</td>
<td>Evolving Software Defined Optical Networks: Architecture and Design Principles</td>
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<td>13:30 - 17:30</td>
<td>SC457</td>
<td>Optical Transport SDN: Architectures, Applications and Actual Implementations</td>
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<td></td>
<td>13:30 - 17:30</td>
<td>SC458</td>
<td>Hands-on: Fiber Optic Handling, Measurements and Component Testing</td>
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<td></td>
<td>13:30 - 17:30</td>
<td>SC459</td>
<td>Hands-on: Introduction to Silicon Photonics Circuit Design</td>
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Plenary Speakers

The plenary speakers include an industrial leader and a research leader, both covering topics related to the technical core of the conference, and a visionary speaker linking topics outside OFC’s focus to the conference.

John Bowers
Director, Institute of Energy Efficiency, University of California, Santa Barbara, USA
Present and Future Silicon Photonics

Silicon photonics is advancing rapidly in performance and capability with multiple fabrication facilities and foundries having advanced passive and active devices, including modulators, photodetectors, and lasers. Integration of photonics with electronics is key to advanced photonics and advanced electronics. The low cost and scaling ability of silicon photonics is expanding the market beyond datacom and telecom to sensors, navigation, and IoT.

Jim Green
NASA Chief Scientist, NASA, USA
Exploration Technologies: Communicating with Spacecraft, Landers, Rovers and Human Missions

We are in a golden age of robotic and human exploration requiring new and exciting architectures and technologies. One top goal for NASA is to provide optical communications supporting humans on the Moon and Mars. This talk will discuss the evolution and architecture of advanced communication technologies for exploring the planets.

Elise Neel
Senior Vice President, Verizon New Business Incubation, Verizon, USA
5G and the Promise of Industry 4.0

Industry 4.0 is a new technology chapter promising fully autonomous, self-improving processes of matching work to the most appropriate set of resources; robot, human, drone or machine. This session will cover how 5G is foundational technology enabling connection, management and operation of the physical, digital and biological elements required for this autonomous world.

Meet the Plenary Speakers

Immediately following the plenary session, join John Bowers, James Green and Elise Neel in a follow-up, moderated discussion. The session will dig deeper into the thought-provoking insights shared during the plenary session, and it provides an opportunity to ask questions.

Workshops

The workshops provide opportunities to discuss and debate the latest technologies. Workshop topics are controversial in nature and meant to be highly interactive amongst both the speakers and the audience.

Can Optical Communication Infrastructure Double its Values by Introducing Fiber Sensing?
Fiber sensing technologies are being introduced to explore applications leveraging the existing optical infrastructure but will this double its value?

Single-Carrier vs Multi-Carrier for >800G Coherent Optics: A Revived Debate After a Decade
The workshop will shed light on the future design of ultrahigh speed coherent optics for the Terabit era.

Is Optical Wireless Still Relevant for 6G or Will Fiber-Radio Be Enough?
Let’s discuss why Optical Wireless Communications hasn’t had the anticipated success in 5G deployments and identify areas of potential limitations for Fiber Radio systems and areas of opportunity for OWC in the 6G era.

How Will the Future DC Infrastructure Be in the Hyperconnectivity Era?
Explore photonic technologies and network architectures for enabling the next generation DC infrastructure and edge computing.

Will Machine Learning Replace QoT/Performance Estimation and Has it Reached the Stage of Commercial Deployment?
Discuss the future role of ML in optical networks and what are the technical challenges to bring ML from research into real-world applications and products.

Is Paradigm Shift from Pluggable Optics to Co-Packaged Optics Inevitable in the Next Generation of Datacenters?
This workshop debates several controversial ideas to visualize the future direction of co-packaged optics and pluggable optics technologies.

How Will 200G (and Beyond) per Lambda IM/DD Compete with Coherent Technology?
Join the debate on IM/DD vs. coherent detection for intra data center applications.

What Will the Future ML and AI Systems Look Like?
Join this two-part workshop. Part I will address the challenges of data centers and computing systems in coping with explosively growing ML and AI workloads. Part II will discuss emerging neuromorphic and quantum computing technologies to efficiently accelerate ML workloads.

Time to Face the Cost Per Bit “Crunch”: Trends and Expectations for the Next Decade
Debate the future adoption of SDM and bandwidth extension especially in light of the capacity and economic challenges ahead.

What Are the Prospects and Challenges for Hollow-Core Fibers in Optical Communications?
Is there a genuine reason to be excited about the prospects of hollow-core fiber technology as a disruptive transmission medium for optical communications?
Exhibition

This year, the Exhibition will be held in person only for attendees. View the floor plan and current exhibitors, review company descriptions and find products and vendors of interest. ofcconference.org/exhibithall

A Showcase for Solutions

Participating companies have the products and technologies to build your competitive edge. The entire spectrum of products will be on display: network equipment and software, active and passive components, test and manufacturing equipment, data center/IT products and cable and fiber. See what’s new and identify technology must-haves for your business. Only OFC offers the size and scope to compare and contrast vendors, giving you the information you need to make all your technology purchasing decisions in one place.

There will also be multi-vendor interoperability demos on the show floor including booths by Ethernet Alliance, OIF, OpenROADM and 400ZR+.

Experience the most comprehensive exhibition in the industry.

- See new products
- Compare products
- Meet with vendors
- Explore customized solutions
- Establish new contacts
- Network with colleagues
- Learn what’s hot
- Attend business sessions

Attend Industry Programs on the Show Floor

Three theaters on the show floor feature presentations by experts from major global brands and key industry organizations. Get high-level takes on hot topics, market trends and insight into the future. Learn about the state of the industry, emerging technologies and recommended courses of action to tackle today’s toughest business challenges. Industry programs cover intra and inter data center connectivity, network infrastructure, access networks, optical systems and components and standard and industry group updates.

Hear Industry Leaders from Service Providers, End Users and Equipment Manufacturers

- Alibaba
- AT&T
- Bell
- BT
- Charter
- China Mobile
- Ciena
- Cisco Systems
- Colt
- Cox
- Google
- II-VI
- Innolight
- Lightmatter
- Marvell
- Meta (formerly Facebook)
- Microsoft
- Nokia
- Nvidia
- Verizon

Industry Groups
Show Floor Programs

Market Watch
Get an insider’s look at today’s most important industry developments. This three-day series of panel discussions addresses the latest application topics and business issues in optical communications and networking. Market Watch features esteemed speakers from top carriers, system vendors, market analyst firms and component companies.

Organizer
N5 Network Operator Summit and Market Watch Sub-committee Chair
Andrew Schmitt, Founder, Cignal AI, USA

Sponsored by
Infinera

Panel 1: State of the Industry
Tuesday, 08 March, 10:30 – 12:00
Moderator
Tim Doiron, Senior Director, Solution Marketing, Infinera, USA

The State of the Industry is one of the most highly anticipated Market Watch panels at OFC. Each year, a mix of industry and financial analysts present their unique view on the current state of the optical market, discussing areas that encompass components, subsystems and system manufacturers as well as market influences and drivers.

Speakers
Alex Derbes, Portfolio Manager, Investor, Gilder Gagnon Howe & Co., USA
Mike Genovese, Managing Director and Senior Research Analyst, WestPark Capital, USA
Lisa Huff, Senior Principal Analyst, Optical Components, Omdia, USA
Martin Vallo, Market & Technology Analyst, Yole, France
Scott Wilkinson, Lead Analyst, Networking Components, Cignal AI, USA

Panel II: The Path to Co-Packaged Optics for Switching Applications
Tuesday, 08 March, 12:30 – 14:00
Moderator
Robert Blum, Director of Marketing and New Business, Intel, USA

The industry continues to debate the merits of co-packaged optics and is now reaching the point where deployments of Ethernet switches with co-packaged optics are viable. This panel will review the benefits and challenges around the deployment of co-packaged Ethernet switches from both a technical and commercial perspective.

Speakers
Guy Azrad, Senior Vice President and General Manager, Switch Business, Marvell, Israel
Andreas Bechtolsheim, Chairman and Chief Development Officer, Arista Networks, USA
Alexis Bjorlin, Senior Vice President and General Manager, Optical Systems Division, Broadcom, USA
Ed Doe, Vice President, GM – Barefoot Division (Network & Edge Group), Intel, USA
Greg Young, Vice President & General Manager, Cisco, USA

Panel III: Building the Ecosystem for Converged IP/Optical Networks — Beyond 400G Pluggables
Tuesday, 08 March, 14:30 – 16:00
Moderator
Helen Xenos, Senior Director, Portfolio Marketing, Ciena, USA

This panel provides insights and unique perspectives resulting from early converged IP/Optical deployments or real network studies, including commentary around photonic line system compatibility, migration plans of existing networks and essential capabilities required from an operational perspective.

Speakers
Chris Ellefsen, Director, Core Optical Advanced Engineering, Charter, USA
Robert Keys, Senior Director of Optical Transmission R&D, Ciena, Canada
Jeffrey Valley, Vice President, IP Consulting Engineering, Network Infrastructure, Nokia, Canada
Daniel Voyer, Technical Fellow, Network Bell, Canada
Glenn Wellbrock, Director, Optical Transport Network – Architecture, Design & Planning, Verizon, USA

Panel IV: The Role of Optics in Future Machine Learning Architectures
Wednesday, 09 March, 15:30 – 17:00
Moderator
Ryohei Urata, Technical Lead/Manager, Google, USA

The panel will discuss various architectures and approaches to scaling ML, and the potential role of optical technologies: from tighter integration, higher speed interfaces, to lower latency channels/compute.

Speakers
Paolo Costa, Principal Researcher, Microsoft, USA
Larry Dennison, Director of Network Research, Nvidia, USA
Nick Harris, CEO, Lightmatter, USA
Robert Stone, Technical Sourcing Manager, Meta (formerly Facebook), USA

Panel V: Evolution of Coherent Transceiver Architectures for Specific Applications
Thursday, 10 March, 10:30 – 12:00
Moderator
Hideki Isono, Senior Professional Engineer, Fujitsu Optical Components, Japan

In this session, the panel will explore the different paths of coherent transceivers design (modular, pluggables, co-packaged, onboard) over the next three to five years.

Speakers
To be announced.

Panel VI: Building the Next Generation 3.2T Transceiver
Thursday, 10 March, 12:30 – 14:00
Moderator
Lian Qin, Associate Vice President, Marvell, USA

As transceiver data rates approach 1.6T and 3.2T, the industry is in discussion on the transceiver form factors between pluggable and CPO. This session will provide a better understanding of the industry trend and ecosystem for 3.2T inside data center transceivers.

Speakers
Cedric Lam, Principal Engineer, Google, USA
Beck Mason, General Manager, Lumentum, USA
Osa Mok, Chief Marketing Officer, Innolight, USA
Radha Nagarajan, CTO & Senior Vice President, Platforms, Marvell, USA
James Stewart, Director, Optical Hardware Engineering, Meta (formerly Facebook), USA
Chongjin Xie, Senior Director, Alibaba, USA
**Network Operator Summit**

Get the inside perspective from network operators.
This dynamic program presents the inside perspective from service providers and network operators - their issues, drivers and how their requirements may impact the future of the industry. Everyone in the supply chain, from equipment manufacturers to components, will want to hear what’s next in meeting the needs of all network operators.

**Organizer**
N5 Network Operator Summit and Market Watch Sub-Committee Chair

**Panel I: Operator Investment Directions for FTTH and Access Networks**
Wednesday, 09 March, 11:30 – 13:00

**Moderator**
Ed Harstead, Lead Technologist, Fixed Networks Division, Nokia Corp., USA

The world changed for fixed network operators during the pandemic. End user’s permanently increased traffic demand and changed traffic patterns. While existing access networks coped reasonably well, operators face critical investment decisions, which this panel will explore. Will operators leverage PON infrastructure at large scale for mobile transport; what speeds will be required in this decade, 10G, 25G, 50G; and how to spend the allocation of massive subsidies by the US government for rural networks.

**Speakers**
- Ian Horsley, Senior Manager Access Transmission Research, BT Openreach, UK
- Robert Kuse, Director Cox Business Network Engineering, Cox, USA
- Nick Payant, Vice President, Connectivity and Reliability, Bell, Canada
- Ed Walter, Area Manager Network Planning, AT&T, USA
- Dechao Zhang, Manager, China Mobile, China

**Panel II: Using Disaggregation as a Strategy to Modernize the Network**
Wednesday, 09 March, 13:30 - 15:00

**Moderator**
Art Nichols, Vice President – Architecture & Technology, Windstream, USA

This panel will explore the benefits of disaggregation and which application spaces best harness its advantages and the obstacles involved for widespread adoption/deployment. It will also explore what strategies and innovations have been developed to approach challenges with multi-vendor architectures.

**Speakers**
- Vivek Gaur, Vice President Network Engineering, Colt, India
- Aaron Werley, Vice President Technology, Zayo Group, USA
- Gert Sarlet, Director Product Management, II-VI, Sweden

**Data Center Summit**
This program focuses on next generation optical technologies for intra and/or inter data center connectivity. It discusses evolving data center requirements for technologies, equipment, applications and deployment scenarios in hyperscale and enterprise.

**Data Center Summit: Keynote**
Tuesday, 08 March, 10:30 – 11:00

**Speaker**
Ashish Vengsarkar, Head of Optical Networking, Google, USA

**Panel I: Scaling Data Center Interconnect**
Tuesday, 08 March, 11:30 – 13:00

**Moderator**
Donyel Jones-Williams, Senior Director of Product Marketing, Cisco Systems, USA

Cloud and data center operators will review the methods and ideas they are exploring to scale data center interconnect designs while improving performance. These operators need to increase operational efficiency as traffic increases and are considering concepts such as pluggable coherent, disaggregated optical equipment and open line systems. In this panel operators will share how they are considering these concepts to make the backbones of their global data centers scalable and sustainable.

**Speakers**
To be announced.

**Panel II: Solving the Challenge of Moving Data Centers to the Network Edge**
Tuesday, 08 March, 13:30 – 15:00

**Moderator**
Andrew Schmitt, Founder, Cignal AI, USA

This panel will discuss the latest trends in data centers from an infrastructure and networking hardware perspective with a focus on the differences from the present mode of operation. What architectures are being considered to reduce power consumption, size, and cost, and how must the network evolve to accommodate the growth of computing at the edge of the network?

**Speakers**
To be announced.
Intra and Inter Data Center Connectivity

What Makes Ethernet, Ethernet?
Wednesday, 09 March 10:30 – 11:30
Organizer
Ethernet Alliance
Moderator
David Rogers, Senior Program Manager, Teledyne LeCroy PSG, USA

The panel will cover the defining aspects of Ethernet as adoption continues to spread across application spaces with increasing diversity in its rates and implementation and how the industry seeks to preserve interoperation regardless of implementation. When I see it, how do I know it is Ethernet?

Speakers
Paul Brooks, Optical Transport Technology and Strategy, Viavi Solutions, Germany
Faisal Dada, Director Strategic Marketing & Principal Architect, Xilinx, USA
Jeff Maki, Distinguished Engineer II, Juniper Networks, USA
Ray Nering, Cisco Systems, USA

Deployment of 400ZR and the Ongoing OIF Work to Define 800ZR/LR
Wednesday, 09 March 12:00 – 13:00
Organizer
Optical Internetworking Forum (OIF)
Moderator
Richard Ward, Engineering R&D, Intel; Market Awareness & Education Committee Co-Chair, Physical & Link Layer, OIF, USA

The OIF released the 400ZR Implementation Agreement in March 2020 and wide-scale deployment is well underway for this new interoperable coherent standard. In this panel OIF industry experts give an overview of 400ZR, including ongoing maintenance, and highlight its deployment status, networking topologies, and use cases. The panel will also give an overview of current 800ZR/LR technical work.

Speakers
Joseph Berger, Associate Vice President Marketing, Marvell Technology, USA
Ian Betty, Senior Director, Coherent Modem Development Team, Ciena, Germany
Mark Filer, Optical Network Architect, Google; Vice President and Board Member, OIF, USA
Tom Williams, Senior Director of Marketing, Cisco Systems, USA

Network Infrastructure
Evolution of Optics for Mobile (MOPA)
Wednesday, 09 March 13:30 – 14:30
Organizer
OpenZR+ MSA
Moderator
Tom Williams, Senior Director of Marketing, Cisco Systems, USA

The session will provide an overview of OpenZR+, including MSA objectives, the status of specification updates and network operator use cases.

Speakers
Hacene Chaouch, Distinguished Engineer, Arista, USA
Rob Rockell, Comcast, USA
Atul Srivastava, NEL America, USA
Walid Wakim, Distinguished Engineer, Cisco Systems, USA

OpenROADM Updates and Demo
Wednesday, 09 March 15:00 – 16:00
Organizer
OpenROADM MSA
Moderator
Balagangadhar Bathula, Principal Member of Technical Staff, AT&T, USA

This session will provide updates from the OpenROADM MSA covering aspects of B100G implementations, the development efforts of TransportPCE with the primary focus on higher bit rate services and the status of the OpenROADM interoperability demo.

Speakers
Andrea Fumagalli, Professor, Electrical Engineering, University of Texas, Dallas, USA
Tomizawa Masahito, Vice President, Head of Device Innovation Center, NTT, Japan
Olivier Renais, Optical Transport Network Architect, Orange, France
Yoshiaki Sone, Senior Researcher, NTT, Japan
Building Open & Disaggregated Networks
Thursday, 10 March 13:00 - 14:00
Organizer
Telecom Infra Project (TIP)
Moderator
Diego Landa, Meta (formerly Facebook), USA

This panel will provide the latest from the Open Optical & Packet Transport Project Group covering from SDN standards for IP/MPLS, Optical and Microwave Transport technologies to an open-source multi-vendor tool for optical network planning.

Speakers
Juan Pedro Fernández Palacios, Head of Unit Transport Networks, Telefonica, Spain
Gert Grammel, Solutions and Network Architecture, Juniper Networks, Germany
Esther Le Rouzic, Research Engineer, Orange, France
Stefan Melin, Network Architect, Optical Networks, Telia Company, Sweden
Hans-Juergen Schmidtke, Director of Engineering, Meta (formerly Facebook), USA

The Edge Cloud: Descending Cloud — Ascending Edge, and What it Means for Optical Networks
Thursday, 10 March 13:30 - 14:30
Organizer
IEEE Future Directions Committee
Moderator
Douglas N. Zuckerman, Consultant, Perspecta Labs, USA

This panel will review and debate the increasingly important expansion of cloud and DCI to the edge (aka edge compute) and expanding the capacity and use of coherent optical in the “edge” of Cloud/DCI as the network upgrades to 800GE and beyond.

Speakers
Mahmoud Daneshmand, Industry Professor, Stevens Institute of Technology, USA
Kathy Grise, Senior Program Director, IEEE, USA
Loukas Paraschis, IEEE Communications Society, USA
Peter Winzer, Fellow, IEEE, Nubis Communications, USA

Access Networks
The Future of PON: 25G or 50G?
Tuesday, 08 March 13:00 - 14:00
Moderator
Frank Effenberger, Vice President Fixed Access Network Lab, Futurewei Technologies, USA

This session will review the two potential candidates for the next generation of PON. It will have representation from operators and vendors on both sides of the issue.

Speakers
Philippe Chancloc, Team Manager, Fixed Access Networks (FAN), Orange Labs, France
Junichi Kani, Senior Distinguished Researcher, NTT, Japan
Nick Payant, Bell, Canada
Ed Walter, Area Manager Network Planning, AT&T, USA
Dezhi Zhang, China Telcom, China

The Converged Mobile Xhaul and FTTH Fiber Access Opportunity
Tuesday, 08 March 15:30 - 16:30
Moderator
Bernd Hesse, BBF Marketing Chair, Calix, Germany

A single converged fiber fixed and mobile access network has been an area of interest for FMC and wholesale providers ever since the first FTTH deployments. With new advancements in PON technologies and the roll out of 5G and the demands that puts on fronthaul, midhaul and backhaul, what is the reality today and in years to come to deploy a single cost-effective fiber access network?

Speakers
Andrew Bender, Chief Technology Officer and BD Leader, DZSi, USA
Frank Effenberger, Fellow, Futurewei, USA
Ron Heron, Director of Network and Portfolio Strategy, Nokia, USA
Julie Kunstler, Chief Analyst, OMDIA, USA
David Tomalin, Group Chief Technology Officer, CityFibre, UK
Ed Walter, Director Member of Technical Staff, AT&T, USA
Rajash Yadav, Associate Fellow, Verizon, USA

F5G Update: Emerging Use Cases and Demonstrations
Thursday, 10 March 10:30 - 11:30
Organizer
European Telecommunications Standards Institute (ETSI) Industry Specification Group (ISG)

Moderator
Xiang Liu, Vice President Optical Transport and Access, Futurewei Technologies, USA

This session provides an update on the progress made by the ETSI ISG on F5G. It will cover use cases recently published cloud virtual reality (Cloud-VR) and fiber-to-the-room (FTTR), as well as those to be released in 2022 such as industrial PON, rural broadband, and edge/cloud-based control of industrial robots and automated guided vehicles.

Speakers
Johannes Fischer, Head of Group Digital Signal Processing and Data Analytics, Fraunhofer HHI, Germany
Luca Pesando, Chairman of ETSI's F5G ISG, Telecom Italia, Italy
Gael Simon, Research Engineer, Orange Labs, France
Jun Zhou, Transport and Access Standards, Huawei EU Research Institute, Germany
Space-Based Optical Communications — Unleashing the Potential of Space
Wednesday, 09 March 14:30 - 15:30
Moderator
Greg Kuperman, Program Manager, DARPA, USA
Applications for coherent optical communications have expanded into orbit, enabling high speed satellite communications. This panel will discuss recent advances in optical communications for space-based applications and their impact on global connectivity.

Speakers
To be announced.

Beyond 400G — IEEE Update on Progress Towards 800 Gbe and 1.6 TbE
Wednesday, 09 March 16:00 - 17:00
Organizer
IEEE
Moderator
Mark Nowell, Fellow, CISCO, USA
The IEEE panel on next gen 800GbE optical interfaces and future 1.6TbE standardization will cover new developments happening in the industry and IEEE which include interoperable 800 Gbps coherent spec and new work that covers 1.6T or co-packaging.

Speakers
John D’Ambrosia, Distinguished Engineer, IP Standards Team, Futurewei (subsidiary of Huawei), USA
Samuel Kocsis, Director, Standards & Technology, Amphenol, USA
Cedric Lam, Engineering Director, Google Fiber, Google, USA
Gary Nicholl, Principal Engineer, Cisco Systems, Canada

Hollow Core Fiber — Ready for Prime Time?
Thursday, 10 March 12:00 - 13:00
Moderator
Scott T. Wilkinson, Lead Analyst, Hardware, Cignal AI, USA
In this session, manufacturers and users of hollow core optical fiber will present their latest results and predictions for the future of hollow core.

Speakers
Daryl Inniss, Director, New Business Development, OFS, USA
Maurice O’Sullivan, Senior Director, Waveologic Science, Ciena, USA
Neil Parkin, Research Manager, BT, UK
Tony Pearson, Vice President, Sales and Marketing, Lumenisity, USA

Standard and Industry Group Updates
AIM Photonics and the Next PIC Generation
Tuesday, 08 March 11:30 - 12:30
Organizer
AIM Photonics
Moderator
David Haraime, Chief Operating Officer; Director of EPDA, Test, Assembly and Packaging and Process Development, AIM Photonics, USA
The session topics are: AP-SUNY PDK and component design for high performance photonic integrated circuits; AIM Photonics MPW and test, assembly, and packaging options; and AIM Photonics PIC technology and perspective on the future of silicon photonics and electronics.

Speakers
David Haraime, Chief Operating Officer; Director of EPDA, Test, Assembly and Packaging and Process Development, AIM Photonics, USA
John Bowers, Co-Director, AIM Photonics; Distinguished Professor and Director of the Institute for Energy Efficiency, Univ. of California, Santa Barbara, USA
Michael Watts, Chief Technology Officer, AIM Photonics; CEO, Analog Photonics, USA

DARPA Photonics Programs
Tuesday, 08 March 14:30 - 15:30
Organizer
DARPA
Moderator
Gordon Keeler, Program Manager, DARPA, USA
This session will provide a broad overview of DARPA’s photonics portfolio, specifically highlighting technical PIPES results and a higher-level update on other DARPA programs.

Speakers
Firooz Aflatouni, Associate Professor, Electrical and Systems Engineering, University of Pennsylvania, USA
Keren Bergman, Charles Batchelor Professor of Electrical Engineering; Scientific Director, Center for Integrated Science and Engineering, Dept. of Electrical Engineering, Columbia University, USA
Yohan Franz, Vice President Wired Communication Engineering, Xilinx, USA
Gordon Keeler, Program Manager, DARPA, USA

Technology Showcase
Leading companies present the latest cutting-edge developments in OFC’s Expo Theater.
Attendees tell us that their #1 reason for attending OFC is to see new products and developments and keep up-to-date on industry trends. These 30-minute Technology Showcase presentations make it easy for you to learn about new cutting-edge products and services being offered by some of the world’s leading companies. Showcases are listed in the conference schedule.
Registration

ofcconference.org/registration

OFC offers flexible and convenient options for all registrants. We recognize that 2022 will continue to be a year of transition, with some participants able to attend in person and others who must continue to rely on a virtual platform. No matter your registration choice, you will have the ability to modify your registration without penalty.

OFC will be presented in a hybrid format with in-person and virtual programming. Consult the conference website to learn what programs are accessible for each registration type.

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* Member of IEEE Communications Society, IEEE Photonics Society or OPTICA (formerly OSA).
** Exhibits Pass Plus is not for use by presiders, poster presenters or speakers. These audiences must register as a Full Conference attendee.

Hotel

ofcconference.org/hotel-travel/

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When you reserve through the conference room block, you help OFC Management keep overall meeting costs down. Check hotel availability, review current hotel listings and make hotel reservations on the conference website.

San Diego Convention Center
111 W. Harbor Drive
San Diego, California 92101

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<th>Hotel</th>
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* Hotel rates are listed in US dollars and do not include taxes or any hotel fees. Rates shown are for single rooms. Double rooms may have an increased rate.
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