

2022 Imaging and Applied Optics Congress and 2022 Optical Sensors and Sensing Congress
10-15 July 2022, Hyatt Regency Vancouver, Vancouver, British Columbia, Canada
Hybrid Event – Pacific Daylight Time (UTC - 07:00)

Agenda of Sessions — Sunday, 10 July

Pacific Daylight Time (PDT, UTC - 07:00)	
15:00–18:00	Registration, Regency Foyer, Balmoral, Windsor

Monday, 11 July

Pacific Daylight Time (PDT, UTC - 07:00)	Regency A	Regency B	Regency C	Regency D	Plaza A	Plaza B
	Computational Optical Sensing and Imaging	Laser Applications to Chemical, Security and Environmental Analysis	Optical Sensors	Optical Sensors	Optics and Photonics for Sensing the Environment	Applied Industrial Spectroscopy
07:00–17:30	Registration, Regency Foyer, Balmoral, Windsor			Registration, Regency Foyer, Balmoral, Windsor		
08:00–10:00	CM1A • Advances in Holography	LM1B • Imaging Techniques	SM1C • Optical Fibre Sensors: Structural Health Monitoring and Sensing in Harsh Environments	SM1E • Laser Based Sensors I	EM1D • Photonic Integrated Sensors (ends at 09:45)	AM1F • Agri-Photonics I (ends at 09:15)
10:00–10:30	Coffee Break and Networking, Regency Foyer, Balmoral, Windsor			Coffee Break and Networking, Regency Foyer, Balmoral, Windsor		
10:30–12:30	CM2A • Phase Imaging and Phase Retrieval	LM2B • Ultrafast Laser Applications	SM2C • Distributed and Gratings-Based Fibre Sensors	JM2E • Optical and Photonic Technologies Addressing the COVID-19 Pandemic Needs (Joint AIS and Sensors)	EM2D • Atmospheric Monitoring	AM2F • Energy and Extraction Industries
12:30–14:00	Lunch (On Own)			Lunch (On Own)		
14:00–16:00	CM3A • Non-Line-of-Sight (NLoS) Imaging and Imaging through Scattering Media	LM3B • Remote and Environmental Sensing (Joint Theme ES and LACSEA Remote Sensing)	SM3C • Terahertz Sensors I	SM3E • Biomarker Sensing	EM3D • Dual Frequency Comb Spectroscopy (Joint Theme ES and LACSEA on Combs) (ends at 15:45)	AM3F • Agri-Photonics II (ends at 15:30)
16:00–16:30	Coffee Break and Networking, Regency Foyer, Balmoral, Windsor			Coffee Break and Networking, Regency Foyer, Balmoral, Windsor		
16:30–18:30	CM4A • Emerging Themes in Computational Imaging (ends at 18:15)	LM4B • Infrared Sensing and Frequency Combs (Joint Theme ES and LACSEA on Combs)	SM4C • Solid-State Quantum Sensing (ends at 18:15)	SM4E • Infrared and Raman Sensing	EM4D • Remote Sensing (Joint Theme ES and LACSEA on Remote Sensing)	SpE 1 • Agri-Photonics Panel Discussion

Key to Conference Abbreviations

Imaging Topicals

3 = 3D Image Acquisition and Display: Technology, Perception and Applications
 O = Adaptive Optics: Methods, Analysis and Applications
 C = Computational Optical Sensing and Imaging
 I = Imaging Systems and Applications
 P = Propagation Through and Characterization of Atmospheric Oceanic Phenomena

Sensing Topicals

A = Applied Industrial Spectroscopy
 L = Laser Applications to Chemical, Security and Environmental Analysis
 E = Optics and Photonics for Sensing the Environment
 S = Optical Sensors

Agenda of Sessions — Tuesday, 12 July

	Regency A	Regency B	Regency C	Regency D	Plaza A	Plaza B	Plaza C	Georgia A	Georgia B
Pacific Daylight Time (PDT, UTC - 07:00)	Computational Optical Sensing and Imaging	Laser Applications to Chemical, Security and Environmental Analysis	Optical Sensors	Optical Sensors	Optics and Photonics for Sensing the Environment	Applied Industrial Spectroscopy	3D Image Acquisition and Display: Technology, Perception and Applications	Propagation Through and Characterization of Atmospheric Oceanic Phenomena	Imaging Systems and Applications
07:00–17:30	Registration, <i>Regency Foyer, Balmoral, Windsor</i>								
07:45–09:30	JTU1A • Joint Introductory Remarks and Plenary Session I (Sensing Congress) <i>Regency DEF</i>								
09:30–11:00	JTU2A • Joint Poster Session I (On-Site) Coffee Break, Career Fair and Exhibits <i>Regency Foyer, Balmoral, Windsor</i>								
11:00–12:30	CTu3F • Optical Computing and Phase Retrieval	LTu3B • Combustion Diagnostics I	STu3C • Terahertz Sensors II (ends at 12:15)	SpE2 • Quantum Sensing Panel	ETu3H • Novel Techniques for Environmental Sensing I	ATu3G • Disease and Pathogen Detection (ends at 12:15)	3Tu3A • Deep Learning for 3D Imaging	PTu3D • Turbulence Modeling	ITu3E • Super Resolution, Imaging, Microscopy I
12:30–14:00	Lunch (On Own)								
14:00–16:00	CTu4F • Advances in Computational Microscopy I	LTu4B • Nuclear Diagnostics	STu4C • Optical Fibre Sensors: Medical Applications and Biosensors	STu4G • Quantum-Assisted Measurements (ends at 15:45)	ETu4H • Novel Technique for Environmental Sensing II (ends at 15:45)	SpE3 • From Student to Career: A Look Inside Different Career Paths	3Tu4A • Integral Imaging	PTu4D • Measurements	ITu4E • Practical Optical Devices: OCT, Endoscopy, LIDAR I
16:00–16:30	Coffee Break, Career Fair and Exhibits, <i>Regency Foyer, Balmoral, Windsor</i>								
16:30–18:00	CTu5F • Advances in Computational Microscopy II	LTu5B • Hypersonics Diagnostics	STu5C • Point of Care and Compact Biosensors			ATu5G • Material Identification and Anti-Counterfeiting (ends at 17:45)	3Tu5A • 3D Sensing and Processing (ends at 18:45)	JTu5D • Wavefront Sensing and Turbulence I (Joint AO and pcAOP)	ITu5E • Deep Learning, Computational Optics, Image Processing and Classification I

Key to Conference Abbreviations

Imaging Topicals

3 = 3D Image Acquisition and Display: Technology, Perception and Applications

O = Adaptive Optics: Methods, Analysis and Applications

C = Computational Optical Sensing and Imaging

I = Imaging Systems and Applications

P = Propagation Through and Characterization of Atmospheric Oceanic Phenomena

Sensing Topicals

A = Applied Industrial Spectroscopy

L = Laser Applications to Chemical, Security and Environmental Analysis

E = Optics and Photonics for Sensing the Environment

S = Optical Sensors

Agenda of Sessions — Wednesday, 13 July

	Regency A	Regency B	Regency C	Regency D	Plaza A	Plaza B	Plaza C	Georgia A	Georgia B
Pacific Daylight Time (PDT, UTC - 07:00)	Computational Optical Sensing and Imaging	Laser Applications to Chemical, Security and Environmental Analysis	Optical Sensors		MIXED	Applied Industrial Spectroscopy	3D Image Acquisition and Display: Technology, Perception and Applications	Propagation Through and Characterization of Atmospheric Oceanic Phenomena	Imaging Systems and Applications
07:30–17:30	Registration, <i>Regency Foyer, Balmoral, Windsor</i>								
08:00–09:30	CW1B • Compressive Sensing and Single-Pixel Imaging	LW1D • Combustion Diagnostics II	SW1E • Optical Fibre Sensors		EW1G • Marine and Argriculture Sensing	AW1H • Microplastics and Circular Economy	3W1A • 3D Imaging and Microscopy	PW1F • Aerosols and Non-Kolmogorov Effects	IW1C • Super Resolution, Imaging, Microscopy II
09:15–11:00	SpE4 • Recent Advances in Free-Space Optical Communications, <i>Regency D</i>								
09:30–11:00	JW2A • Joint Poster Session II (Remote) Coffee Break, Career Fair and Exhibits <i>Regency Foyer, Balmoral, Windsor</i>								
11:00–12:30	CW3B • Topics in Structured Illumination and Super-Resolution	LW3D • Diagnostics of Aerosols	SW3E • Next Generation Sensors		OW3G • Microscopy I	AW3H • Climate Change I - Methane Detection (ends at 12:15)	3W3A • 3D Imaging and Microscopy Hardware	PW3F • Underwater and Medium Effects	IW3C • Optical Design, Fabrication and Characterization I
12:30–14:00	Lunch (On Own)								
14:00–16:00	CW4B • Computational Spectroscopy and Spectral Imaging	LW4D • Photo-Acoustic Diagnostics (ends at 15:45)	SW4E • Laser Based Sensors II		OW4G • Adaptive Optics for the Eye and Industrial Innovation	AW4H • Climate Change II - Gas Detection	3W4A • 3D Microscopy	PW4F • Beam Propagation	JW4C • Advances in the Design, Fabrication and Characterization of Optical Sensors I (Joint COSI and IS)
16:00–16:30	Coffee Break and Networking, <i>Regency Foyer, Balmoral, Windsor</i>								
16:30–18:00		JW5A • Joint Postdeadline Paper Session I	JW5B • Joint Postdeadline Paper Session II	JW5C • Joint Postdeadline Paper Session III	JW5D • Joint Postdeadline Paper Session IV				
18:00–20:00	Joint Conference Reception <i>Seymour, Grouse, Stanley, Cypress, English Bay</i>								

Key to Conference Abbreviations

Imaging Topicals

3 = 3D Image Acquisition and Display: Technology, Perception and Applications
 O = Adaptive Optics: Methods, Analysis and Applications
 C = Computational Optical Sensing and Imaging
 I = Imaging Systems and Applications
 P = Propagation Through and Characterization of Atmospheric Oceanic Phenomena

Sensing Topicals

A = Applied Industrial Spectroscopy
 L = Laser Applications to Chemical, Security and Environmental Analysis
 E = Optics and Photonics for Sensing the Environment
 S = Optical Sensors

Agenda of Sessions — Thursday, 14 July

Pacific Daylight Time (PDT, UTC - 07:00)	Regency A	Regency B	Plaza B	Plaza C	Georgia A	Georgia B
	Computational Optical Sensing and Imaging	Laser Applications to Chemical, Security and Environmental Analysis	Adaptive Optics: Methods, Analysis and Applications	3D Image Acquisition and Display: Technology, Perception and Applications	Propagation Through and Characterization of Atmospheric Oceanic Phenomena	Imaging Systems and Applications
07:00–17:30	Registration, Regency Foyer, Balmoral, Windsor					
07:45–09:30	JTh1A • Joint Introductory Remarks and Plenary Session II (Imaging Congress) Regency DEF					
09:30–11:00	JTh2A • Joint Poster Session III (On-Site) Coffee Break, Career Fair and Exhibits Regency Foyer, Balmoral, Windsor					
11:00–12:30	CTh3C • Advances in Ptychography I	LTh3E • Combustion Imaging and Thermometry	OTh3B • Microscopy II	3Th3A • 3D Image Acquisition	PTH3F • Novel Beams	ITh3D • Deep Learning, Computational Optics, Image Processing and Classification II (ends at 13:00)
12:30–14:00	Lunch (On Own)					
14:00–16:00	CTh4C • Advances in the Design of Computational Imaging Systems	LTh4E • Novel Technology and Special Applications (ends at 15:45)	OTh4B • Wavefront Correction and Industrial Innovation	3Th4A • 3D Augmented Reality and 3D Imaging	PTH4F • AI and Machine Learning in pcAOP (ends at 15:45)	ITh4D • Practical Optical Devices: OCT, Endoscopy, LIDAR II (ends at 15:45)
16:00–16:30	Coffee Break, Career Fair and Exhibits, Regency Foyer, Balmoral, Windsor					
16:30–18:00	CTh5C • Computational 3D Imaging and 3D Displays	LTh5E • Gas Sensing	OTh5B • Microscopy III	3Th5A • 3D Sensing and Imaging Hardware	PTH5F • Imaging and Simulation	ITh5D • Super Resolution, Imaging, Microscopy III

Key to Conference Abbreviations

Imaging Topicals

3 = 3D Image Acquisition and Display: Technology, Perception and Applications

O = Adaptive Optics: Methods, Analysis and Applications

C = Computational Optical Sensing and Imaging

I = Imaging Systems and Applications

P = Propagation Through and Characterization of Atmospheric Oceanic Phenomena

Sensing Topicals

A = Applied Industrial Spectroscopy

L = Laser Applications to Chemical, Security and Environmental Analysis

E = Optics and Photonics for Sensing the Environment

S = Optical Sensors

Agenda of Sessions — Friday, 15 July

Pacific Daylight Time (PDT, UTC - 07:00)	Regency A	Regency B Machine Learning Topic	Georgia B	Plaza B	Plaza C
	Computational Optical Sensing and Imaging	MIXED	Imaging Systems and Applications	Adaptive Optics: Methods, Analysis and Applications	3D Image Acquisition and Display: Technology, Perception and Applications
07:00–14:30	Registration, Regency Foyer, Balmoral, Windsor				
08:00–10:00	CF1D • Advances in Ptychography II	LF1C • Machine Learning and Computational Sensing (Joint Theme COSI and LACSEA on Machine Learning)		JF1B • Wavefront Sensing and Turbulence II (Joint AO and pcAOP)	3F1A • 3D Sensing and Imaging
10:00–10:30	Coffee Break and Networking, Regency Foyer, Balmoral, Windsor				
10:30–12:30		CF2C • Spectral Imaging and Machine Learning for Sensing and Imaging (Joint Theme COSI and LACSEA on Machine Learning) (ends at 12:00)	JF2D • Advances in the Design, Fabrication and Characterization of Optical Sensors II (Joint COSI and IS)	OF2B • FSO Wavefront Sensing and Control	3F2A • 3D Reconstruction and Display (ends at 12:00)
12:30–14:00	Lunch (On Own)				
14:00–16:00		IF3B • Optical Design, Fabrication and Characterization II (ends at 15:00)			3F3A • Sensing, Imaging, and Microscopy

Key to Conference Abbreviations

Imaging Topicals

3 = 3D Image Acquisition and Display: Technology, Perception and Applications
 O = Adaptive Optics: Methods, Analysis and Applications
 C = Computational Optical Sensing and Imaging
 I = Imaging Systems and Applications
 P = Propagation Through and Characterization of Atmospheric Oceanic Phenomena

Sensing Topicals

A = Applied Industrial Spectroscopy
 L = Laser Applications to Chemical, Security and Environmental Analysis
 E = Optics and Photonics for Sensing the Environment
 S = Optical Sensors