ASME QNDE 2025

52ND ANNUAL REVIEW OF PROGRESS IN QUANTITIVE NONDESTRCUTIVE EVALUATION

PROGRAM

CONFERENCE
JULY 23–25, 2025

HOTEL BONAVENTURE
MONTREAL, QUEBEC, CANADA

https://event.asme.org/QNDE

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Welcome Message From The Chairs

Dear Attendees,

As the QNDE 2025 Conference Chair and Co-Chair, it is our privilege and honor to welcome you to the 52nd Annual Review of Progress in Quantitative Non-Destructive Evaluation (QNDE) conference. QNDE is the flagship conference for nondestructive evaluation. The focus of this conference is to understand the physics behind the non-destructive testing technology and replace the empirical non-destructive testing (NDT) practice by science based quantitative non-destructive evaluation (QNDE).

Fifty-two years ago, this conference was started as a workshop to report on findings of Air Force – DARPA activity with support from the National Science Foundation and the Rockwell Science Center. With enormous contributions by Don Thompson, Bruce Thompson, Dale Chimenti, and Leonard Bond, over the years the Annual Review became a large general meeting.

We believe you will enjoy the conference and interacting with the speakers and attendees. We appreciate your feedback and suggestions to help us to continue to improve the conference and prepare for the 2026 event.

We are extremely grateful to the ASME support staff for their tireless efforts to work with us to make it all happen. We have a terrific slate of speakers ready to engage us in a successful three-day conference experience. Besides the plenary talks and regular technical sessions, we look forward to interesting discussions during the student poster competition. We encourage you to be all-in as much as possible the next few days, so you can get the most out of your time with us.

Thank you for your support. We are looking forward to seeing you at the conference in Montreal!

Tribikram Kundu (Bikram)
University of Arizona
Professor, College of Engineering
University of Arizona

Paul Fromme
Professor of Mechanics
Mechanical Engineering
University College London

2025 Conference Chair
Tribikram Kundu (Bikram)
University of Arizona
Professor of Civil & Architectural Engineering & Mechanics Department
Professor of Aerospace & Mechanical Engineering Department
Professor of Materials Science & Engineering Department

2025 Conference Co-Chair
Paul Fromme
Professor of Mechanics
Mechanical Engineering
University College London

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General Information

REGISTRATION HOURS

Wednesday, July 23rd
7:30am – 3:00pm

Thursday, July 24th
7:30am – 3:00pm

Friday, July 25th
7:30am – 10:00am

LOCATION

Inscription Desk (directly across from escalator), Conference level, 1 floor down from the lobby

Visit our conference sponsor TPAC during the conference hours on Congress Level, St. Laurent.

AUDIOVISUAL EQUIPMENT IN SESSION ROOMS

Each session room is equipped with a screen, LCD projector, and laptop. Speakers should arrive to their session room 10 minutes prior to the session start time. Bring a copy of your presentation on a USB/thumb-drive to be loaded onto the show computer.

BADGE REQUIRED FOR ADMISSION

All conference attendees must have an official ASME 2025 QNDE badge at all times in order to gain admission to technical sessions, exhibits, receptions and other conference events. Without a badge, you will not be granted admission to conference activities.

CONFERENCE MEALS

Wednesday and Thursday breakfast will be served in the Salon Ville Marie (Lobby Level) from 7:45 AM to 8:30 AM.

Wednesday and Thursday lunches will be served in the Salon Ville Marie (Lobby Level) from 12:15 PM to 1:45 PM.

Thomas Costabile, P.E., FASME, Executive Director/CEO of ASME will provide welcome remarks at the Wednesday lunch.

The QNDE Awards Luncheon will be held on Thursday. Come celebrate a select group for their contributions and achievements in quantitative nondestructive evaluation. All are welcome to join for a luncheon and recognition of the award winners. Please join us!

Kindly note that Conference closes at 12:00 pm on Friday. Friday breakfast and lunch will be on your own.

Thomas Costabile, P.E., FASME
Executive Director/CEO

Tom Costabile is a visionary business leader recognized for driving transformative mergers, acquisitions, and digital innovation. As ASME's Executive Director/CEO, he has positioned ASME as a global leader while championing engineering's technical and societal contributions. His leadership led to ASME's expanding revenue streams and for-profit ventures.

Costabile has played a key role in advancing industry standards and groundbreaking programs. His career spans private equity, consulting, and executive leadership at SONY Music, Warner Music Group, and CBS Records, where he pioneered disruptive business strategies.

A dedicated philanthropist, Costabile chaired the University of Oregon Foundation's Board, leading a billion-dollar campaign, and supports women in engineering through a scholarship endowment. A licensed mechanical engineer with a Finance MBA and a bachelor's degree in mechanical engineering, he continues to drive innovation and industry progress.

CONFERENCE APP

The conference will utilize the ASME Events mobile app to enhance the experience for attendees and speakers in place of a printed program. Connect with Attendees, View Speaker Profiles, Access Session Information and more! Options may vary by event.

Download the ASME Events App and hold the entire program in the palm of your hand! The ASME Events App allows you to easily look up sessions, search for abstracts or people, message with other attendees, and create your own schedule.

The ASME Events app will allow you to:

• Have the most up-to-date conference schedule in the palm of your hand

• Receive important conference updates and reminders

• Build your session schedule

• View session information including presentation abstracts and papers

• View speaker profiles and see when they are presenting

Keep an eye out for an email from (insert Swapcard info) for more information on how to access and navigate the ASME Events App!

REFRESHMENT BREAKS

Morning and afternoon breaks will be provided in the St. Laurent Foyer, Congres Level. Join your fellow attendees for networking and discussion. The schedule is as follows:

Wednesday, July 23 9:45 AM – 10:15 AM and 3:40 PM – 4:10 PM

Thursday, July 24 9:45 AM – 10:15 AM and 3:40 PM – 4:10 PM

Friday, July 25 9:45 AM – 10:15 AM

OPENING RECEPTION

Wednesday, July 23 6:00 PM — 7:30 PM

Salon Ville Marie (Lobby Level)

All conference registrants are invited to join their colleagues for hors d'oeuvres and refreshments during the Wednesday evening event. Remember to wear your conference badge! Badges are required for all functions.

In a casual atmosphere, greet friends and meet new NDE peers.

POSTER PRESENTATIONS

Join your fellow authors and students presenting their poster submission on Wednesday, July 23, from 5:10 PM to 6 PM.

ASME COMPLIMENTARY MEMBERSHIP

Any attendee that pays a non-member conference registration fee will receive a four-month ASME membership free of charge. ASME will email the instructions for activating your complimentary 4-month membership within approximately four weeks after the conclusion of the conference.

REGISTRANTS WITH DISABILITIES

Whenever possible, we are pleased to plan for registrants with disabilities. Advance notice may be required for certain requests. For on-site assistance, please visit the conference registration area and ask to speak with a conference representative.

WIFI

Network: ConferenceBonaventure
Password: hotel900

Topics & Organizers

ULTRASONIC ARRAYS II
Paul Fromme, *UCL,* **Pierre Belanger,** *ETS Montreal,* **Jiaze He,** *Harbin Institute of Technology,* **Zhang Hai,** *Harbin Institute of Technology*

ADVANCED MODELLING FOR NDE
Paul Fromme, *UCL,* **Tribikram Kundu,** *University of Arizona*

NONLINEAR ULTRASONIC TECHNIQUES FOR NDE
Tribikram Kundu, *University of Arizona,* **Zhongqing Su,** *Hong Kong Polytechnic University*

ULTRASONIC ARRAYS I
Jingjing He, *Harbin Institute of Technology,* **Wieslaw Ostachowicz,** *Polish Academy of Sciences,* **Anowarul Habib,** *Arctic University of Tromso*

STRUCTURAL HEALTH MONITORING I
Jingjing He, *Harbin Institute of Technology,* **Wieslaw Ostachowicz,** *Polish Academy of Sciences,* **Anowarul Habib,** *Arctic University of Tromso*

STRUCTURAL HEALTH MONITORING II
Paul Fromme, *UCL,* **Pierre Belanger,** *ETS Montreal,* **Jiaze He,** *Harbin Institute of Technology,* **Zhang Hai,** *Harbin Institute of Technology*

NDE FOR CIVIL INFRASTRUCTURE
Rachid El Guerjouma, *University of Le Mans,* **Anna Castellano,** *Polytechnic University of Bari,* **Aguinaldo Fraddosio,** *Polytechnic University of Bari*

POSTER & STUDENT POSTER SESSION
Paul Fromme, *UCL,* **Yuris Dzenis,** *University of Nebraska-Lincoln*

EMERGING TECHNIQUES & TECHNOLOGY
Anowarul Habib, *Arctic University of Tromso,* **Amit Shelke,** *IIT Guwahati*

MATERIAL CHARACTERIZATION BY ULTRASONIC WAVES
Tribikram Kundu, *University of Arizona,* **Umar Amjad,** *Qatar University,* **Yanfeng Shen,** *Shanghai Jiao Tong University*

MACHINE LEARNING AND STATISTICAL METHODS IN NDE I
Joel B. Harley, *University of Florida,* **Abhishek Saini,** *Los Alamos National Laboratory*

MACHINE LEARNING AND STATISTICAL METHODS IN NDE II
Joel B. Harley, *University of Florida,* **Abhishek Saini,** *Los Alamos National Laboratory*

GUIDED WAVES I
Paul Fromme, *UCL,* **Margherita Caprioti,** *San Diego State University,* **Michael Iowe,** *Imperial College*

GUIDED WAVES II
Paul Fromme, *UCL,* **Michael Iowe,** *Imperial College,* **Margherita Caprioti,** *San Diego State University*

Thank you to our Track Organizers!
Without their dedication and time commitment, QNDE could not be a successful conference.

Schedule-at-a-Glance

Wednesday, July 23rd

7:30am
Registration

7:45am – 8:30am
Breakfast – Ville Marie, Lobby Level

8:30am – 9:45am
Conference Welcome and Plenary 1 - Plenary Title: Are We Ready for Continuous Structural Health Monitoring (SHM) for Aircraft?
Dr. Fu-Kuo Chang, *Stanford University*

9:45am – 10:15am
Coffee Break, St. Laurent 1

10:15am - 12:15pm
Advanced Modelling for NDE – Outremont 1 - Paul Fromme, *UCL*
Tribikram Kundu, *University of Arizona*

Nonlinear Ultrasonic Techniques for NDE
Montreal 3

Tribikram Kundu, *University of Arizona*
Zhongqing Su, *Hong Kong Polytechnic University*

12:15pm – 1:45pm
Conference Lunch – Ville Marie, Lobby Level

2:00pm - 3:40pm
Structural Health Monitoring I – Montreal 3

Jingjing He, *Harbin Institute of Technology*
Anwarul Habib, *Arctic University of Tromso*
Wieslaw Ostachowicz, *Polish Academy of Sciences*

Material Characterization by Ultrasonic waves – Outremont 1

Tribikram Kundu, *University of Arizona*
Umar Amjad, *Qatar University*
Yanfeng Shen, *Shanghai Jiao Tong University*

3:40pm – 4:10pm
Coffee Break, St. Laurent 1

4:10pm – 5:10pm
Structural Health Monitoring II – Montreal 3

Jingjing He, *Harbin Institute of Technology*
Anwarul Habib, *Arctic University of Tromso*
Wieslaw Ostachowicz, *Polish Academy of Sciences*

Ultrasonic Arrays I – Outremont 1

Pierre Belanger, *ETS Montreal*
Jiaze He, *Harbin Institute of Technology*
Hai Zhang, *Harbin Institute of Technology*

5:10pm – 6:00pm
Poster session – Montreal 3

6:15pm – 8:00pm – QNDE Welcome Reception – Ville Marie, Lobby Level

Thursday, July 24th

7:30am
Registration

7:45am – 8:30am
Breakfast – Ville Marie, Lobby Level

8:45am – 9:45am
Plenary 2

Plenary: A Review of Models Developed at CEA for Simulating Guided Wave NDE/SHM Methods with a Focus on the Modal Approach
Dr. Alain Lhémery, *Université Paris-Saclay, CEA-LIST, France*

9:45am – 10:15am
Coffee Break, St. Laurent 1

10:15am - 12:15pm
Emerging Techniques & Technology – Montreal 3

Anwarul Habib, *Arctic University of Tromso*
Amit Shelke, *IIT Guwahati*

Ultrasonic Arrays II – Outremont 1

Pierre Belanger, *ETS Montreal*
Jiaze He, *Harbin Institute of Technology*
Hai Zhang, *Harbin Institute of Technology*

12:15pm – 1:45pm
Awards Lunch, Ville Marie, Lobby Level

2:00pm - 3:40pm
Machine Learning and Statistical Methods in NDE I – Montreal 3

Joel B. Harley, *University of Florida*
Abhishek Saini, *Los Alamos National Laboratory*

NDE for Civil Infrastructure – Outremont 1

Rachid El Guerjouma, *University of Le Mans*
Anna Castellano, *Polytechnic University of Bari*
Aguinaldo Fraddosio, *Polytechnic University of Bari*

3:40pm – 4:10pm
Coffee Break – St. Laurent 1

4:10pm – 5:30pm
Machine Learning and Statistical Methods in NDE II – Montreal 3

Joel B. Harley, *University of Florida*
Abhishek Saini, *Los Alamos National Laboratory*

Guided Waves I – Outremont 1

Paul Fromme, *UCL*
Michael Lowe, *Imperial College*
Margherita Caprioti, *San Diego State University*

Friday, July 25th

7:30am
Registration

8:45am – 9:45am

Plenary 3

Plenary Title: Ultrasonic Inspection and Characterization in Materials with Complex Properties
Dr. Zheng Fan, *Nanyang Technological University, Singapore*

9:45am – 10:15am
Coffee Break – St. Laurent

10:15am - 12:15pm

Guided Waves II – Outremont 1

Paul Fromme, *UCL*
Michael Lowe, *Imperial College*
Margherita Caprioti, *San Diego State University*

12:15pm
QNDE 2025 Conference Close

Welcome Remarks

Wednesday, July 23, 2025 - 8:30 AM - SALON VILLE MARIE

Conference Chair - Tribikram Kundu (Bikram)

Fu-Kuo Chang

Structures and Composites Laboratory

Dept. of Aeronautics and Astronautics

Stanford University

Plenary Speaker

Wednesday, July 23, 2025 8:30 AM – 9:45 AM

PLENARY SESSION 1

Presentation Title:
Are We Ready for Continuous Structural Health Monitoring (SHM) for Aircraft?

Abstract: Real-time structural health monitoring (SHM) using onboard sensors has the potential to revolutionize aircraft maintenance and operations by enabling continuous damage inspection and state monitoring during flight. This approach could transform how we maintain and operate aircraft, providing enhanced situational awareness, particularly in unexpected conditions where timely and precise control is crucial to preventing failure. However, damage inspection and state monitoring operate on different timescales and require varying levels of sensitivity from sensor data. In this presentation, we will review recent advancements in SHM based on Acousto-Ultrasound techniques, utilizing onboard piezoelectric sensor and actuator networks for aircraft applications. Additionally, we will explore the integration of artificial intelligence (AI) and machine learning (ML) with SHM to enable continuous monitoring. Finally, we will discuss the challenges associated with implementing SHM solutions in real-world aircraft operations.

Biography: Dr. Fu-Kuo Chang is a Professor in the Department of Aeronautics and Astronautics at Stanford University. His primary research interest is in the areas of multi-functional materials and intelligent structures with particular emphases on structural health monitoring, self-sensing diagnostics, intelligent sensor networks, and multifunctional energy storage composites for transportation vehicles as well safety-critical assets. He is a recipient of the SHM Lifetime Achievement Award (2004), SPIE NDE Lifetime Achievement Award (2010), and the PHM lifetime Achievement Award (2018). He is the Editor-in-Chief of Int. J. of Structural Health Monitoring. He is also a Fellow of AIAA and ASME.

PLENARY SESSION 2

Introduction
Paul Fromme, Conference Co-Chair

Presentation Title:
A Review of Models Developed at CEA for Simulating Guided Wave NDE/SHM Methods with a Focus on the Modal Approach

Abstract: Our aim is to review a set of models (and examples of their applications) developed over the last two decades at the French Atomic Energy and Alternative Energies Commission (CEA), most being implemented as tools in the CIVA software platform for simulating NDE/SHM methods based on elastic guided waves (GW).

Two types of modeling approach are being developed at CEA, whether for simulating bulk wave (BW) or GW ultrasonic inspections. One is modal: waves are described assuming they propagate as modes whose contributions add up linearly; CIVA models are transient for BW and harmonic followed by Fourier synthesis to predict signals for GW. The other is numerical, based on time-dependent finite elements; this approach makes it possible to deal with all configurations of ultrasonic inspection without the need for making assumptions about the nature of the propagating waves. In GW simulation, one cannot imagine solutions involving more different computations than those involved in these two approaches. Comparing their predictions is an excellent and safe way of cross- validating them. However, given the known advantages and disadvantages of each of these approaches, a third is also developed, which consists of trying to take advantage of the best of both by hybridizing them.

The presentation will focus on models developed within the modal semi-analytical approach and their hybridization with local numerical computations. Time allotted will allow us to briefly describe how the models work, and to illustrate with a few examples of application what can be studied with them.

Biography: Alain Lhémery (BSc in physics, 1984 - MSc in acoustics, 1986 - PhD in acoustics, 1990 - HDR in physics, 2000) is a Fellow of the CEA (French Atomic and Alternative Energies Commission) and Director of Research at Paris-Saclay Univ. His work [at École Centrale Paris as a PhD student (1986-90) and assistant professor (1991-5), at City University London as Honorary Visiting Fellow (1990-1) and since joining the CEA (1995-...)] focuses on the modeling and simulation of the transduction, propagation and scattering of ultrasonic waves (bulk or guided), for applications in NDE and SHM. Part of this work is implemented in the NDE simulation platform CIVA. To date, he has supervised 22 PhD students to completion. He has taught and continues to teach general and ultrasonic NDE to graduate students at engineering schools (CentraleSupélec, ENSTA) and universities (Univ. Paris-Saclay, Sorbonne Univ., Univ. Évry, Le Mans Univ.). In 2001 he founded the annual series Anglo-French Physical Acoustics Conference with Pr. N. Saffari (UCL). He serves as subject editor for NDT&E International since 2016 (thermal, ultrasonic and emerging techniques).

Alain Lhémery

Université Paris-Saclay, CEA-LIST, France

Plenary Speaker

Thursday,
July 24, 2025
8:45 AM – 9:45 AM

Plenary Speakers

Zheng Fan

Mechanical and Aerospace Engineering

Nanyang Technological University, Singapore

Plenary Speaker

Friday,
July 28, 2025
8:45 AM – 9:45 AM

Room Concerto B,
Third Level

PLENARY SESSION 3

Introduction
Yuris Denis, NDPD Division Chair

Presentation Title:
Ultrasonic Inspection and Characterization in Materials with Complex Properties

Abstract: Ultrasound technology offers immense potential across various disciplines, primarily due to two fundamental aspects: its capacity to convey information about the medium it traverses and its ability to transfer mechanical energy into other forms. Ultrasonic waves, when propagated through a medium, interact with its constituents, modifying the wave in ways that can be measured. These modifications carry detailed information about the medium's properties, including the presence, size, and nature of scatterers. By analyzing the changes in the wave's speed, amplitude, and frequency after it has passed through the medium, it's possible to infer the medium's characteristics. Our focus includes advanced imaging methods that combine numerical models for predicting wave interactions with defects and iterative modeling to reconstruct defect profiles accurately. This innovative approach is key for monitoring defect development over time, aiding in the accurate prediction of structural service life. Meanwhile, recent advancements in manufacturing techniques, such as additive manufacturing, have generated a strong demand for non-destructive characterization of material properties. It is known that material properties are influenced by microstructure factors, including morphology, texture, grain size, etc. Since these factors also affect the propagation of ultrasonic waves, it is possible to characterize the microstructure using ultrasound. I'll share ongoing research on correlating microstructural features in polycrystals with ultrasonic properties, highlighting their potential for material characterization. Additionally, I'll explore the application of ultrasonic characterization techniques to evaluate the state of health (SOH) and state of charge (SOC) of electric vehicle (EV) battery cells, and perform temperature mapping within battery components. By integrating ultrasonic insights into the EV battery domain, we aim to enhance our understanding of their performance and longevity, offering valuable insights for the growing electric vehicle industry.

Biography: Dr. Zheng Fan is an associate professor in the School of Mechanical and Aerospace Engineering at Nanyang Technological University, Singapore. He earned his Ph.D. degree in Mechanical Engineering from Imperial College London in 2010, and his Bachelor's and Master's degrees in Acoustics from Nanjing University in 2004 and 2006, respectively. Currently, he leads a research team dedicated to developing novel techniques for the non-destructive evaluation, structural health monitoring, and sound manipulation. His work integrates advanced physics and modeling techniques with the development of technologies that can be rapidly deployed in practical settings. Dr. Fan maintains strong links with the global industry, collaborating with major companies such as Rolls-Royce, Shell, Lloyd's Register, EDF, and Sembcorp, etc. His research spans from thorough investigations of fundamental theories to the application of science in addressing real-world challenges. The results of his work have been published in over 90 papers in top tier journals. He holds two international patents and has successfully licensed these technologies to industry partners. In 2018, Dr. Fan was awarded the Achenbach Medal for his outstanding contributions to structural health monitoring. Since 2020, he has been ranked among the world's top 2% of scientists by Stanford University. Dr. Fan also serves as an Associate Editor for "Structural Health Monitoring – An International Journal" and "Ultrasonics," two leading journals in his field.

Awards

ASME Nondestructive Evaluation, Diagnosis, & Prognosis Division (NDPD) presents several prestigious awards at the QNDE conference.

NDPD's highest honor is the Founder's Award, presented to an individual for exemplary achievement in NDE and engineering. This year the award goes to Professor Srinivasan Gopalakrishnan for his significant and original contributions in both basic and applied research in nondestructive testing and evaluation and structural health monitoring.

The editorial board of the ASME JNDE (Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems) has awarded the following papers from JNDE's publications.

2024 Best Paper Award for ASME JNDE

Automated Wall Thickness Evaluation for Turbine Blades Using Robot-Guided Ultrasonic Array Imaging

Authored by Christian Hassenstein, Thomas Heckel, Inglmar Tomasson, Daniel Vöhringer, Torsten Berendt, Jonas Wassermann and Jens Prager

Published in In the May 2024 Issue of the ASME JNDE

2024 Outstanding Paper Award

Peri-Ultrasound Modeling to Investigate the Performance of Different Nonlinear Ultrasonic Techniques for Damage Monitoring in Plate Structures

Authored by Guangdong Zhang, Zionbing Li and Tribikram Kundu

Published in In the August 2024 Issue of the ASME JNDE

Highest Citation Paper Award Two Years After Publication

A Bayesian Optimized Discriminant Analysis Model for Condition Monitoring of Face Milling Cutter Using Vibration Datasets

Authored by Naman S. Bajaj, Abhishek D. Patange, R. Jegadeeshwaran, Kaushal A. Kulkarni, R. S. Ghatpande and Atharva M. Kapadnis

Published in the In the May 2022 Issue of the ASME JNDE

Highest Citation Paper Award on its Fifth Anniversary

Modeling Ultrasonic Elastic Waves in Fiber-Metal Laminate Structures in Presence of Sources and Defects

Authored by Steffan Tai, Fumika Kotobuki and Lifu Wang

Published in In the November 2020 Issue of the ASME JNDE

High Citation Paper Award – For Being Among the Top Five Cited Papers of the Journal

Nonlinear Acoustic Technique for Monitoring Porosity in Additively Manufactured Parts

Authored by SeHyuk Park, Hamad Alnuaimi, Anna Hayes, Madison Sitkiewicz, Umar Amjad, Tribikram Kundu and Krishna Muralidharan

Published in In the May 2022 Issue of the ASME JNDE

Toward a Big Data-Based Approach: A Review on Degradation Models for Prognosis of Critical Infrastructure

Authored by Guru Prakash, Xian-Xun Yuan, Budhaditya Hazra and Daijiro Mizutani

Published in In the May 2021 Issue of the ASME JNDE

ABOUT THE ASME NONDESTRUCTIVE EVALUATION, DIAGNOSIS, & PROGNOSIS DIVISION

The NDPD division aims to be the essential resource for mechanical engineers and other technical professionals throughout the world for disseminating technical knowledge associated with diagnosis and prognosis of mechanical systems as well as functional system adaptation to partially damaged state of the mechanical system. The division will interface with other divisions and groups within ASME and other professional engineering societies to enhance public safety and the quality of life. The NDE division's mission is to serve global engineering communities by advancing, disseminating and applying NDE/NDT knowledge for overall mechanical system safety, reliability improvement; and communicating the excitement of emerging technologies in the NDE discipline.

Student Poster Competition

Wednesday, July 23 - 5:10 PM –6:00 PM

To be eligible to participate in the student poster competition, the author(s) must have completed the research presented on the poster while seeking a degree at a university as an undergraduate (Bachelor's) or as a graduate student (Master's or PhD).

For the Student Poster Session Competition, students must present their own posters, and an evaluation committee will select the First-, Second-, and Third-Best Poster Paper Awards. In addition to Award Certificates for the Award Winners, a monetary reward will be awarded to the 1st and 2nd place.

The poster evaluation will be based upon its (1) Poster Content (clarity and quality of content, originality, and significance of topic), (2) Poster Organization (layout, font size, etc.), and (3) Presentation Delivery (confidence, knowledge of topic, answers to questions).

Presenting a poster is an excellent opportunity to display research outside of a paper while still contributing to the continuing advancements in the NDE community.

Student Poster Winners will be announced at the QNDE Awards Luncheon on Thursday, July 24, at 12:15 PM to 1:45 PM in the Salon Ville Marie.

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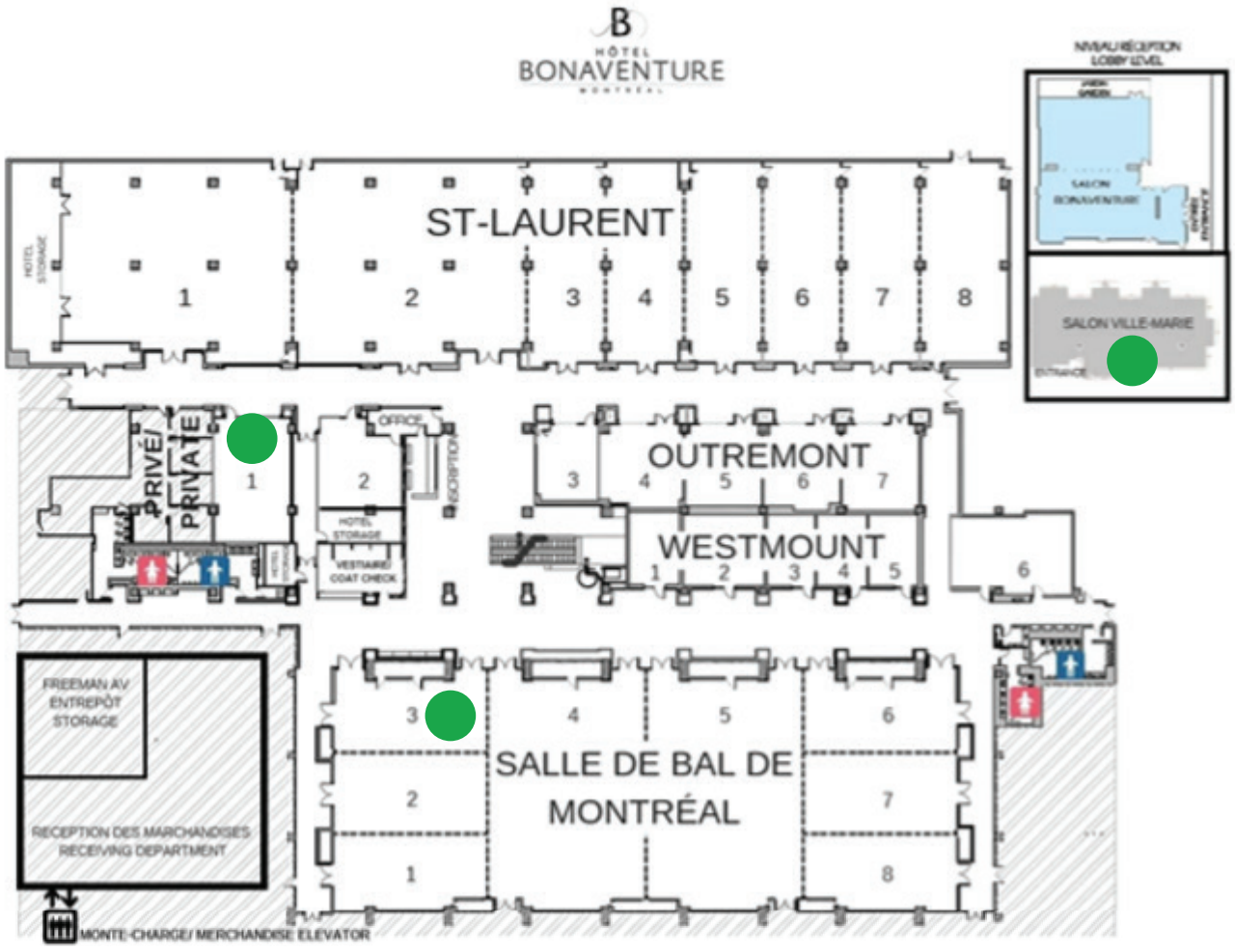
Lesage	Jonathan	169461	A General Information Theoretic Framework for Multi-Path Phase Coherence Imaging	Ultrasonic Arrays I
Lhémery	Alain	170356	A Simple Model for Guided Wave Radiation in Rolled Plates Subjected to Residual Stress Validated by Finite Element Computations	Guided Waves I
Lombard	Eloi	170121	Deep Learning Approaches for Enhanced Defect Characterization in Phased Array Ultrasonic Testing	Machine Learning and Statistical Methods in NDE I
Loveday	Philip	170231	Initial Development of a Low-Cost Guided Wave Ultrasound-Based Monitoring System	Guided Waves I
Madine	Katie	170132	Mode Conversion and Scattering of Coupled Flexural and Acoustic Waves on Fluid Loaded Elastic Plates	Guided Waves II
Maxwell	Cole	170270	Multi-Sensor, Distance-Informed Deep Learning for Ultrasonic Damage Detection and Characterization	Machine Learning and Statistical Methods in NDE I
Mohseni	Ehsan	169315	Multi Model Machine Learning Approach for Automated Data Analysis of Carbon Fiber Reinforced Polymer Composites	Machine Learning and Statistical Methods in NDE I
Qin	Qihang	164217	Passive Identification of Structural Complex Wave-Number Space via Ambient Noise: Application to Airfoil Icing Detection	Structural Health Monitoring I
Qu	Jianmin	170240	Second Harmonic Surface Waves in a Hyperelastic Half Space With Quadratic Nonlinearity	Nonlinear Ultrasonic Techniques for NDE
Queiroz Machado	Lucas	170848	Ultrasonic Characterisation of Thick Section Welds Assisted by Ai and Ray-Based Methods.	Material Characterization by Ultrasonic waves
Rollet	Paul	169968	High-Temperature Thickness Measurement Using an Electromagnetic Acoustic Transducer (Emat)	Emerging Techniques & Technology
Shah	Neel	170266	Curved Surface Defect Detection via Full-Field Ultrasonic Inspection Using Deformable Convolutions	Guided Waves II
Stoev	Krassimir	170284	Comparative Evaluation of Conventional and Advanced Nde Techniques for Rebar Corrosion Monitoring in Concrete Structures	NDE for Civil Infrastructure
Tian	Zhigang	170925	A Physics-Informed Neural Networks Based Approach for Bearing Fault Classification	Machine Learning and Statistical Methods in NDE II
Vlnogradov	Sergey	170129	Corrosion Mapping in Hidden Areas Using an Array of Guided Wave Magnetostrictive Transducers	Guided Waves II
Walter	Julien	169243	Automated Correction of Ultrasonic Inspection Paths for Deformed Geometries	Ultrasonic Arrays II
Wang	Zhenshan	170199	The Use of the Born Approximation for Microstructural Characterization Using Ultrasonic Phased Arrays: Applications and Limitations	Advanced Modelling for NDE
Yang	Liu	169780	Defect Detection in Metal Additive Manufacturing Using Laser Ultrasonic Data and Physics-Informed Neural Networks	Machine Learning and Statistical Methods in NDE I
Yang	Ziqian	170066	Deep Learning-Powered Baseline-Free Ultrasonic Method for Detecting Corrosion-Induced Cracks in Concrete	NDE for Civil Infrastructure
Yang	Kang	170141	Dataset on Guided Waves From Long-Term Structural Health Monitoring Under Dynamic Conditions	Structural Health Monitoring I
Yuan	Arnold	170232	Aperiodic Inspection Policy for Inventory-Level Bridge Management	NDE for Civil Infrastructure
Zhu	Pengfei	170866	Frequency Multiplexed Photothermal Correlation Tomography: Toward Three-Dimensional Thermal Tomography in Industrial Inspection	Poster & Student Poster Session

Floor Plan

The Conference area is located on the lower level. One level down from the lobby. Salon Bonaventure and Salon Ville-Marie are located on the lobby level.

QNDE Plenary and meals will take place in Salon Ville-Marie.

QNDE technical sessions will take place in Outremont 1 or Montreal 3 starting at 10:15am each day.



QNDE Conference Rooms

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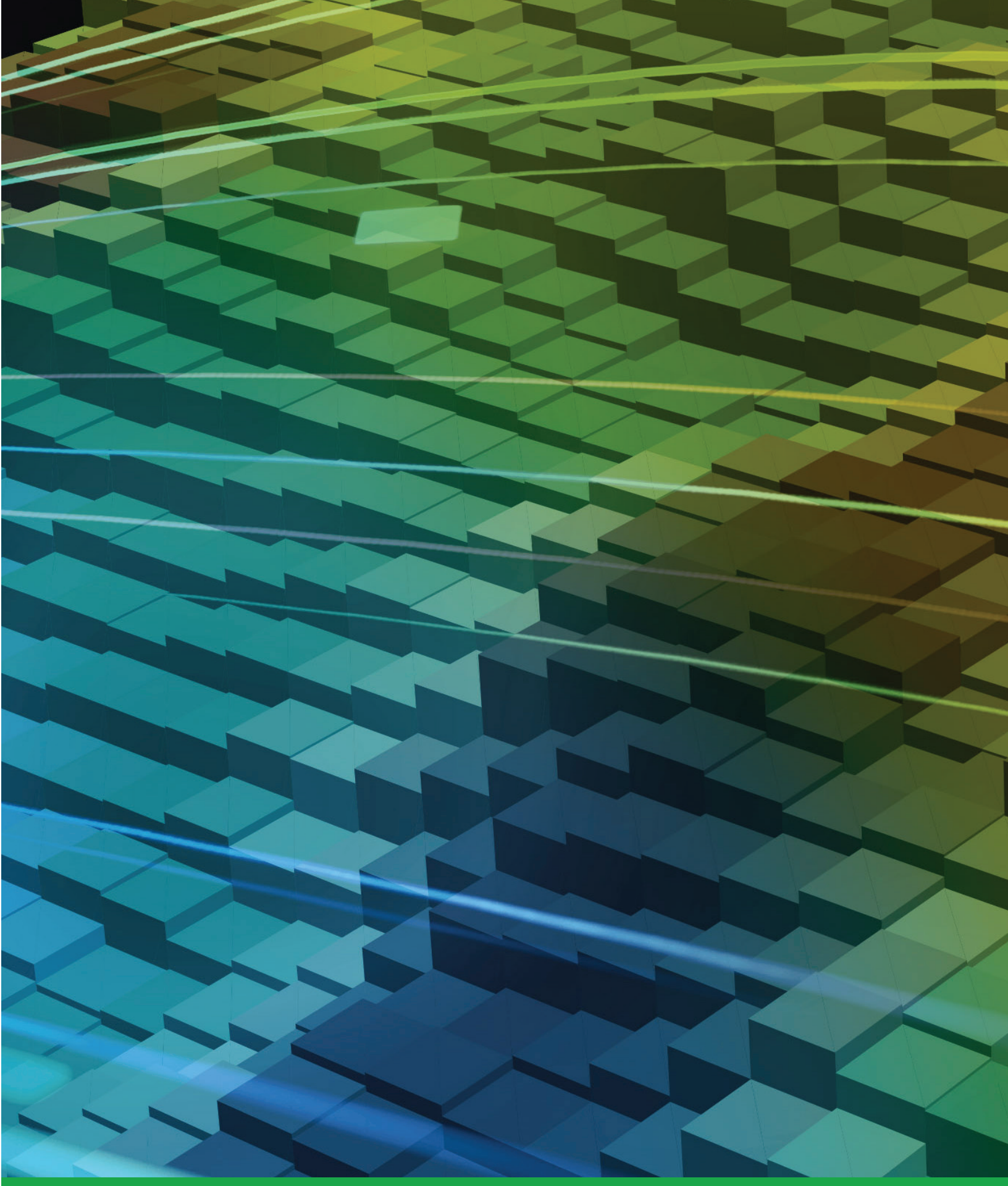

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