



FSSIC OSHAWA / TORONTO
2025

FSSIC 2025

THE 7TH SYMPOSIUM ON
FLUID-STRUCTURE-SOUND
INTERACTIONS AND
CONTROL

July 27 to 31, 2025

Program Guide

General Information

FSSIC 2025

July 27-31, 2025

Ontario Tech University,
Oshawa, Ontario,
Canada



The Local Organising Committee of the 7th Symposium on Fluid-Structure-Sound Interactions and Control (FSSIC 2025) is pleased to welcome you to Ontario Tech University, the city of Oshawa, and the Greater Toronto area. The symposium will be held at the North Oshawa location of the university (2000 Simcoe Street North). The Program Guide contains information about symposium events and activities, the detailed program schedule, a campus map, and a floor plan of the Science Building where the sessions will be held. We hope you enjoy the symposium and your time in southern Ontario.

Conference Venue

Ontario Tech University
North Oshawa Location
2000 Simcoe Street North
Oshawa, Ontario, L1G 0C5
Canada

Registration

The Registration desk is in the Atrium of the Science Building. Registration will be open on Sunday, July 27, 2025, from 3:00-6:00 p.m. and on Monday, July 28, 2025, from 7:30-9:00 a.m.

Book of Abstracts

Each registrant will receive a flash memory drive (with USB-A and USB-C connectors) containing the Book of Abstracts.

Name Badges

Please always wear your name badges, to allow entry to the keynote/plenary lectures, technical sessions, coffee breaks, reception, and other events.

Wi-Fi Access

Free Wi-Fi is available to symposium participants.

Username: FSSIC

Password: FSSIC2025!

Program Information

Welcome and Opening Session

The Welcome and Opening Session on the first day of the symposium, and the Closing Session on the last day of the symposium, will be held in the Dr. Peter Zakarow Auditorium (Room 1350) on the first floor of the Science Building.

Keynote and Plenary Lectures

The Keynote and Plenary Lectures will be held in the Dr. Peter Zakarow Auditorium (Room 1350) on the first floor of the Science Building.

Technical Sessions

There are nine sets of Technical Sessions scheduled during the symposium, each with two parallel sessions (A and B). The sessions will be held in two classrooms (Rooms 1120 and 1140) on the first floor of the Science Building. These classrooms are on the same floor as the Auditorium.

Welcome Reception and Tour of ACE

The Welcome Reception will be held on Monday, July 28, 2025, starting at 6:00 p.m. at the Automotive Centre of Excellence (ACE). The reception and tour are open to all participants. The ACE building is located on the Ontario Tech University campus a short walk from the Science Building. A technical tour of the ACE facilities is included as part of the reception. Tickets to the reception are included with your registration package.

For more information on ACE:

<https://ace.ontariotechu.ca/index.php>



Coffee Breaks

Coffee breaks take place in the Atrium just outside Rooms 1120 and 1140 on the first floor of the Science Building.

Lunch

Lunch is provided for all participants on July 28, 29, 30, and 31, 2025. Lunch takes place in the South Village Dining Hall, which is a short walk from the Science Building. Lunch tickets are included with your registration package.

Symposium Photo

The traditional symposium group photo will be taken on Tuesday, July 29, 2025, following the morning's plenary lectures. Participants will assemble in the Polonsky Commons outside the Science Building.

Niagara Falls Excursion and Symposium Dinner

For participants who pre-purchased tickets for the excursion and dinner, buses will leave for Niagara Falls on Wednesday, July 30, 2025, after lunch. Tickets for the bus and dinner, if pre-purchased, are included with your registration package. For more information on Niagara Falls:

<https://www.niagarafallstourism.com>

A complimentary entry and guided tour of the historic Niagara Parks Power Station is included as part of the excursion. Comfortable shoes are recommended for the tour, which includes an almost 1.5 km round-trip walk in the tunnel (approx. 10-minute walk each way) once used to convey water from the power station back to the Niagara River. For more information on the Niagara Parks Power Station: <https://www.niagaraparks.com/visit/attractions/niagara-parks-power-station>



The Symposium Dinner will be at the STK Steakhouse Fallsview restaurant. The dinner will be preceded by a short reception. The restaurant is in the Embassy Suites Hotel (6700 Fallsview Blvd., Niagara Falls, ON, L2G 3W6), which is close to the upper terminal of the Falls Incline Railway. For more information on the restaurant: <https://stksteakhouse.com/en-us/location/fallsview/>

Sponsors



Faculty of Engineering and Applied Science, Ontario Tech University
For more information: <https://engineering.ontariotechu.ca/>



Office of the Vice-President, Research and Innovation, Ontario Tech University
For more information: <https://research.ontariotechu.ca/>



LaVision

For more information: <https://www.lavision.de/en/index.php>

Presentations

Instructions for
Presentations in
Technical Sessions

Each paper will be allotted a total of 20 minutes, with 15 minutes for oral presentation and 5 minutes for questions and changeover of the speaker. These time limits will be enforced to ensure the sessions and presentations remain on schedule.

Each room will be equipped with a Windows laptop computer equipped with PowerPoint and Acrobat Reader. Speakers are encouraged to bring their presentation on a USB flash drive and use the computer provided. However, speakers also have the option to use their own computers, and HDMI and USB-C cables are available to connect to the classroom projection system.

Speakers should arrive at least 10 minutes before the session is scheduled to start to meet with the Session Chair, provide the Session Aide with the electronic file of their presentation, and/or test the connection of their personal computer to the projection system.

Session Chairs

Responsibilities of
Session Chairs

Manage the Session

Session Chairs are the managers of their sessions; this is one of their most important duties. If a speaker starts to run over time, the Session Chair should signal a 2-minute warning, and if the speaker does not respond, it is acceptable to politely interrupt the speaker and thank the speaker for the presentation. At the beginning of the session, Session Chairs should remind the audience to turn off cell phones as a courtesy to speakers and to leave the room if these devices must be used. If a presenter is absent or a paper has been cancelled, it is recommended to pause until the next scheduled paper is scheduled, so as to allow participants to easily move between parallel sessions to see specific papers of interest.

Introduce the Speakers

Chairs should properly introduce each speaker, mentioning the name of the presenter, the presenter's affiliation or organization, and the title of the presentation.

Thank the Speakers

Once the presentation is completed, the Session Chair should thank the speaker for presenting the paper.

Manage the Question-and-Answer Period

The Session Chairs should manage the questions, ensuring that as many audience members as possible have a chance to ask questions within the allotted time. Session Chairs should also have one or two questions of their own if necessary. It is important to end the question-and-answer period on time, to allow time for the next presenter to set and be ready to begin on time.

Map

Ontario Tech University
North Oshawa Campus

This map of the North Oshawa location of Ontario Tech University shows the locations of all symposium activities and events, except for the excursion to Niagara Falls and the Symposium Dinner.

South Village

Dining Hall (SVDH)

Lunches, Bus Departure
and Arrival Location

South Village

Residence (SVR)

On-Campus
Accommodations

Automotive Centre

of Excellence (ACE)

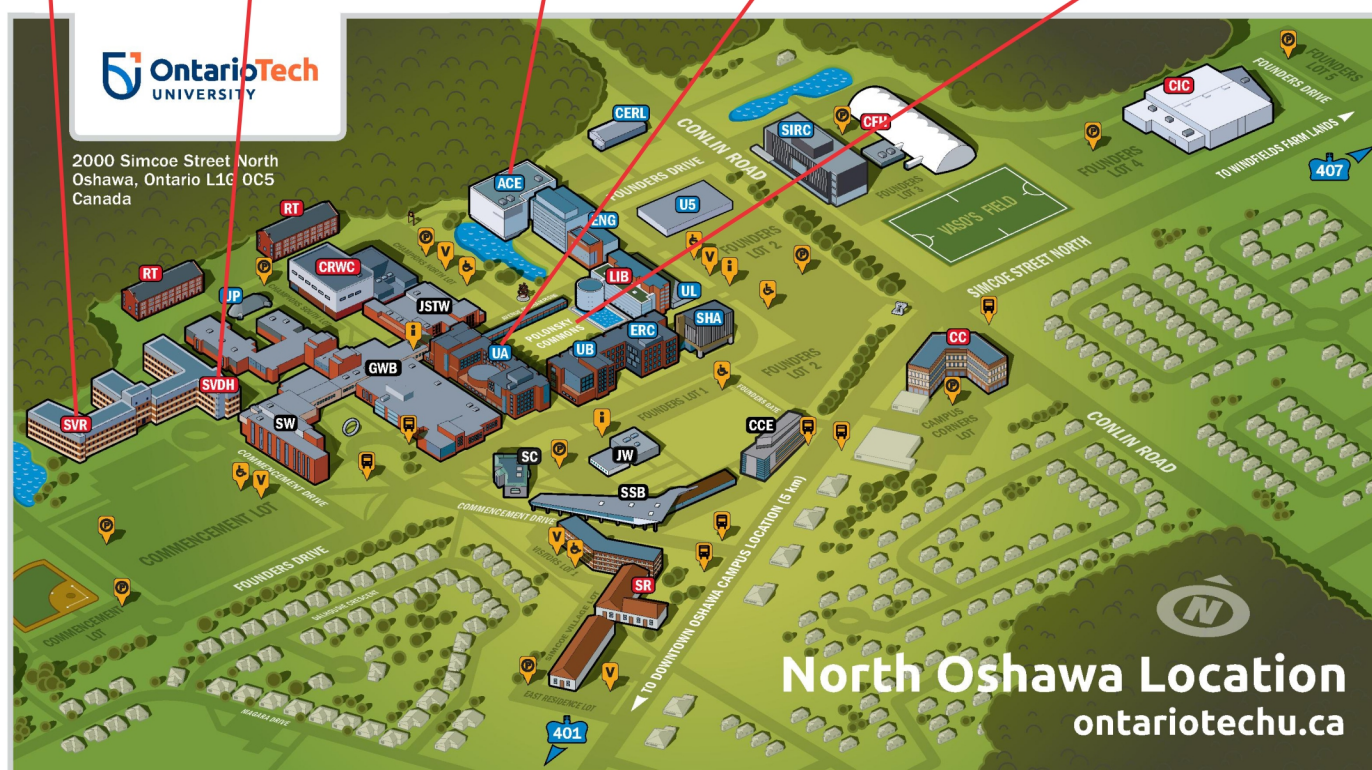
Welcome Reception
and Technical Tour

Science Building (UA)

Registration, Welcome and
Opening Session, Keynote
and Plenary Lectures,
Technical Sessions, Coffee
Breaks, Closing Session

Polonsky Common

Symposium Group Photo



- | | | | |
|-----------------------------------|--|---|---------------------------------------|
| Ontario Tech University buildings | ACE ACE | ERC Energy Systems and Nuclear Science Research Centre | SR Simcoe Village Residence |
| Durham College buildings | CC Campus Corners | GWB Gordon Willey Building | SSB Student Services Building |
| Shared buildings | CCE Centre for Collaborative Education | JW J Wing | SVDH South Village Dining Hall |
| Parking | CERL Clean Energy Research Lab | JSTW Justice Wing | SVR South Village Residence |
| Accessible parking | CFH Campus Fieldhouse | LIB Library | SW South Wing |
| Visitors' parking | CIC Campus Ice Centre | RT Residence Townhouses | U5 U5 Offices |
| Information | CRWC Campus Recreation and Wellness Centre | SC Student Centre | UA Science Building |
| Bus stops | ENG Ontario Power Generation Engineering Building | SHA Shavenjigewining Hall | UB Business and IT Building |
| | | SIRC Software and Informatics Research Centre | UL UL Offices |
| | | | UP Pavilion |

Science Building

Floor Plan, First Floor

The symposium's main activities will be held on the first floor of the Science Building, including Registration, Welcome and Opening Session, Keynote and Plenary Lectures, Technical Sessions, Coffee Breaks, and the Closing Session.

Dr. Peter Zakarow Auditorium (Room 1350)

Welcome and Opening Session

Keynote and Plenary Lectures

Closing Session

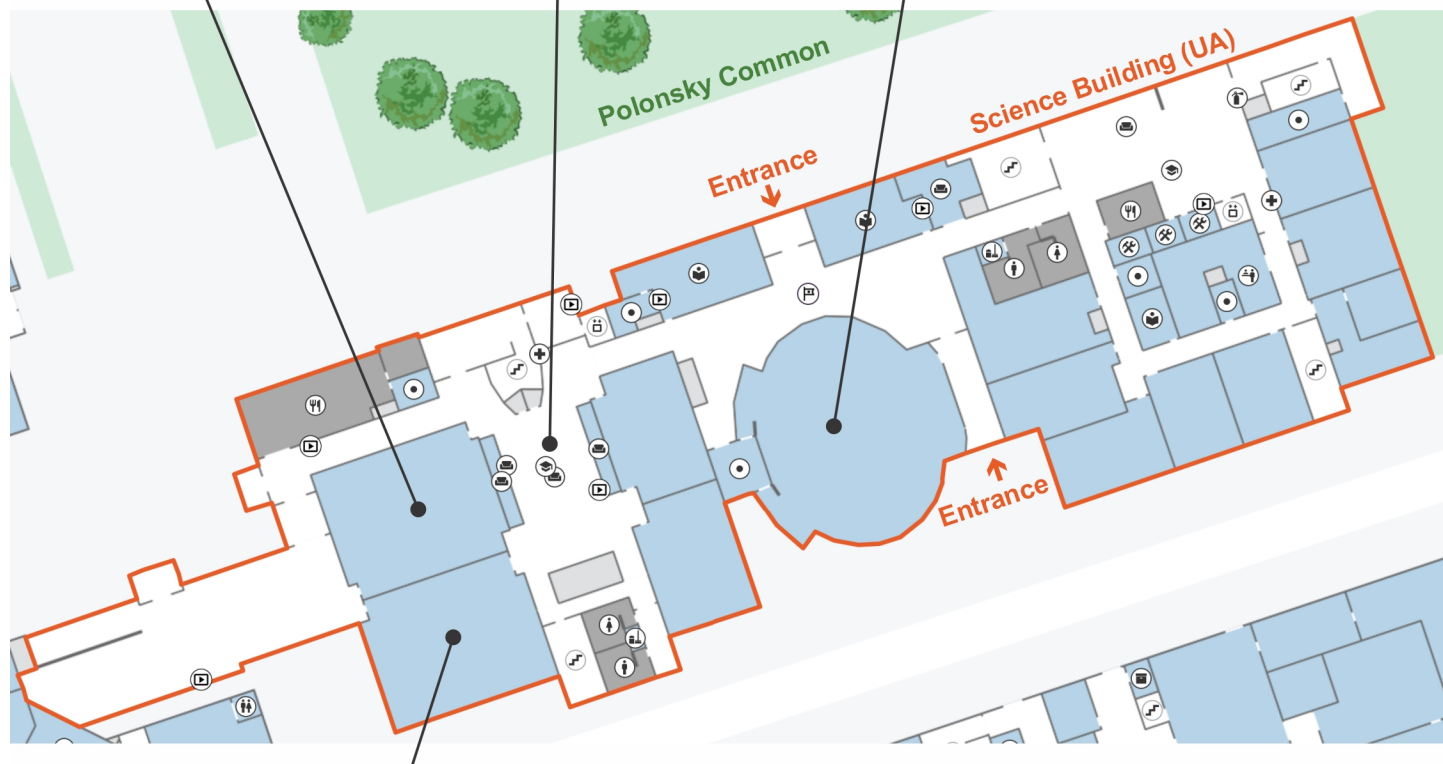
Classroom (Room 1120)

Technical Sessions

Atrium

Registration

Coffee Breaks



Classroom (Room 1140)

Technical Sessions

Program

FSSIC 2025 Program

Updated: July 23, 2025

Sunday, July 27, 2025

3:00 p.m. to 6:00 p.m.	Registration (Atrium, Science Building)
TBD	FSSIC Proceedings Editors Meeting (invitation only)

Monday, July 28, 2025

7:30 a.m. – 9:00 a.m.	Registration (Atrium, Science Building)	
9:00 a.m. – 9:15 a.m.	Welcome and Opening Session (Dr. Peter Zakarow Auditorium, Room 1350, Science Building)	
9:15 a.m. – 10:00 a.m.	Keynote Lecture (Dr. Peter Zakarow Auditorium, Room 1350, Science Building) <i>Session Chair: Atef Mohany</i> Prof. Marianna Braza Electroactive morphing for disruptive wing design enabling drastic aerodynamic performance increase (K)	
10:00 a.m. – 10:15 a.m.	Coffee Break (Atrium, Science Building)	
10:15 a.m. – 11:55 a.m.	Technical Sessions 1 (Science Building)	
	Session 1A (Room 1120) Acoustics 1 <i>Session Chair: Philippe Lavoie</i>	Session 1B (Room 1140) Wakes 1 <i>Session Chair: Martin Agelin-Chaab</i>
10:15 a.m.	Leading edge noise from a finite wall-mounted airfoil immersed in a turbulent boundary layer (012) <i>Con Doolan, Roman Kisler, Charitha de Silva, Danielle Moreau</i>	Three-dimensional wake of a surface-mounted finite-height square prism of small aspect ratio (023) <i>Barbara L. da Silva</i>
10:35 a.m.	Measurements of the velocity distribution and noise behind a counter-rotating wind turbine model (043) <i>Yoshifumi Jodai, Yusei Suzuki</i>	Interaction between two spheres falling side by side across a liquid-liquid interface (070) <i>Eunseong Moon, Dohyun Kim, Daegyoum Kim</i>
10:55 a.m.	Aeroacoustic characteristics of the main components of a generic nose landing gear (046) <i>Zhe Lu, Alis Ekmekci</i>	Flow around surface-mounted rectangular flat plates of low aspect ratio at different angles of attack (084) <i>K. Baron, E. Montes Gomez, D. Sumner</i>
11:15 a.m.	Which swimmer is noisier in water? Eel or jackfish (102) <i>Amirhossein Fardi, Muhammad Saif Ullah Khalid</i>	Flexible membranes in bluff body flows: a review (089) <i>Roham Lavimi, Clément Rouaix, Horia Hangan</i>

11:35 a.m.		Linear and nonlinear processes in stratified turbulence with mean shear (107) <i>Hideshi Hanazaki, Ayush Parajuli, Shinya Okino</i>
11:55 a.m. – 1:30 p.m.	Lunch (South Village Dining Hall)	
1:30 p.m. – 3:10 p.m.	Technical Sessions 2 (Science Building)	
	Session 2A (Room 1120) Fluid-Structure Interaction 1 <i>Session Chair: Dominique Poirel</i>	Session 2B (Room 1140) Multiphase Flow <i>Session Chair: Sergio Viçosa Möller</i>
1:30 p.m.	A numerical study of flexible flapping wings in highly compressible flows (003) <i>Nathan Widdup, Li Wang, John Young, Fang-bao Tian</i>	Large eddy simulation of turbulent flow in a simplified helical coil steam generator (032) <i>Gihwan Lee, Haecheon Choi</i>
1:50 p.m.	Linear stability analysis of two parallel inverted flags in axial flow (011) <i>Shaoguang Wang, Mathias Legrand, Michael P. Paidoussis</i>	Predicting flow-induced forces in two-phase intermittent cross-flow with morphology-adaptive CFD (036) <i>Daniele Vivaldi, Marco Colombo</i>
2:10 p.m.	Designing fluid-structure interactions with kirigami: making parachutes out of thin sheets (019) <i>Danick Lamoureux, Sophie Ramananarivo, Frédérick P. Gosselin, David Mélançon</i>	Bubble rise dynamics in a quiescent liquid and impact on a cylinder (047) <i>Fanny Beltran, William Benguigui, Nicolas Méricoux, Thomas Bonometti, Catherine Colin</i>
2:30 p.m.	Characterizing turbulence fluctuations in Stuart vortices through differential elimination algorithms (062) <i>Valencia Negrete, Carla, Romero de Terreros Aramburu, Manuel</i>	Numerical investigation of snow accumulation on inclined surfaces (116) <i>Kiran P. Keshavan, Martin Agelin-Chaab, Horia Hangan</i>
2:50 p.m.	Flow-driven soft robots: computational and experimental investigations (120) <i>Hossein Hashemidehaghi, Mojtaba Kheiri, Amir Hooshir, Hang Xu</i>	Two-phase cross-flow in tube bundles: transition to a high flow rate regime (007) <i>Lucas Prévost, Philippe Piteau</i>
3:10 p.m. – 3:30 p.m.	Coffee Break (Atrium, Science Building)	
3:30 p.m. – 4:10 p.m.	Plenary Lecture (Dr. Peter Zakarow Auditorium, Room 1350, Science Building) <i>Session Chair: Atef Mohany</i> Prof. Marwan Hassan Cross-flow excitation in tube arrays: current understanding and future challenges (P)	
4:10 p.m. – 5:50 p.m.	Technical Sessions 3 (Science Building)	
	Session 3A (Room 1120) Experimental Techniques <i>Session Chair: Daegyoun Kim</i>	Session 3B (Room 1140) Jets 1 <i>Session Chair: Francisco Huera-Huarte</i>
4:10 p.m.	Generation of representative on-road yaw distributions in a model-scale automotive wind tunnel (066) <i>C.S. Kandias, G. Cacho, D. Van Every, P. Waudby-Smith, R. Hanson</i>	Estimation of the turbulent velocity field in a controlled wall jet (055) <i>Bonnie Sim, Joseph W. Hall</i>
4:30 p.m.	Impact of porous material morphology on the sensitivity of triboelectric sound sensors (087) <i>Mohammad M. Rastegardoost, Siros Khorshidi, Zia Saadatnia, Hani E. Naguib</i>	Diffusion mixing of jets with different densities using secondary film flow (017) <i>Norimasa Miyagi, Motoaki Kimura</i>

4:50 p.m.	Design and analysis of full-scale truncated wind tunnel slat model for aeroacoustic testing (118) <i>Abhijit Roy, Daniel Foster, Alis Ekmekci</i>	Impact of nozzle geometry on turbulent free jet dynamics: an experimental study (075) <i>Alec Sangster, Amirhossein Hamidi, Ronald Hanson</i>
5:10 p.m.	Unsteady wall shear-stress measurements on an accelerating cylinder (018) <i>Jesse A. MacArthur, Joseph W. Hall</i>	
5:30 p.m.	Surface airflow sensor based on flexible magnetic cilia (051) <i>Zhijian Wen, Yang Liu, Jiamin Chen, Wenchao Yang</i>	
5:50 p.m. – 6:00 p.m.	Break	
6:00 p.m. – 8:30 p.m.	Welcome Reception and Tour of Automotive Centre of Excellence (ACE)	

Tuesday, July 29, 2025

8:30 a.m. – 10:10 a.m.	Technical Sessions 4 (Science Building)	
	Session 4A (Room 1120) Acoustics 2 <i>Session Chair: Joana Rocha</i>	Session 4B (Room 1140) Energy Harvesting <i>Session Chair: Marwan Hassan</i>
8:30 a.m.	Noise source localisation from the interaction of anisotropic turbulence with a flat plate serrated leading-edge (021) <i>Sophia Nicole Rueda Pablo, Con Doolan, Charitha de Silva, Danielle Moreau</i>	Energy harvesting using a one-degree-of-freedom pendulum with and without wake interference (009) <i>Francisco Huera-Huarte</i>
8:50 a.m.	Control of aerodynamic noise from an axial fan in a narrow duct using a resonator-type silencer (061) <i>Hiroshi Yokoyama, Yuto Saito, Yoshiki Kawanishi, Takashi Kuraishi</i>	Energy harvesting potential in pendular tandem cylinder systems (030) <i>Patrick Batista Habowski, Adriane Prisco Petry, Sergio Viçosa Möller, Atef Mohany</i>
9:10 a.m.	Dynamics of the separating and reattaching flow in the flap cove of the 30P30N high-lift airfoil (054) <i>Marinus K. Okoronkwo, Hadar Ben-Gida, Oksana Stalnov, Stephane Moreau, Philippe Lavoie</i>	Vortical structures around a vertical-axis wind turbine (041) <i>Sangwoo Ahnn, Haecheon Choi</i>
9:30 a.m.	The effects of the sweep angle on slat noise characteristics of the 30P30N high-lift model and an investigation of the noise generated by slat accessories (077) <i>Raymond Alsaif, Alis Ekmekci</i>	Efficient ocean wave energy harvesters; an adaptable system (006) <i>Aref Afsharfard, Kyung Chun Kim</i>
9:50 a.m.	Investigation on self-noise of porous samples through acoustic measurements in wind tunnel (033) <i>Nick Connington-Bourbonniere, Joana Rocha, Peter Waudby-Smith</i>	Geometry-resolved aero-servo-elastic simulation of an airborne wind energy system (104) <i>Niels Pynaert, Maxim Notable, Thomas Haas, Jolan Wauters, Guillaume Crevecoeur, Joris Degroote</i>

10:10 a.m. – 10:55 a.m.	Keynote Lecture (Dr. Peter Zakarow Auditorium, Room 1350, Science Building) <i>Session Chair: David Sumner</i> Prof. Yu Zhou Artificial intelligence, flow control and engineering applications: opportunities and challenges (K)	
10:55 a.m. – 11:20 a.m.	Coffee Break (Atrium, Science Building)	
11:20 a.m. – 12:00 p.m.	Plenary Lecture (Dr. Peter Zakarow Auditorium, Room 1350, Science Building) <i>Session Chair: David Sumner</i> Prof. Njuki Mureithi Selected problems in flow-induced vibration of nuclear plant components (P)	
12:00 p.m. – 12:10 p.m.	Symposium Photo (Polonsky Commons)	
12:10 p.m. – 1:30 p.m.	Lunch (South Village Dining Hall)	
1:30 p.m. – 3:10 p.m.	Technical Sessions 5 (Science Building)	
	Session 5A (Room 1120) Fluid-Structure Interaction 2 <i>Session Chair: Frédérick Gosselin</i>	Session 5B (Room 1140) Wakes 2 <i>Session Chair: Amro Elhelaly</i>
1:30 p.m.	FSI study of flexible flippers for uncrewed vessels (026) <i>Xi Lin, Hemant Singh, John Young, Fang-Bao Tian</i>	Assessment of universal wake behaviour for two-dimensional bluff bodies (010) <i>David Sumner</i>
1:50 p.m.	Effect of flow pulsation on the stability of Tollmien-Schlichting and travelling-wave flutter in a compliant-walled channel (045) <i>Mohammad Ramezani, Julien Cisonni, Kostas Tsigklifis, Anthony Lucey</i>	Impact of an elliptical rear design of the Ahmed body on drag and soiling (097) <i>Naseeb Ahmed Siddiqui, Martin Agelin-Chaab</i>
2:10 p.m.	Experimental insights into transverse fluidelastic instability of triangular tube arrays under single-phase and two-phase cross-flows (059) <i>Domenico Panunzio, Philippe Piteau, José Antunes</i>	Instantaneous reattachment and stagnation points for surface-mounted low-aspect-ratio square prisms (085) <i>L. Fradette, B. Petreny, D. Sumner</i>
2:30 p.m.	Fluid torque acting on a tumbling plate (074) <i>Katsuya Hirata, Hiroaki Mihara, Itsuki Yamamoto, Ayumu Mizutani</i>	An analysis into the wing-tip vortex kinematics of a supercritical airfoil at moderate angle of attack (081) <i>Satoshi Baba, Guang C. Deng, Hadar Ben-Gida, Stéphane Moreau, Oksana Stalnov, Philippe Lavoie</i>
2:50 p.m.	Kirigami sheets in uniform and disturbed fluid flow (111) <i>Adrian Carleton, Yahya Modarres-Sadeghi</i>	On the supersonic separation of two bodies with different ballistic coefficients (053) <i>Vladislav Lukashenko, Fedor Maksimov</i>
3:10 p.m. – 3:40 p.m.	Coffee Break (Atrium, Science Building)	
3:40 p.m. – 5:20 p.m.	Technical Sessions 6 (Science Building)	
	Session 6A (Room 1120) Flow-Induced Vibration 1 <i>Session Chair: Danielle Moreau</i>	Session 6B (Room 1140) Jets 2 <i>Session Chair: Joseph Hall</i>

3:40 p.m.	Stall flutter response to longitudinal gusts at transitional Reynolds numbers (057) <i>Xiaoyang Zhang, Dominique Poirel, Weixing Yuan</i>	AI-based virtual engineering technique for active drag reduction of a maglev train (073) <i>Wan Z.R., Deng G.M., Xi L.C., Zhou Y.</i>
4:00 p.m.	Flow-induced vibration of separated two-phase flow in a piping structure with multiple elbows (065) <i>Olufemi E. Bamidele, Wael H. Ahmed, Marwan Hassan</i>	Dynamic flow vectoring by an array of synthetic jet actuators (080) <i>Hossein Khanjari, Ronald Hanson</i>
4:20 p.m.	Work-rate measurements of tubular bundles in single-phase cross flow (117) <i>Amro Elhelaly, Atef Mohany, Marwan Hassan</i>	Combined active and passive excitation of a jet: toward the transition control and enhanced turbulent mixing (072) <i>Linar Gareev, Oleg Ivanov, Vladimir Trifonov, Vasily Vedenev</i>
4:40 p.m.	Proper orthogonal decomposition analysis of a cylinder fitted with a spanwise tripwire undergoing flow induced vibrations (060) <i>Alis Ekmekci, Pouya Mohtat</i>	
5:00 p.m.	Performance of flow-induced vibrational power generator by a cantilevered circular cylinder with a finite-length splitter plate (049) <i>Takahiro Kiwata, Haruki Mitani, Mohamed Heragy, Toshiyuki Ueno, Alis Ekmekci</i>	
5:20 p.m.	End of Tuesday activities / supper on own – restaurants off campus are within walking distance	
TBD	International Organising Committee Meeting (invitation only)	
TBD	International Organising Committee Dinner (invitation only)	

Wednesday, July 30, 2025

8:30 a.m. – 10:10 a.m.	Technical Sessions 7 (Science Building)	
	Session 7A (Room 1120) Acoustics 3 <i>Session Chair: Alis Ekmekci</i>	Session 7B (Room 1140) Flow Control <i>Session Chair: Joaquin Moran</i>
8:30 a.m.	The noise radiation and unsteady wall pressure of a tip clearance flow under adverse pressure gradient (035) <i>Manuj Awasthi, Andre Vumbaca, Tingyi Zhang, Con Doolan, Danielle Moreau</i>	Experimental study of variable-incidence angle vortex generators for leading-edge roughness of wind turbine blades (039) <i>Donggeun Kim, SeongWoo Park, Jong-Seob Han</i>
8:50 a.m.	Effect of acoustic boundary conditions of the gas column on the resonance frequencies in burnt gas of hydrogen-containing mixture (098) <i>Yusei Kimura, Akane Uemichi</i>	Hydrodynamic response of a magnetic disk swarm floating on a free surface (064) <i>Dohyun Kim, Eunseong Moon, Daegyoun Kim</i>
9:10 a.m.	Flow-excited acoustic resonance from two tandem square rods (110) <i>Amin Nasrollah, Atef Mohany</i>	Aerodynamic and acoustic characteristics of propeller with mixed serration aspect ratio (040)

		<i>ChangJin Hong, HyunKyum Kim, JinTae Kim, JongSeob Han</i>
9:30 a.m.	Suppression of flow-induced acoustic resonance from a cylinder using a splitter plate (086) <i>Rasha Noufal, Hossam Kishawy, Atef Mohany</i>	Integrated AI-based optimization of geometric and active control parameters for drag reduction of an underwater vehicle model (016) <i>W.L. Zhao, G.M. Deng, Y. Zhou</i>
9:50 a.m.	Aeroacoustics radiation of a two-bladed rotor with flexible blades (048) <i>F. Hassenforder, S. Prothin, N. Doué</i>	Genetic algorithm-based optimization of miniature vortex generators for drag reduction in turbulent boundary layers (100) <i>Zihuang Yu, Kai Zhang, Zhi Wu, Hongquan Zhang, Yu Zhou</i>
10:10 a.m. – 10:50 a.m.	Coffee Break (Atrium, Science Building)	
10:50 a.m. – 11:30 a.m.	Plenary Lecture (Dr. Peter Zakarow Auditorium, Room 1350, Science Building) Session Chair: Horia Hangan Prof. Stéphane Moreau Wall-pressure fluctuations: a bridge between aeroacoustics, vibroacoustics and aeroelasticity (P)	
11:30 a.m. – 1:00 p.m.	Lunch (South Village Dining Hall)	
1:00 p.m.	Buses Leave for Niagara Falls (for those with pre-purchased tickets only)	
3:00 p.m.	Buses Arrive at Niagara Falls	
4:00 p.m. – 6:00 p.m.	Guided Tour of the historic Niagara Falls Power Station (complimentary tickets will be provided for those interested in the tour)	
7:00 p.m. – 7:30 p.m.	Reception (for those with pre-purchased tickets only)	
7:30 p.m. – 9:00 p.m.	Symposium Dinner (for those with pre-purchased tickets only)	
9:00 p.m.	Buses Leave for Ontario Tech University and Holiday Inn Express & Suites	
11:00 p.m.	Buses Arrive at Ontario Tech University and Holiday Inn Express & Suites	

Thursday, July 31, 2025

8:30 a.m. – 10:10 a.m.	Technical Sessions 8 (Science Building)	
	Session 8A (Room 1120) Fluid-Structure Interactions 3 <i>Session Chair: José Antunes</i>	Session 8B (Room 1140) Flow-Induced Vibration 2 <i>Session Chair: Motoaki Kimura</i>
8:30 a.m.	Effect of support clearance on the fluidelastic response of rotated square tube arrays (101) <i>Amro Elhelaly, Joaquin Moran, David Dawson, Marwan Hassan</i>	Flow induced vibration in a mixed geometry tube array (083) <i>Pegah Mehrabian, Njuki Mureithi</i>
8:50 a.m.	Modelling fluidelastic instability in rotated square tube arrays (115) <i>Amro Elhelaly, David Dawson, Salim El Bouzidi, Marwan Hassan</i>	A novel decay friction model with natural continuity (058) <i>Abdallah Hadji, Njuki Mureithi</i>

9:10 a.m.	Fluctuating surface pressure response of a small rotor exposed to an impinging jet (029) <i>Justin Malkki, Yendrew Yauwenas, Con Doolan, Danielle Moreau</i>	Vortex-induced vibration of the circular cylinder near of the seabed including seabed erosion (099) <i>Oleg Ivanov, Anastasiia Shishaeva</i>
9:30 a.m.	Experimental study and parametric analysis of the nonlinear aeroelastic dynamics of a pitching flexible cantilever (112) <i>David van Herpt, Dominique Poirel, David Clarabut</i>	Direction-adaptive energy harvesting using flow induced torsional oscillation of tandem cylinders (063) <i>Juncheng Shen, Lang Li, Mark A. Stremmer, Wenchao Yang</i>
9:50 a.m.	Theoretical investigation of a partially confined pipe simultaneously subjected to internal aspirating and external discharging flows (076) <i>Darya Mirhosseini, Arun K. Misra, Michael P. Paidoussis</i>	Experimental investigation of rotational vortex-induced vibrations of a circular cylinder attached to an elastic beam (050) <i>Yaroslav Demchenko, Oleg Ivanov, Vasily Vedenev</i>
10:10 a.m. – 10:40 a.m.	Coffee Break (Atrium, Science Building)	
10:40 a.m. – 12:00 p.m.	Technical Sessions 9 (Science Building)	
	Session 9A (Room 1120) Acoustics 4 <i>Session Chair: Zia Saadatnia</i>	Session 9B (Room 1140) Machine Learning/AI <i>Session Chair: Yu Zhou</i>
10:40 a.m.	Flap tip vortex dynamics contributing to noise generation (079) <i>Neil Farvolden, Hadar Ben-Gida, Oksana Stalnov, Philippe Lavoie</i>	Machine learning strategies for accelerating partitioned fluid-structure interaction simulations (094) <i>A. Tiba, T. Dairay, F. De Vuyst, J.P. Ramirez, I. Mortazavi</i>
11:00 a.m.	Analysis of wake evolution and noise spectra of a ship propeller using large-eddy simulation: effects of optimized boss cap with fin-foil and wavy rudder (113) <i>Mohammad-Reza Pendar, Duncan McIntyre, Peter Oshkai</i>	Analysis of the Duffing nonlinear oscillator using tropical algebra and physics informed neural networks (067) <i>Carla Victoria Valencia-Negrete, Alonso Octavio Andapia-Viveros, Marco Favela-Rodríguez</i>
11:20 a.m.	Investigation of vortex dynamics and radiated noise sources of the Voith-Schneider propeller with LES (114) <i>Duncan McIntyre, Mohammad-Reza Pendar, Michael Palm, Peter Oshkai</i>	Sparse Bayesian learning of nonlinear aerodynamics for aeroelastic limit cycle oscillations using wind-tunnel data (108) <i>David Clarabut, Brandon Robinson, Rimple Sandhu, Mohammad Khalil, Chris Pettit, Dominique Poirel, Abhijit Sarkar</i>
11:40 a.m.		Nonlinear aeroelastic prediction using sparse Bayesian physics-informed neural network (109) <i>Nastaran Dabiran, Brandon Robinson, Dominique Poirel, Abhijit Sarkar</i>
12:00 p.m. – 12:30 p.m.	Closing Session (Dr. Peter Zakarow Auditorium, Room 1350, Science Building)	
12:30 p.m. – 2:00 p.m.	Lunch (South Village Dining Hall)	