

## —CURRICULUM VITAE—

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**EMPLOYMENT HISTORY**

## Current

2020–present    **Assistant Professor**—Department of Atmospheric and Oceanic Sciences, McGill University, Montréal, Qc, Canada

## Past

2019–2020    **Postdoctoral Scientist**—Department of Civil, Chemical and Environmental Engineering, Polytechnic School, University of Genoa, Genoa, Italy

2016–2020    **Postdoctoral Associate**—WindEEE Research Institute, Western University, London, On, Canada

2012–2016    **Research and Teaching Assistant**—WindEEE Research Institute and Western University, London, On, Canada

2011–2012    **Meteorologist**—Republic Hydrometeorological Service of Serbia, Belgrade, Serbia

2010–2011    **Wind and Solar Power Team Leader**—South East Europe Consultants Ltd., Belgrade, Serbia

2007–2010    **Meteorology Consultant**—South East Europe Consultants Ltd., Belgrade, Serbia

**EDUCATION**

2012–2016    **PhD, Civil & Environmental Engineering**  
 Civil & Environmental Engineering, Western University, Canada

2009–2016    **PhD, Meteorology**  
 Institute of Meteorology, Faculty of Physics, University of Belgrade, Serbia

2002–2008    **MSc & BSc, Meteorology**  
 Institute of Meteorology, Faculty of Physics, University of Belgrade, Serbia

**AWARDS**

2023    Science Education Conference Award (SECA), McGill University  
 2019    Postdoctoral Scholar of the Year, Western University  
 2016    Global Opportunities Award, Western University  
 2016    WISE Competition 1<sup>st</sup> Place co-winner, Western University  
 2016    The Ross and Jean Clark Scholarship, Western University  
 2016    Student Delegate Winner at C4 CatIQ Conference, Catastrophe Indices and Quantification Inc. (CatIQ)  
 2015    Dr. Robert Addie Scholarship in Wind Engineering, Western University  
 2015    Alan G. Davenport Memorial Scholarship, Western University  
 2008    Best Student in Class, University of Belgrade  
 2007–2008    Ministry of Science and Education of Republic of Serbia Scholarship, University of Belgrade  
 2007    300 Best Undergraduate Students in Serbia, European Movement in Serbia

Nominated for the following awards and recognitions:

- 2021, 2023, 2024 Principal's Prize for Public Engagement through Media

- 2022 Principal's Prize for Outstanding Emerging Researchers
- 2024 William Dawson Scholar
- 2022 Canada Research Chair Tier 2
- 2024 President's Prize for Excellence in Teaching
- 2023, 2024 RSC The College of New Scholars, Artists and Scientists

## TEACHING

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Course instructor (U = undergraduate; G = graduate)

2024	Boundary Layer Meteorology ATOC 517 (G), McGill University, Montréal, Qc, Canada
2024	Science of Storms (G), University of Genoa, Genoa, Italy
2023–2024	Caribbean Climate and Weather ATOC 351 (U), McGill University, Holetown, Barbados
2023	Science of Storms ATOC 184 (U), McGill University, Montréal, Qc, Canada
2022	Mesoscale Meteorology ATOC 548 (G), McGill University, Montréal, Qc, Canada
2021–2023	Extreme-Weather and Climate-Change Physics ATOC 100 (U), McGill University, Montréal, Qc, Canada
2019	High Impact Weather and Thunderstorm Systems (G), University of Genoa, Genoa, Italy
2018	Wind Energy and Sustainability CEE 9531 (G), Western University, London, On, Canada

Teaching Assistant at Western University, London, On, Canada

2013–2016	Engineering Fluid Dynamics CEE 2224 in 2013, 2014, 2015, 2016 (U)
	Natural Disasters: Mitigation, Modelling and Assessment CEE 4461 in 2013 (U)
	Wind Engineering CEE 4480 in 2014 (U)
	Wind Engineering CEE 9526 in 2013, 2015 (G)

## STUDENTS SUPERVISION

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### PhD students (5)

2024–present	<b>Masoud Moeini</b> , Department of Atmospheric and Oceanic Sciences (AOS), McGill Research: Doppler lidar measurements and analysis of urban boundary layer dynamics
2024–present	<b>Ahmed Maky</b> , Department of Civil Engineering (co-supervisor Prof. M. Bezabeh), McGill Research: Downburst and seismic loads on wooden structures
2022–present	<b>Quinn Dyer-Hawes</b> , AOS, McGill Research: Numerical modelling of GHG dispersion in downtown Montreal
2022–2023	<b>Ninghui Li</b> , AOS, McGill (Note: The student had to withdraw due to visa issues.) Research: Doppler lidar measurements and analysis of urban boundary layer dynamics
2021–present	<b>Mohammad Hadavi</b> , AOS, McGill Research: Urban sustainability and resilience to thunderstorm winds <ul style="list-style-type: none"> <li>• Received 2024 FRQNT PhD scholarship</li> <li>• Received 2024 Lorne Trottier Science Accelerator Fellowships</li> <li>• Received 2023 Alma Mater Fellowship</li> <li>• 2021–2025 Grad Excellence Award</li> </ul>

### MSc students (6)

2023–	<b>Arya Toghraei</b> , AOS McGill Research: Aerosol particle concentrations in classrooms and graduate student offices <ul style="list-style-type: none"> <li>• Received 2024 FRQNT MSc scholarship.</li> </ul>
2023–	<b>Ruijia Yang</b> , AOS McGill Research: Physical simulation of tornadic wind loads on buildings with realistic design <ul style="list-style-type: none"> <li>• Received 2023 FRQNT MSc scholarship.</li> </ul>
2021–2023	<b>Katie Simzer</b> , AOS McGill Research: Dual Doppler wind retrieval of downburst-like impinging jets
2020–2022	<b>Masoud Moeini</b> , AOS McGill Research: Analytical model of the interaction between downbursts and background winds

- Received 2021 Peter Zwack Award for excellent academic performance.
- Nominated for the 2022 Governor General's Gold Medal Convocation Prize for the best MSc or PhD thesis at McGill

2019 **Andrea Ballestracci**, Department of Civil, Chemical and Environmental Engineering, Polytechnic School (DICCA), University of Genoa, Italy

Research: Aerodynamics of circular cylinders immersed in downburst-like outflows

2017–2018 **Edoardo Nicolini**, DICCA, University of Genoa, Italy

Research: Scaling of experimentally produced downburst-like impinging jets.

#### Undergraduate students (14)

2024 **Qabas Imbewa**, Physics and Computer Science, McGill

Research: Surface pressures in downburst-like outflows

2024 **Maria Paquin**, Life Science (switched to AOS), McGill (co-supervisor Prof. J Gyakum)

Research: Synoptics and boundary layer dynamics during cold front passage over Quebec

2024 **Devon Gulley**, AOS, McGill

Research: Wind engineering contributions to downburst research

2024t **Rich Chen**, Physics, McGill

Research: Urban boundary layer dynamics during total solar eclipse

2023–2024 **Dara Kiley**, CÉGEP John Abbott College

Research: System dynamics modelling of wind farm operations

2023–2024 **Chinmay Desai**, Computer Science, McGill

Research: System dynamics model of wind farm resilience to tornadoes

2023–2024 **Felix Belair**, Physics, McGill

Research: Urban boundary layer during a severe storm that passed over Montréal

2023 **Patrick Lane**, AOS, McGill

Research: Processing of wind tunnel data of downburst-like impinging jets

2023 **Lalita Allard Vava**, CÉGEP John Abbott College

Research: Analysis of downburst kinematics using video recordings of events

2022–2023 **Lucas Petropoulos**, Arts, McGill

Research: Review of analytical models of thunderstorm winds

2022–2024 **Katya Britton**, AOS, McGill

Research: User-friendly interface of analytical models of downbursts

2022 **Romane Bouchard**, AOS and Physics, McGill

Research: Monte Carlo modelling of tornado damage to wind farms in Germany

- Received 2022 USRA NSERC undergraduate research award

2021 **Joseph Samuel**, Earth System Science, McGill

Research: Vulnerability curves of wind turbines in tornadoes

2021 **Lutong Sun**, AOS, McGill

Research: Economic losses caused by severe winds in Quebec and Ontario

- Received 2021 SURA undergraduate research award.

#### Internship students and researcher trainees (5)

2024 **Noura Alsuwaidi**, Zayed University, Abu Dhabi, United Arab Emirates

Research: Climatology of sandstorms in Abu Dhabi

2024 **Antonia Marks**, University of West Indies Cave Hill Campus, St. Vincent and the Grenadines

Research: Emergency response of coastal communities to natural hazards

2022 **Sanola Sandiford**, University of West Indies, Barbados (co-supervisor Prof. J. Gyakum)

Research: Meteorological conditions and wind damage during Hurricane Elsa

2018 **Sévan Massimo**—Western University, Canada & ENSEEIHT, France (co-supervisor Prof. H. Hangan)

Research: Wind tunnel measurements of inclined downburst-like flows

2018–2019 **Hiroaki Shoji**—Western University, Canada & Shimizu Corporation, Japan (co-supervisor Prof. H. Hangan)  
Research: Dynamic structural analysis of luminary poles subjected to tornado-like winds

#### RESEARCH PROJECTS AND FUNDING AS INDEPENDENT RESEARCHER

Year	Project name	Amount*	Role, Funding agency
2025	Wind and wave effects on floating solar panels	€50,000	Investigator, Engineering Research Infrastructures for European Synergies (ERIES), Horizon 2020 Framework
2024–2025	Costal urban boundary layer dynamics	€36,000	Principal Investigator (PI), ERIES, Horizon 2020 Framework
2024	Climatic investigation of thunderstorms	€75,000	Investigator, ERIES, Horizon 2020 Europe Framework
2025	Investigation of extreme winds for the estimation of aerodynamic loads on containership and port infrastructures	\$107,500	Investigator, ERIES, Horizon 2020 Europe Framework
2024	Disaster response of Saint Vincent and the Grenadines to a multi-hazard scenario	Non-monetary	PI, McGill-UWI Queen Elizabeth Scholars Program
2023–2025	Dynamique et évolution de la couche limite urbaine sur Montréal, Québec	\$60,000	PI, Fonds de recherche Nature et technologies (FRQNT)
2022–2027	Operating fund for the project “Urban boundary-layer processes and their links to sustainability and resilience”	\$19,400	PI, Canada Foundation for Innovation Infrastructure Operating Fund (CFI IOF)
2023	Predicting the local impact of regional extreme weather events in smart cities	\$2,800	PI, Computational and Data System Initiative, McGill
2022–2024	Ventilation effectiveness in reducing aerosol particle concentrations in classrooms and graduate student offices pertaining to the COVID-19 pandemic	\$165,000	PI, Canadian Institutes of Health Research (CIHR), McGill
2022	Hurricane Elsa: Case study	Non-monetary	PI, McGill-Queen Elizabeth Scholars Program
2022–2027	An analysis of the distribution, variability and source apportionment of GHGs in Greater Montreal	\$1,798,075	Co-lead, Advancing Climate Change Action and Awareness Fund (CAAF)
2021–2022	Urban sustainability and resilience to thunderstorm winds	\$5,000	PI, McGill's NSERC General Research Grant
2021–2024	Urban boundary-layer processes and their links to sustainability and resilience	\$280,449	PI, CFI
2020–2026	Urban sustainability and resilience to thunderstorm winds	\$12,500	Principal Investigator, Natural Sciences and Engineering Research Council of Canada

(NSERC), Discovery Launch Supplement

2020–2026	Urban sustainability and resilience to thunderstorm winds	\$125,000	PI, NSERC Discovery
2020–2022	An analytical model of the interaction between the thunderstorm downbursts and ambient winds	\$50,000	PI, Wares Science Innovation Prospectors Fund, McGill
2020–2023	Start-up fund	\$150,000	PI, McGill

\*All dollars are Canadian Dollars.

**PUBLICATIONS**Journal Articles (J)\* Supervised students  
Google Scholar h-index = 17

---Submitted and under review---

- J54.** Yang R\*, **Romaic D**, Hangan H. 2024. Tornado-induced wind loads on a community of low-rise buildings. *J. Fluids Struct.* In review.
- J53.** Narancio G, **Romanic D**, Chowdhury J, Hong H-P, Hangan H. 2024. Can pressure coefficients obtained from ABL wind tunnel tests be used to evaluate tornado-induced loads on low-rise buildings? *J. Wind Eng. Ind. Aerodyn.* Submitted.
- J52.** Gao H, Li N\*, Zhang T, **Romanic D**, Wright J.S, 2024. A novel and generalized model of sea surface slope and its application to sun glint correction on HY-1C/COCTS imagery. *IEEE Trans. Geosci. Remote Sens.* In review.
- J51.** Hangna H, Canepa F, Burlando M, **Romanic D**. 2024. Modelling downburst winds in the context of Main Wind Force Resisting Systems. *Reliab. Eng. Syst. Saf.* In review.
- J50.** Burlando M, Miglietta M. M, Avolio E, Bechini R, Cassola F, De Martin F, Lagasio M, Milelli M, Parodi A, **Romanic D**. 2024. The –WIND RISK Project: nowcast and simulation of thunderstorm outflows. *Bull. Atmos. Sci. Tech.* Accepted.
- J49.** Bélair F\*, Dyer-Hawes Q\*, **Romanic D**. 2024. The dynamics of the urban boundary layer before and during a severe thunderstorm outflow over downtown Montréal. *Bound.-Lay. Meteorol.* In review.

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- J48.** Li N\*, Dyer-Hawes Q\*, **Romanic D**, Burlando M. 2024. Investigation of coastal winds and turbulence using Doppler lidar, Italy. *J. Geophys. Res. Atmos.* <https://doi.org/10.1029/2024JD041429>.
- J47.** Dyer-Hawes Q\*, **Romanic D**, Huang Y, Gyakum J, Douglas P. 2024. Analysis of urban wind conditions and wildfire smoke dispersion for downtown Montréal using computational fluid dynamics. *Build. Environ.* <https://doi.org/10.1016/j.buildenv.2024.112103>.
- J46.** **Romanic D**. 2024. Deterministic and constrained stochastic models of thunderstorm winds. *J. Wind Eng. Ind. Aerodyn.* 253. <https://doi.org/10.1016/j.jweia.2024.105851>.
- J45.** Sandiford S\*, **Romanic D**, Gyakum J. 2024. Meteorological analysis and damage survey study of Hurricane Elsa’s impact on Barbados. *Nat. Hazards Rev.* 25(3). <https://doi.org/10.1061/NHREFO.NHENG-1843>
- J44.** Hadavi M\*, **Romanic D**. 2024. Atmospheric conditions conducive to thunderstorms with downbursts in Canada and a downburst precursor parameter. *Atmos. Res.* 305. <https://doi.org/10.1016/j.atmosres.2024.107428>.
- J43.** Hadavi M\*, **Romanic D**. 2024. Machine learning investigation of downburst prone environments in Canada. *J. Appl. Meteorol.* 63(6), 677–697. <https://doi.org/10.1175/JAMC-D-23-0178.1>.

- J42.** Canepa F, Burlando M, **Romanic D**, Hangan H. 2024. Effect of surface roughness on large-scale downburst-like impinging jets. *Phys. Fluids*. 36(3). <https://doi.org/10.1063/5.0198291>.
- J41.** **Romanic D**, Kassab A, Chowdhury J, Hangan J, Doddipatla L. 2023. An analysis of the influence of a generic building on tornadic flow fields using high-frequency PIV and point velocity measurements. *J. Fluids Struct.* 123. <https://doi.org/10.1016/j.jfluidstructs.2023.104010>.
- J40.** Canepa F, Burlando M, Hangan H, **Romanic D**. 2023. Experimental translating downbursts immersed in the atmospheric boundary layer. *J. Wind Eng. Ind. Aerodyn.* 243. <https://doi.org/10.1016/j.jweia.2023.105570>.
- J39.** Dellwik E, **Romanic D**, Mann J, Enus M, Hangan H. 2023. Forest edge representation in scaled experiments: A flexible approach for matching to field observations. *Bound.-Lay. Meteorol.* 187, 793–817. <https://doi.org/10.1007/s10546-023-00796-z>.
- J38.** Bouchard R\*, **Romanic D**. 2023. Monte Carlo modeling of tornado hazard to wind turbines in Germany. *Nat. Hazards*. 116, 3899–3923. <https://doi.org/10.1007/s11069-023-05843-z>.
- J37.** **Romanic D**, Shoji H\*, Hangan H. 2022. Experimental investigation of surface pressures, velocities, and dynamic structural analysis of tornadic winds on a luminary pole. *J. Fluids Struct.* 116. <https://doi.org/10.1016/j.jfluidstructs.2022.103794>.
- J36.** Moeini M\*, **Romanic D**. 2022. An analytical solution to the perturbation analysis of the interaction between downburst outflows and atmospheric boundary layer winds. *J. Atmos. Sci.* 80(1), 301–319. <https://doi.org/10.1175/JAS-D-22-0123.1>.
- J35.** Hadavi M\*, Sun L\*, **Romanic D**. 2022. Normalized insured losses caused by windstorms in Quebec and Ontario, Canada, in the period 2008–2021. *Int. J. Disaster Risk Reduct.* 80. <https://doi.org/10.1016/j.ijdrr.2022.103222>.
- J34.** **Romanic D**, Tazsarek M, Brooks H. 2021. Convective environments leading to microburst, macroburst and downburst events across the United States. *Weather Clim. Extrem.* 37. <https://doi.org/10.1016/j.wace.2022.100474>.
- J33.** Canepa F, Burlando M, **Romanic D**, Solari G, Hangan H. 2021. Experimental investigation of the near-surface flow dynamics in downburst-like impinging jets. *Environ. Fluid Mech.* 22, 921–954. <https://doi.org/10.1007/s10652-022-09870-5>.
- J32.** Canepa F, Burlando M, **Romanic D**, Solari G, Hangan H. 2021. Downburst-like experimental impinging jet measurements at the WindEEE Dome. *Sci. Data*, 9 (243). <https://doi.org/10.1038/s41597-022-01342-1>.
- J31.** Canepa F, Burlando M, Hangan H, **Romanic D**. 2022. Experimental investigation of the near-surface flow dynamics in downburst-like impinging jets immersed in ABL-like winds. *Atmos.* 13(4), 621. <https://doi.org/10.3390/atmos13040621>.
- J30.** **Romanic D**. 2021. Mean flow and turbulence characteristics of a nocturnal downburst recorded on a 213 m tall meteorological tower. *J. Atmos. Sci.*, 78(11): 3629–3650. <https://doi.org/10.1175/JAS-D-21-0040.1>.
- J29.** Nichol S, Carriveau R, Miller L, Ting D S-K, **Romanic D**, Costache A, Hangan H. 2021. Experimental investigation of the movement of an offshore floating platform in straight wind, tornadic wind, and downburst conditions. *Energies*, 14(7). <https://doi.org/10.3390/en14072020>.
- J28.** Ashrafi A, **Romanic D**, Kassab A, Hangan H, Ezami N. 2020. Experimental investigation of large-scale tornado-like vortices. *J. Wind Eng. Ind. Aerodyn.*, 208. <https://doi.org/10.1016/j.jweia.2020.104449>.
- J27.** **Romanic D**, Ballestracci A\*, Canepa F, Solari G, Hangan H. 2020. Aerodynamic coefficients and pressure distribution on two circular cylinders with free end immersed in experimentally produced downburst-like outflows. *Adv. Struct. Eng.* 24(3), 522–538. <https://doi.org/10.1177/1369433220958>.
- J26.** **Romanic D**, Hangan H. 2020. Experimental investigation of the interaction between atmospheric boundary layer winds and downburst outflows. *J. Wind Eng. Ind. Aerodyn.*, 205. <https://doi.org/10.1016/j.jweia.2020.104323>.

- J25. Romanic D**, Junayed C, Jubayer C, Hangan H. 2020. Investigation of the transient nature of thunderstorm winds from Europe, the United States and Australia using a new method for detection of change points in wind speed records. *Mon. Weather Rev.* 148(9): 3747–3771. <https://doi.org/10.1175/MWR-D-19-0312.1>.
- J24.** Burlando M, **Romanic D**, Boni G, Lagasio M, Parodi A. 2020. Investigation of the weather conditions during the collapse of the Morandi Bridge in Genoa on 14 August 2018 using field observations and WRF model. *Atmos.* 11(7): 724. <https://doi.org/10.3390/atmos11070724>.
- J23. Romanic D**, Nicolini E\*, Hangan H, Burlando M, Solari G. 2020. A novel approach to scaling experimentally produced downburst-like impinging jet outflows. *J. Wind Eng. Ind. Aerodyn*, 166. <https://doi.org/10.1016/j.jweia.2019.104025>.
- J22.** Refan M, **Romanic D**, Parvu D, Michel G. 2019. Tornado loss model of Oklahoma and Kansas, United States, based on the historical tornado data and Monte Carlo simulation. *Int. J. Disaster Risk Reduct.* 43. <https://doi.org/10.1016/j.ijdr.2019.101369>.
- J21.** Ćurić M, Lompar M, **Romanic D**. 2019. Implementation of a novel seeding material (NaCl/TiO<sub>2</sub>) for precipitation enhancement in WRF: Description of the model and spatiotemporal window tests. *Atmos. Res.* 230. <https://doi.org/10.1016/j.atmosres.2019.104638>.
- J20.** Ćurić M, Lompar M, **Romanic D**, Zou L, Liang H. 2019. Three-dimensional modelling of precipitation enhancement by cloud seeding in three different climate zones. *Atmos.* 10(6), 294. Doi: <https://doi.org/10.3390/atmos10060294>.
- J19.** Jubayer C, **Romanic D**, Hangan H. 2019. Aerodynamic loading of a typical low rise building for an experimental stationary and non-Gaussian impinging jet. *Wind Struct.* 28(5), 315–329. Doi: <https://doi.org/10.12989/was.2019.28.5.315>.
- J18.** Junayed C, Jubayer C, Parvu D, **Romanic D**, Hangan H. 2019. Flow field dynamics of large-scale experimentally produced downburst flows. *J. Wind Eng. Ind. Aerodyn*, 188, 61–79. <https://doi.org/10.1016/j.jweia.2019.02.008>.
- J17.** Hangan H, **Romanic D**, Jubayer C. 2019. Three-dimensional, non-stationary and non-Gaussian (3D-NS-NG) wind fields and their implications to wind-structure interaction problems. *J. Fluids Struct.* 91. <https://doi.org/10.1016/j.jfluidstructs.2019.01.024>.
- J16. Romanic D**, LoTufo J, Hangan H. 2019. Transient behavior in impinging jets in crossflow with application to downburst flows. *J. Wind Eng. Ind. Aerodyn*, 184, 209–227. <https://doi.org/10.1016/j.jweia.2018.11.020>.
- J15. Romanic D.** 2019. Local winds of Balkan Peninsula. *Int. J. Climatol.* 39, 1–17. <https://doi.org/10.1002/joc.5743>.
- J14.** Lompar M, Ćurić M, **Romanic D**, Zou L, Liang H. 2018. Precipitation enhancement by cloud seeding using the shell structured TiO<sub>2</sub>/NaCl aerosol as revealed by new model for cloud seeding experiments. *Atmos. Res.* 212, 202–212. <https://doi.org/10.1016/j.atmosres.2018.05.021>.
- J13.** Petrović P, **Romanic D**, Ćurić M. 2018. Homogeneity analysis of wind data from 213 m high Cabauw tower. *Int. J. Climatol.* 38(51), e1076–e1090. <https://doi.org/10.1002/joc.5434>.
- J12.** Lompar M, Ćurić M, **Romanic D**. 2018. Implementation of a gust front head collapse scheme in the WRF numerical model. *Atmos. Res.* 203: 231–245. <https://doi.org/10.1016/j.atmosres.2017.12.018>.
- J11.** Hangan H, Refan M, Jubayer C, **Romanic D**, Parvu D, LoTufo J, Costache A. 2017. Novel techniques in wind engineering. *J. Wind Eng. Ind. Aerodyn.* 171, 12–33. <https://doi.org/10.1016/j.jweia.2017.09.010>.
- J10. Romanic D**, Hangan H, Ćurić M. 2017. Wind climatology of Toronto based on the NCEP/NCAR reanalysis 1 data and its potential relation to solar activity. *Theor. Appl. Climatol.* 131, 827–843. <https://doi.org/10.1007/s00704-016-2011-7>.
- J9. Romanic D**, Parvu D, Refan M, Hangan H. 2017. Wind and tornado climatologies and wind resource modelling for a modern development situated in “Tornado Alley”. *Renew. Energy.* 115, 97–112. <https://doi.org/10.1016/j.renene.2017.08.026>.

- J8.** Burlando M, **Romanic D**, Solari G, Hangan H, Zhang S. 2017. Field data analysis and weather scenario of a downburst event in Livorno, Italy on 1 October 2012. *Mon. Weather Rev*, 145(9), 3507–3527. <https://doi.org/10.1175/MWR-D-17-0018.1>.
- J7.** Lompar M, Ćurić M, **Romanic D**. 2017. Simulation of a severe convective storm using a numerical model with explicitly incorporated aerosols. *Atmos. Res.* 194, 164–177. <https://doi.org/10.1016/j.atmosres.2017.04.037>.
- J6.** **Romanic D**, Rasouli A, Hangan H. 2017. Urban wind resource assessment in changing climate: Case study. *Wind Eng.* 41(1), 3–12. <https://doi.org/10.1177/0309524X16653486>.
- J5.** **Romanic D**, Refan M, Wu C-H, Michel G. 2016. Oklahoma tornado risk and variability: A statistical model. *Int. J. Disaster Risk Reduct.* 16, 19–32. <https://doi.org/10.1016/j.ijdrr.2016.01.011>.
- J4.** **Romanic D**, Ćurić M, Lompar M, Jovičić I. 2016. Contributing factors to the Koshava wind characteristics. *Int. J. Climatol.* 36(2), 956–973. <https://doi.org/10.1002/joc.4397>.
- J3.** **Romanic D**, Ćurić M, M. Zarić, Jovičić I, Lompar M. 2016. Investigation of an extreme Koshava wind episode of January 30–February 4, 2014. *Atmos. Sci. Lett.* 17(2), 199–206. <https://doi.org/10.1002/asl.643>.
- J2.** **Romanic D**, Rasouli A, Hangan H. 2015. Wind resource assessment in complex urban environment. *Wind Eng.* 39(2), 193–212. <https://doi.org/10.1260/0309-524X.39.2.193>.
- J1.** **Romanic D**, Ćurić M, Jovičić I, Lompar M. 2015. Long-term trends of the Koshava wind during the period 1949–2010. *Int. J. Climatol.* 35(2), 288–302. <https://doi.org/10.1002/joc.3981>.

#### Books and Book Chapters (B)

- B6.** **Romanic D**, Hangan H. 2020. Analytical and semi-empirical models of tornadoes and downbursts. in: Hangan H and Kareem A (Eds.), *The Handbook of Non-Synoptic Wind Storms*. Oxford University Press. New York, New York, United States. <https://doi.org/10.1093/oxfordhb/9780190670252.013.32>.
- B5.** **Romanic D**. 2020. Forecasting of tornadoes and downbursts: Challenges, prioritization and progress. in: Hangan H and Kareem A (Eds.), *The Handbook of Non-Synoptic Wind Storms*. Oxford University Press. New York, New York, United States. <https://doi.org/10.1093/oxfordhb/9780190670252.013.3>.
- B4.** Burlando M, **Romanic D**. 2020. Groundbreaking contributions to downburst monitoring, modelling, and detection. in: Hangan H and Kareem A (Eds.), *The Handbook of Non-Synoptic Wind Storms*. Oxford University Press. New York, New York, United States. <https://doi.org/10.1093/oxfordhb/9780190670252.013.10>.
- B3.** Hangan H, Refan M, **Romanic D**. 2020. Relation Between Full-Scale and Model Data. in: Hangan H and Kareem A (Eds.), *The Handbook of Non-Synoptic Wind Storms*. Oxford University Press. New York, New York, United States. <https://doi.org/10.1093/oxfordhb/9780190670252.013.19>.
- B2.** **Romanic D**, Hangan H. 2019. The interplay between background atmospheric boundary layer winds and downburst outflows. A first physical experiment. in: Ricciardelli F., Avossa A. (Eds), *Proceedings of the XV Conference of the Italian Association for Wind Engineering*. IN VENTO 2018. Lecture Notes in Civil Engineering, 27, Springer, Cham. Doi: [https://doi.org/10.1007/978-3-030-12815-9\\_49](https://doi.org/10.1007/978-3-030-12815-9_49).
- B1.** Burlando M, **Romanic D**, Hangan H, Solari G. 2019. Wind tunnel experimentation on stationary downbursts at WindEEE. in: Ricciardelli F., Avossa A. (Eds), *Proceedings of the XV Conference of the Italian Association for Wind Engineering*. IN VENTO 2018. Lecture Notes in Civil Engineering, 27, Springer, Cham. Doi: [https://doi.org/10.1007/978-3-030-12815-9\\_11](https://doi.org/10.1007/978-3-030-12815-9_11).

#### Data and Datasets (D)

- D2.** Canepa F, Burlando M, **Romanic D**, Hangan H. 2024. Experimental measurements of the effects of surface roughness on large-scale downburst-like impinging jets at the WindEEE Dome laboratory. Zenodo, <https://doi.org/10.5281/zenodo.10686951>.
- D1.** Canepa F, Burlando M, **Romanic D**, Solari G, Hangan H. 2021. Downburst-like experimental measurements of two vertical-axis impinging jets at the WindEEE Dome. *PANGAEA*, Doi: <https://doi.pangaea.de/10.1594/PANGAEA.931205>. (dataset descriptor article is J32).

#### Conference Papers and Presentations (C)

Underline indicates that I presented the research.

- C54. Žužul J, Ricci A, Burlando M, Chowdhury J, **Romanic D**, Hangan H. 2024. LES simulation on the CAARC standard tall building under thunderstorm downbursts. 9th International Colloquium on Bluff Body Aerodynamics and Applications (BBAA). 29 July–2 August 2024. Birmingham, United Kingdom.
- C53. Bezabeh M, Berile N, **Romanic D**. 2024. Nonlinear dynamic response of structures under stochastically simulated downburst wind loads. 9th International Colloquium on Bluff Body Aerodynamics and Applications (BBAA). 29 July–2 August 2024. Birmingham, United Kingdom.
- C52. Yang R\*, **Romanic D**, Hangan H. 2024. Surface pressures exerted by tornado-like vortices on a realistic community of low-rise buildings. 9th International Colloquium on Bluff Body Aerodynamics and Applications (BBAA). 29 July–2 August 2024. Birmingham, United Kingdom.
- C51. Dyer-Hawes Q\*. **Romanic D**. 2024. A CFD analysis of urban wind conditions and wildfire smoke dispersion for downtown Montréal. Thousand Islands Fluid Dynamics Meeting 2024. 10–12 May 2024. Gananoque, Ontario, Canada.
- C50. **Romanic D**. 2024. Deterministic and constrained stochastic models of thunderstorm winds. 1000 Islands Fluid Dynamics Meeting 2024. 10–12 May 2024. Gananoque, Ontario, Canada.
- C49. Hadavi M\*, **Romanic D**. 2024. Artificial intelligence-based investigation of severe thunderstorms producing downbursts in Canada. 23rd Conference on Artificial Intelligence for Environmental Science (within 104<sup>th</sup> American Meteorological Society Annual Meeting). 28 January–1 February 2024. Baltimore, Maryland, United States.
- C48. Dyer-Hawes Q\*, **Romanic D**, Huang Y, Gyakum J, Douglas P. 2024. A CFD analysis of urban wind conditions and wildfire smoke dispersion for downtown Montréal. 23rd Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA (within 104<sup>th</sup> American Meteorological Society Annual Meeting). 28 January–1 February 2024. Baltimore, Maryland, United States.
- C47. **Romanic D**. 2023. Monte Carlo modelling of natural hazard losses to critical infrastructure. Safety of infrastructure systems: concepts - regulations – practice. 12–13 October 2023. Belgrade, Serbia.
- C46. Narancio G, **Romanic D**, Chowdhury J, Hangan H, Hong H.P. 2023. Can pressure coefficients obtained from ABL wind tunnel be used for tornadoes? 16<sup>th</sup> International Conference on Wind Engineering (ICWE16). 27–31 August 2023. Florence, Italy.
- C45. Hangan H, Canepa F, Burlando M, **Romanic D**. 2023. Modelling of downbursts based on physical experiments. 16<sup>th</sup> International Conference on Wind Engineering (ICWE16). 27–31 August 2023. Florence, Italy.
- C44. Xhelaj A, Žužul J, Canepa F, Ricci A, **Romanic D**, Burlando M, Hangan H. 2023. Comparison between a stationary downburst-like impinging jet and analytical models. 16<sup>th</sup> International Conference on Wind Engineering (ICWE16). 27–31 August 2023. Florence, Italy.
- C43. **Romanic D**, Hadavi M\*. 2023. Investigation of downburst-prone environments in Canada using machine learning methods. 16<sup>th</sup> International Conference on Wind Engineering (ICWE16). 27–31 August 2023. Florence, Italy.
- C42. Gonzalez-Moguel R, Asomaning J, Douglas P, Vogel F, Ars S, Huang Y, **Romanic D**, Gyakum J. 2023. Mobile survey of greenhouse gas concentrations in Greater Montréal: Preliminary analysis of seasonal emissions variability and evaluation of spatial interpolation methods. 57<sup>th</sup> Canadian Meteorological and Oceanographic Society (CMOS) Congress. 28 May–1 June. St. John's, Newfoundland, Canada.
- C41. Ghirardi B, Huang Y, Liu L, Gyakum J, Douglas P, **Romanic D**. 2023. Ground-based infrared hyperspectral profiling of atmospheric CO<sub>2</sub>. 57<sup>th</sup> Canadian Meteorological and Oceanographic Society (CMOS) Congress. 28 May–1 June. St. John's, Newfoundland, Canada.
- C40. Hadavi M\*, **Romanic D**. 2023. Investigation of the atmospheric environments prone to downbursts in Canada using machine learning models. 57<sup>th</sup> Canadian Meteorological and Oceanographic Society (CMOS) Congress. 28 May–1 June. St. John's, Newfoundland, Canada.

- C39.** Hourngir D, Burlando M, **Romanic D.** 2022. Climatology of high-impact weather events in the Ligurian Sea. 17th Plinius Conference on Mediterranean Risks. 18–21 October 2022. Frascati, Italy.
- C38.** Narancio G, Hangan H, Hong H-P, **Romanic D,** Chowdhury J. 2022. Comparison of tornado-induced loads to ASCE/SEI 7-22 provisions for low-rise residential buildings. 8<sup>th</sup> European-African Conference on Wind Engineering (EACWE). 20–23 September 2022. Bucharest, Romania.
- C37.** Canepa F, Burlando M, Hangan H, **Romanic D.** 2022. Physical simulations of the effects of ABL-like winds and storm translation on downburst-like outflows. 8<sup>th</sup> European-African Conference on Wind Engineering (EACWE). 20–23 September 2022. Bucharest, Romania.
- C36.** Moeini M\*, **Romanic D.** 2022. Analytical model of interaction between downburst outflows and atmospheric boundary layer winds. 17<sup>th</sup> Conference on Wind Engineering—In-Vento 2022. 4–7 September 2022. Milano, Italy.
- C35.** Canepa F, Burlando M, **Romanic D,** Hangan H. 2022. Effect of surface roughness on large-scale downburst-like impinging jet outflows. 17<sup>th</sup> Conference on Wind Engineering—In-Vento 2022. 4–7 September 2022. Milano, Italy.
- C34.** Moeini M\*, **Romanic D.** 2022. An analytical solution to the interaction between downburst outflows and atmospheric boundary layer winds. 1000 Islands Fluid Dynamics Meeting 2022. 24–25 May 2022. Gananoque, Ontario, Canada.
- C33.** **Romanic D,** Lompar M, Jovicic I. 2022. WRF simulation of idealized downburst in background winds. 14<sup>th</sup> American Conference on Wind Engineering (ACWE). 17–19 May 2022. Lubbock, Texas, United States.
- C32.** Canepa F, Burlando M, Hangan H, Solari G, **Romanic D.** 2022. Large-scale experimental characterization of the flow interactions throughout the occurrence of downburst winds. 14<sup>th</sup> American Conference on Wind Engineering (ACWE). 17–19 May 2022. Lubbock, Texas, United States.
- C31.** Benavent-Oltra, J. A., **Romanic, D.,** Lompar M., Burlando M. 2021. Comparison between the 2D wind fields retrieved by a scanning Doppler lidar and anemometric measurements. European Meteorological Society (EMS) Annual Meeting.
- C30.** Benavent-Oltra, J. A., **Romanic, D.,** Lompar M., Burlando M. 2021. Comparison between the 2D wind fields retrieved by a scanning Doppler lidar and anemometric measurements. 3rd European Lidar Conference (ELC). 16–18 November 2021. Granada, Spain.
- C29.** Narancio G, **Romanic D,** Chowdhury J, Hangan H. 2020. Tornado hazard and exposure model for Canadian communities. Progress in Canadian Mechanical Engineering, vol. 3, Canadian Society for Mechanical Engineering International Congress (CSME 2020). 21–24 June 2020. Charlottetown, Prince Edward Islands, Canada.
- C28.** Narancio G, **Romanic D,** Chowdhury J, Hangan H. 2020. Tornado hazard and exposure model for Canadian communities. 54<sup>th</sup> Canadian Meteorological and Oceanographic Society Congress (CMOS 2020). 26 May–10 June 2020. Ottawa, Ontario, Canada.
- C27.** Dellwik E, Angelou N, Bekkers C, **Romanic D.** 2020. Downburst effect on a solitary oak tree. The 9th International Wind and Trees Conference (IUFRO 2020). 24–28 February 2020. Rotorua, New Zealand.
- C26.** Jubayer C, Junayed C, **Romanic D,** Parvu D, Hangan H. 2019. Turbulence characteristics of downburst outflow in a large-scale simulator. The 15th International Conference on Wind Engineering (ICWE 2019). 1–6 September 2019. Beijing, China.
- C25.** **Romanic D,** Junayed C, Jubayer C, Hangan H. 2019. Investigation of abrupt changes in thunderstorm velocity record. The 15th International Conference on Wind Engineering (ICWE 2019). 1–6 September 2019. Beijing, China.
- C24.** Ashrafi A, **Romanic D,** Hangan H. 2019. Flow properties for a large scale tornado-like vortex. The 15th International Conference on Wind Engineering (ICWE 2019). 1–6 September 2019. Beijing, China.
- C23.** **Romanic D,** H. Shoji, H. Hangan. 2019. Dynamic structural analysis of scaled lighting pole model in physically simulated tornadic flow. 5th Symposium on Fluid-Structure-Sound Interactions and Control (FSSIC 2019). 27–30 August 2019. Crete, Greece.

- C22.** Ashrafi A, **Romanic D**, Jubayer C, Hangan H. 2018. Producing 1/100 and larger scale tornadoes in a wind simulator. Tornado Hazard Wind Assessment and Reduction Symposium (THWARTS 2018). 26–27 September 2018. Champaign, Illinois, United States.
- C21.** Jubayer C, **Romanic D**, Hangan H. 2018. Aerodynamics of tornado-like vortices around a low-rise building. Engineering Mechanics Institute (EMI) Conference 2018, American Society of Civil Engineers (ASCE). 29 May–1 June 2018. Boston, Massachusetts, United States.
- C20.** **Romanic D**, Hangan H. 2019. The interplay between background atmospheric boundary layer winds and downburst outflows. A first physical experiment. XV Conference of the Italian Association for Wind Engineering (IN-VENTO 2018). 9–12 September 2018. Napoli, Italy.
- C19.** Burlando M, **Romanic D**, Hangan H, Solari G. 2019. Wind tunnel experimentation on stationary downbursts at WindEEE. XV Conference of the Italian Association for Wind Engineering (IN-VENTO 2018). 9–12 September 2018. Napoli, Italy.
- C18.** LoTufo J, **Romanic D**, Hangan H. 2017. Non-Gaussian turbulent flow over a coastal escarpment. International Conference on Future Technologies for Wind Energy (WindTech2017), 24–26 October 2017. Boulder, Colorado, United States.
- C17.** **Romanic D**, Hangan H. 2017. Wind resource assessment in tornado prone area in the United States. International Conference on Future Technologies for Wind Energy (WindTech2017), 24–26 October 2017. Boulder, Colorado, United States.
- C16.** Jubayer C, Hangan H, **Romanic D**. 2017. Combined numerical and large scale experimental study of wind flow over a complex topographic terrain. 1000 Islands Fluid Mechanics Meeting (T.I.M. 2017), 21–23 April 2017. Gananoque, Ontario, Canada.
- C15.** Karami M, **Romanic D**, Refan M, Hangan H. 2017. Modeling of tornado-like vortices. 1000 Islands Fluid Mechanics Meeting (T.I.M. 2017), 21–23 April 2017. Gananoque, Ontario, Canada.
- C14.** Kassab A, **Romanic D**, Costache A, Hangan H. 2017. Simultaneous pressure and PIV measurements on low-rise building. 1000 Islands Fluid Mechanics Meeting (T.I.M. 2017), 21–23 April 2017. Gananoque, Ontario, Canada.
- C13.** Jubayer C, **Romanic D**, Hangan H. 2017. Effect of a large scale impinging jet on a standard tall building. 7th European and African Conference on Wind Engineering (EACWE 2017), 3–6 July 2017. Liège, Belgium.
- C12.** **Romanic D**, Parvu D, Hangan H. 2017. Influence of background winds and storm motion on downburst outflow. 7th European and African Conference on Wind Engineering (EACWE 2017), 3–6 July 2017. Liège, Belgium.
- C11.** Hangan H, Jubayer C, Refan M, **Romanic D**, Parvu D, LoTufo J, Costache A. 2016. New frontiers in wind engineering. 14th International Symposium on Structural Engineering (ISSE-14). 12–15 October 2016. Beijing, China.
- C10.** **Romanic D**, Parvu D, Hangan H, Solari G, Burlando M. 2016. New methodology for determining downburst touchdown location. XIV Conference of the Italian Association for Wind Engineering (IN-VENTO 2016). 25–28 September 2016. Terni, Italy.
- C9.** **Romanic D**, Parvu D, Hangan H. 2016. Downburst reconstruction using physical simulation and analytical model with application to urban environments. In Proceedings of the First International Conference on Urban Physics (FICUP). 28 September–2 October 2016. Quito & Galapagos Islands, Ecuador.
- C8.** **Romanic D**, Parvu D, Hangan H. 2016. Fluctuating wind generator: Theoretical concept and model. 1000 Islands Fluid Mechanics Meeting (T.I.M. 2016), 22–24 April 2016. Gananoque, Ontario, Canada.
- C7.** **Romanic D**, Hangan H. 2015. Coupling of numerical weather prediction models and physical simulations for urban wind environment. 9th International Conference on Urban Climate (ICUC9). 20–24 July, 2015. Toulouse, France.
- C6.** **Romanic D**, Hangan H. 2015. Urban wind resource assessment in changing climate: Case study. 4th Climate Change Technology Conference (CCTC 2015), 25–27 May 2015. Montréal, Quebec, Canada.

- C5.** Siddiqui K, Hangan H, Bitsuamlak G, Mann J, Berg J, Refan M, Jubayer C, Kilpatrick R, **Romanic D**, Lange J. 2014. Energy related research at the WindEEE Research Institute. 1000 Islands Energy Research Forum, University of Ottawa, 23–25 October 2014. Ottawa, Ontario, Canada.
- C4.** Rasouli A, **Romanic D**, Hangan H. 2014. Wind resource assessment in complex urban environments: Case study. Offshore Energy & Storage Symposium and Industry Connector Event 2014 (OSES 2014). 10–11 July 2014. Windsor, Ontario, Canada.
- C3.** Rasouli A, **Romanic D**, Hangan H. 2014. Sustainable analysis for an urban block: Wind energy production. In: Proceedings of 6. International Symposium on Computational Wind Engineering. 428–429. June 8–12 2014. Hamburg, Germany.
- C2.** **Romanic D**, Jovičić I. 2011. Influence of long-term wind speed changes on the wind farm production (In Serbian). Energetika 2011, 194–199. March 2011. Zlatibor, Serbia.
- C1.** **Romanic D**, Banjalić M. 2010. Numerical modeling of anemometers mounted on the roof of weather stations with applications to wind farm production (In Serbian). Energetika 2010, 55–58. March 2010. Zlatibor, Serbia.

#### INVITED TALKS

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- 2024 20th International Advanced School on Wind Engineering, Chongqing, China  
Two talks: (1) Thunderstorms; (2) Downbursts and tornados
- 2024 4th International High-end Forum on Wind Disaster Mitigation and Wind Energy Utilization, Chongqing, China  
Title: Deterministic and constrained stochastic models of thunderstorm winds
- 2024 School of Civil Engineering, University of Chongqing, Chongqing, China  
Title: Measurements and modeling of flows in urban areas
- 2024 Department of Atmospheric and Oceanic Sciences, McGill University, Montréal, Qc, Canada  
Title: Deterministic and constrained stochastic models of thunderstorm winds
- 2024 Hydro Québec Research Institute, Varennes, Qc, Canada  
Title: Extreme weather and infrastructure
- 2024 MAPLE Community Workshop, Flight Research Laboratory, Ottawa, On, Canada  
Title: Airborne probing of the origin of extreme thunderstorm winds and tornados in Canada
- 2023 School of Graduate and Postdoctoral Studies, Western University, London, On, Canada  
Title: Academic jobs and interview process
- 2023 PhD Program in Security, Risk and Vulnerability, University of Genoa, Genoa, Italy  
Title: Monte Carlo modelling of tornado losses and resilience of different infrastructure
- 2022 Queen Elizabeth Scholars Program Seminar, McGill University, Montréal, Qc, Canada  
Title: Modelling of risks and losses from natural hazards: Tornadoes case study
- 2022 Lakehead University, Faculty of Engineering, Orillia, On, Canada  
Title: Atmospheric science and wind engineering aspects of downbursts
- 2021 International Advanced School on Thunderstorm Outflows and Their Impact on Structures, Genoa, Italy  
Title: A study of nocturnal thunderstorm outflow
- 2021 PhD Program in Security, Risk and Vulnerability, University of Genoa, Genoa, Italy  
Title: Monte Carlo modelling of tornado losses and resilience of residential homes
- 2020 Department of Atmospheric and Oceanic Sciences, McGill University, Montréal, Qc, Canada  
Title: Thunderstorm boundary-layer dynamics and their links to sustainability and resilience
- 2020 National Severe Storms Laboratory, Norman, Ok, United States  
Title: Wind tunnel reconstruction and statistical modelling of downbursts and tornadoes
- 2019 Department of Mechanical and Structural Engineering and Materials Science, University of Stavanger, Stavanger, Norway  
Title: Statistical and physical modelling of thunderstorm downbursts
- 2019 Meteorology and Remote Sensing, Department of Wind and Energy Systems, Risø Technical University of Denmark, Roskilde, Denmark

- 2018 Title: Statistical and physical modelling of thunderstorm downbursts  
Institute of Geophysics and Meteorology, University of Cologne, Cologne, Germany  
Title: Transient and non-Gaussian nature of thunderstorm winds: Mathematical and physical modelling
- 2018 Faculty of Physics, University of Belgrade, Belgrade, Serbia  
Title: Mathematical and physical modelling of thunderstorm winds
- 2016 CatIQ Canadian Catastrophe Conference (C4), Toronto, On, Canada  
Title: Oklahoma tornado loss model
- 2011 Republic Hydrometeorological Service of Serbia, Belgrade, Serbia  
Title: Atmospheric science applications in wind resource assessment

## SELECTED ACADEMIC ACTIVITIES AND SERVICES

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### Selected academic Services

- 2020–present Adjunct Research Professor, Department of Civil and Environmental Engineering, Western University
- 2021– Undergraduate and Graduate Student Recruitment Committee, Department of Atmospheric and Oceanic Sciences (AOS), McGill
- 2021–2023 Graduate Admission Committee, AOS, McGill
- 2023–2024 Department Seminar Coordination Committee, AOS, McGill
- 2023 Dean’s Advisory Committee Towards the Selection of the Next Chair of the AOS, McGill
- 2021–present Examiner on 3 PhD thesis defenses, AOS, McGill
- 2022–present Examiner on 7 PhD comprehensive exams, AOS and other faculties, McGill
- 2020–present Examiner on 4 PhD proposal exams, AOS, McGill
- 2022–present Examiner for 5 MSc thesis, AOS, McGill
- 2023–2024 Third National Conference on Wind Engineering (3NCWE). Scientific committee board member
- 2023 Department’s Early Career Researcher Representative in UCAR (University Corporation for Atmospheric Research) Annual Meeting in Boulder, Colorado, United States
- 2021–2023 Faculty Scholarships Committee, Faculty of Science, McGill
- 2021–2022 Graduate Mobility Award Committee, Faculty of Science, McGill
- 2022 Pro-Dean for 2 PhD defenses, McGill
- 2022– TD Insurance Advisory Board on Climate Change Committee member
- 2022 “Would you fund it?” mentor for student and postdoc fellowship applications, McGill
- 2021, 2023 Faculty Student Speed Networking—Undergraduate Student Interviews, McGill
- 2021 Soup and Science Orientation speaker, McGill
- 2021–present Department of Atmospheric and Oceanic Sciences Faculty Research Presentations, McGill
- 2018–2020 WindEEE Research Institute Research Committee member, Western University

### Refereeing

Atmospheric science journals ranked alphabetically: Atmosphere (2); Atmospheric Research (87); Boundary-Layer Meteorology (1); Geoscience Data Journal (2); International Journal of Climatology (4); Journal of Applied Meteorology and Climatology (2); Journal of Geophysical Research—Atmospheres (3); Geophysical Research Letters (2); Journal of Applied Meteorology and Climatology (2); Journal of the Atmospheric Sciences (2); Meteorological Applications (2); Meteorology and Atmospheric Physics (1); npj Climate and Atmospheric Science (1); Urban Climate (1); Weather and Climate Extremes (2).

Applied sciences and engineering journals ranked alphabetically: Applied Energy (1); Computation (1); Energy Exploration & Exploitation (1); Frontiers in Built Environment (1); International Journal of Disaster Risk Reduction (2); International Journal of Electrical Power and Energy Systems (1); Journal of Fluid Mechanics (2); Journal of Structural Engineering (4); Journal of Wind Engineering and Industrial Aerodynamics (41); Natural Hazards Review (2); Natural Hazards and Earth System Sciences (1); Renewable Energy (1); RBRH, Brazilian Journal of Water Resources (1); Sustainable Cities and Society (2); Wind Energy Science (2).

Research grant proposals (year): European Research Council Consolidator Grant (2021); Natural Sciences and Engineering Research Council of Canada Alliance Grant (2021); Mitacs Accelerate Grant (2022); Mitacs Elevate Grant (2023); Alliance Grants-Mitacs Accelerate (2024); Latvian Council of Science (2024).

### Science Communication and Outreach

- 2020–present. YouTube channel on atmospheric sciences, wind engineering, and wind energy: <https://www.youtube.com/c/DjordjeRomanic/>
- 2024, July 16. CTV Montreal. Why are there so many heat waves?
- 2024, July 16. CBC Radio Let's Go with Sabrina Marandola. Heat waves linked to climate change with Canada's new tool
- 2024, July 11. Happy TV (Serbia), Telemaster. [In Serbian]: Tropiski dani u Srbiji tokom jula 2024. godine (Tropical days in Serbia in July 2024)
- 2024, March 7. CJAD 800 Live. Climate forecasts for Spring 2024 and El Nino
- 2024, February 27. Quebec Science. Weather in the era of intensifying extreme events
- 2023, December 30. CTV National News. Dangerous flood conditions
- 2023, December 11. CTV News Montreal. A milder winter thanks to El Nino?
- 2023, December 8. McGill News. Expert: Canada's winter forecast and the critical factor of El Niño
- 2023, September 4. Science News: How thunderstorms can spawn damaging 'downbursts'
- 2023, July 26. The Canadian Press published in The Globe and Mail: Heat warnings in Canada: How the alert system for hot weather varies across the county
- 2023, July 20. CBC Radio One -- Radio Noon Quebec with Leah Hendry: All about tornadoes
- 2023, July 11. CBC Radio One -- Let's Go with Sabrina Marandola: Thunderstorms and summer
- 2023, June 5. Montreal Now on CJAD 800 Live: Rising tide and the tragic fishing accident in Quebec
- 2023, May 21. 580 CFRA Live: Rising earth temperature and what it means for Canada?
- 2023, May 17. CBC News: Flirting with climate danger: UN forecasts 2 in 3 chance of briefly hitting key heat limit soon
- 2022, July 11. Montreal Gazette YouTube Channel: Why is wind so important?
- 2022, July 11. Montreal Gazette: Hold onto your hats, it's windier in Montreal
- 2021, April 21. MTL Blog: Why is it snowing in Montreal
- 2021, March 3. Student interview. Institute of Meteorology, University of Belgrade: Why study meteorology? [in Serbian language].
- 2019, March 14. The London Free Press: Ottawa tornado breaks new ground for London researchers

### SELECTED CONSULTING REPORTS (R)

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- R23.** Jubayer C, **Romanic D**, Hangan H. 2019. Phase 3; Part 1: Reference wind speed for calculating pressure coefficients in tornadic flows. WindEEE Research Institute, Western University, London, On, Canada.
- R22.** Jubayer C, Hangan H, **Romanic D**. 2018. Wind loads research. Part 4, Phase 2: Pressure coefficients in ASCE format. WindEEE Research Institute, Western University, London, On, Canada.
- R21.** **Romanic D**. 2018. WindEEE Dome—ABL and Orography Winds. WindEEE Research Institute (RI), Western University, London, On, Canada.
- R20.** **Romanic D**. 2018. WindEEE Dome—Tornadoes. WindEEE RI, Western University, London, On, Canada.
- R19.** **Romanic D**. 2018. WindEEE Dome—Downbursts. WindEEE RI, Western University, London, On, Canada.
- R18.** **Romanic D**, Chowdhury J, Hangan H. 2018. Wind loads research. Parts 2 & 3, Phase 2: Application of quasi-steady theory on experimentally produced tornadic flows. Constructing time series of  $C_p$ 's. WindEEE RI, Western University, London, On, Canada.
- R17.** **Romanic D**, Jubayer C, Hangan H. 2018. Wind loads research. Part 2, Phase 1: Measuring tornadic flows. WindEEE RI, Western University, London, On, Canada.
- R16.** Refan M, **Romanic D**, Hangan H. 2017. Tornado loss prevention. WindEEE Research Institute, Western University, London, On, Canada.

- R15. Romanic D**, 2017. Wind impact studies for the Kansas Project Phase II: Wind loads. WindEEE RI, Western University, London, On, Canada.
- R14. Romanic D**, 2016. Wind impact studies for the Kansas Project Phase II: Wind resource assessment. WindEEE RI, Western University, London, On, Canada.
- R13. Romanic D**, 2016. Wind impact studies for the Kansas Project Phase I: Tornado climatology. WindEEE RI, Western University, London, On, Canada.
- R12. Romanic D**. 2016. Wind impact studies for the Kansas Project Phase I: Site analysis and site climatology. WindEEE RI, Western University, London, On, Canada.
- R11. Costache A, Refan M, Romanic D**. 2014. WindEEE Research Institute Annual Report 2013-2014. WindEEE RI, Western University, London, On, Canada.
- R10. Milić-Petrović B, Romanić D**. 2012. Evaluation of meteorological risks of severe weather for the city of Novi Sad, Serbia. Republic Hydrometeorological Service of Serbia, Belgrade, Serbia.
- R9. Romanić D** and others. 2011. Wind resource assessment—measurement. South East Europe Consultants Ltd. (SEEC), Belgrade, Serbia.
- R8. Romanić D** and others. 2011. Wind resource assessment—Žabljak. SEEC, Belgrade, Serbia.
- R7. Romanić D** and others. 2010. Wind resource assessment—Crni Vrh. SEEC, Belgrade, Serbia.
- R6. Romanić D**. 2009. Feasibility study of the Power Tower patent and a small wind turbine concept patent. SEEC, Belgrade, Serbia.
- R5. Romanić D** and others 2010. Wind resource assessment—Gacko. SEEC., Belgrade, Serbia.
- R4. Romanić D** and others. 2009. Wind resource assessment for the „La Piccolina: wind farm and analysis of wind, snow and ice loads on the 35kV transmission power line Žagajica—TS Vršac 1. SEEC, Belgrade, Serbia.
- R3. Romanić D** and others. 2009. Wind resource assessment—Šušare. SEEC., Belgrade, Serbia.
- R2. Romanić D** and others. 2009. Wind resource assessment—Kruščica. SEEC, Belgrade, Serbia.
- R1. Romanić D** and others. 2009. Wind resource assessment—Vračev Gaj. SEEC, Belgrade, Serbia.

#### RESEARCH POSTERS (P)

- P9. Dyer-Hawes Q\*, Romanic D, Huang Y, Gyakum J, Douglas P**. 2024. A CFD analysis of urban wind conditions and wildfire smoke dispersion for downtown Montréal. 23rd Annual Student Conference (within 104th American Meteorological Society Annual Meeting). 28 January–1 February 2024. Baltimore, Md, United States.
- P9. Britton K\*, Romanic D**. 2023. User-friendly interface of analytical models of downburst outflows. Undergraduate and graduate research presentation events. Department of Atmospheric and Oceanic Sciences, McGill University, Montreal, Qc, Canada
- P8. Romanic D, Bouchard R\***. 2022. A Monte Carlo model of tornado hazard to wind turbines in Germany. Undergraduate and graduate research presentation events. Department of Atmospheric and Oceanic Sciences, McGill University, Montreal, Qc, Canada
- P7. Romanic D, Refan M, Wu C-H, Michel G**. 2016. Oklahoma tornado loss model. C4 CatIQ Conference. Toronto, On, Canada.
- P6. Parvu D, Romanic D, Kamran S, Hangan H**. 2014. WindEEE Dome. Global Cities Summit, 15 May, 2014. Toronto, On, Canada.
- P5. Parvu D, Romanic D, Kamran S, Hangan H**. 2014. WindEEE Engineering. Global Cities Summit, 15 May, 2014. Toronto, On, Canada.
- P4. Parvu D, Romanic D, Kamran S, Hangan H**. 2014. WindEEE Energy. Global Cities Summit, 15 May, 2014. Toronto, On, Canada.
- P3. Parvu D, Romanic D, Kamran S, Hangan H**. 2014. WindEEE Environment. Global Cities Summit, 15 May, 2014. Toronto, On, Canada.

- P2.** Rasouli A, **Romanic D**, Hangan H. Jubayer C. 2014. Sustainable analysis for an urban block: wind energy production. 6. International Symposium on Computational Wind Engineering, 8–12 June, 2014. Hamburg, Germany.
- P1.** **Romanic D**, Rasouli A, Hangan H. 2013. WindEEE and new aspects in urban wind resource assessment. CanWEA 2013 Annual Conference and Exhibition, 7–9 October, 2013. Toronto, On, Canada