GERAD ANNUAL REPORT

2022-2023

GERAD

GROUP FOR RESEARCH
IN DECISION ANALYSIS

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MESSAGE FROM THE **DIRECTOR**

Olivier Bahn
GERAD Director

It is my pleasure as the GERAD Director to present our 2022–2023 Annual Report.

Two new members joined GERAD this year: Dena Firoozi (HEC Montréal) and Samira Keivanpour (Polytechnique Montréal). Claudio Contardo (Concordia University) returned to a regular member status. We also welcomed three new associate members: Hatem Ben Amor (IBS Software/ADOPT), Youssef Diouane (Polytechnique Montréal), and Rachid Hassani (IREQ).

Among the highlights of 2022–2023 (p. 13), I want to proudly point out that several GERAD members, along with researchers from other FRQNT strategic clusters, collaborated in creating the Biofood Research and Innovation Centre, which received $3M in FRQNT funding. I also want to call attention to the scientific excellence of our members once again this year, which stands out in the indicators presented in this report, particularly these: the number of students (graduated and under supervision), which rose slightly compared to the previous year (p. 12); 15 of our members listed in a Research.com ranking of the world's top 1,000 scientists (p. 13) and 17 of our members in a ranking by Mendeley (Elsevier) of the most influential scientists in the world (p. 18); awards and distinctions received by our members (pp. 15–17) and by our students (p. 18); the number of grants received, also higher than the previous year (p. 20); and our publications and scientific activities (p. 21).

In closing, I'd like to express my gratitude on behalf of the entire GERAD community. First, I want to thank the following very warmly: the FRQNT (which gives us a strategic cluster grant); HEC Montréal, Polytechnique Montréal, McGill University and UQÀM, which sponsor and financially support GERAD; and IVADO and several active research chairs at GERAD that also contribute financially to the maintenance of our research infrastructure. Next, I would like to thank our partners in industry that place their trust in our members' expertise. And naturally, I want to thank all the GERAD members, who actively involve themselves in creating an environment that's welcoming and stimulating for research. And last but not least, I'd like to thank our administrative and technical staff for their professionalism and for the essential support they provide the entire GERAD community.

Enjoy your reading!

Olivier Bahn

GERAD
IN BREF

Created in 1979, GERAD is an inter-university research centre that brings together specialists in data and decision sciences, computer science, applied mathematics and mathematical engineering. These scientists come mainly from HEC Montréal, Polytechnique Montréal, McGill University and the Université du Québec à Montréal.

73 regular members from Quebec universities

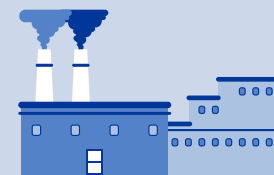**113** research professionals and postdoctoral researchers
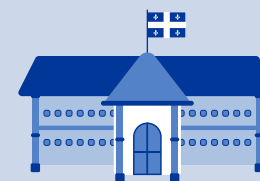
over $38M in grants and projects

110 members

747 students

ABOUT 140 partners

114 research activities
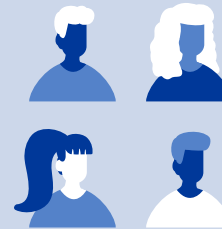
367 scientific publications

14 Quebec universities

GERAD'S MISSION:

To develop the mathematics of decision-making in all its forms in complex systems – be they technological, commercial or economic – and upstream of decision-making, to develop modelling based on statistics, simulation and data valuation

To train highly qualified personnel in the above fields, promoting equity, diversity and inclusion
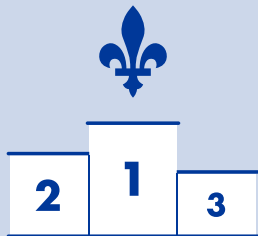
To bring university researchers together with industry, with a view to carrying out large-scale research and development projects and to contribute to the international influence of Quebec research

To have a significant impact on society through scientific innovation, the transfer of know-how in important sectors of the economy and the development of decision-making tools

FUNDAMENTAL RESEARCH

APPLICATIONS

GERAD's scientific program is based on **four research axes:**

GERAD doesn't only tackle theoretical and methodological developments along these four research axes, in fact, one of its defining characteristics is that it deploys these methods in the following **broad fields of application.**

1 Data valuation for decision-making

2 Decision support made in complex systems

3 Decision support made under uncertainty

4 Real-time decision support

1 Economy and finance

2 Energy, environment and natural resources

3 Smart infrastructures

4 Engineering

5 Smart logistics

6 Marketing

7 Health

BOARD OF DIRECTORS

Caroline Aubé
Director of the Research and Knowledge
Transfer Office

HEC Montréal

Olivier Bahn
GERAD Director and Chairman of the Board

HEC Montréal

Roussos Dimitrakopoulos
Professor; Member Representative

McGill University

Olivier Grenier
Director of the Research Office/Centre for
Technological Development

Polytechnique Montréal

Patrick Jeandroz
Head of Expertise – Data Science and
High-Performance Computing; Industry
Representative

IREQ

Kristina Öhrvall
Director, Strategic Initiatives

McGill University

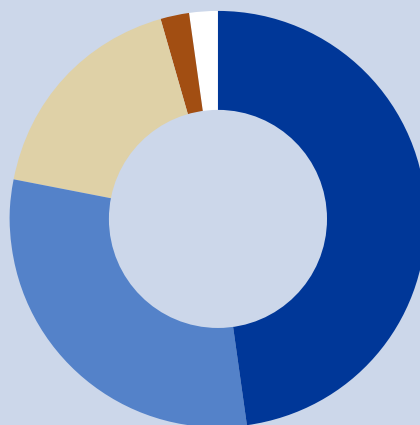**Jean-Pierre Richer**
Director of the Research and Creation Office

UQAM

OUR MEMBERS

EVOLUTION OF OUR MEMBERSHIP

	2019-20	2020-21	2021-22	2022-23
Regular members	62	69	73	73
Associated members	32	32	34	33
Honorary members	4	3	3	2
Visiting members	4	2	1	2

DISTRIBUTION OF OUR ASSOCIATED MEMBERS

23 North America
16 Quebec
7 Europe
2 Asia
1 South America
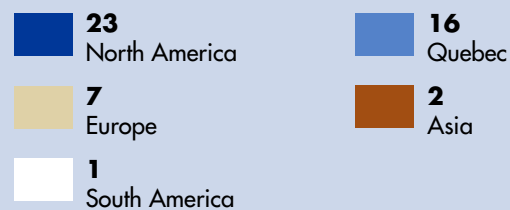
REGULAR MEMBERS BY INSTITUTION

Institution	Count
HEC Montréal	22
Polytechnique Montréal	20
McGill University	15
UQAM	6
Concordia University	3
Université de Montréal	2
UQAC	2
UQAR	2
Université Laval	1
Université de Sherbrooke	1
UQAT	1
ÉTS	1
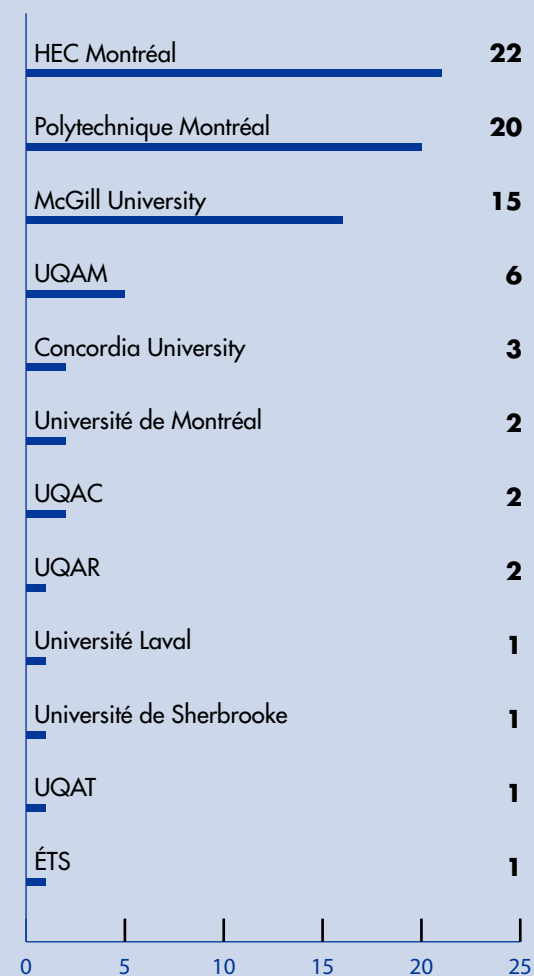
CHAIR HOLDERS AT GERAD

Yossiri Adulyasak
Canada Research Chair in Supply Chain Analytics

Loubna Benabbou
Research Chair in Artificial Intelligence for Digital, Resilient, Agile and Sustainable Supply Chains

Leandro C. Coelho
Canada Research Chair in Integrated Logistics

Maxime Cohen
Scale AI Chair in Data Science for Retail
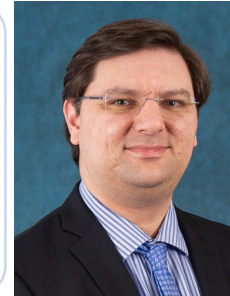
Jean-François Cordeau
Chair in Logistics and Transportation

Erick Delage
Canada Research Chair in Decision Making Under Uncertainty

Roussos Dimitrakopoulos
Canada Research Chair in Sustainable Mineral Resource Development and Optimization Under Uncertainty

Christian Genest
Canada Research Chair in Stochastic Dependence Modeling

Raf Jans
Chair in Supply Chain Operations Planning

Andrea Lodi
Canada Excellence Research Chair in Data Science for Real-Time Decision-Making

Carolina Osorio
Scale AI Research Chair in Artificial Intelligence for Urban Mobility and Logistics

Georges Zaccour
Chair in Game Theory and Management

MEMBERS OF THE
ROYAL SOCIETY OF CANADA (RSC)

Michèle Breton

Peter E. Caines

Erick Delage

Jacques Desrosiers

Roussos Dimitrakopoulos

Christian Genest

Pierre Hansen

Gilbert Laporte

Saibal Ray

Georges Zaccour

COMPOSITION OF THE GERAD

110
Members

359
PhD students

388
MSc students

10
Technical and administrative staff

54
Trainees

98
Postdoctoral fellows

22
Research professionnals
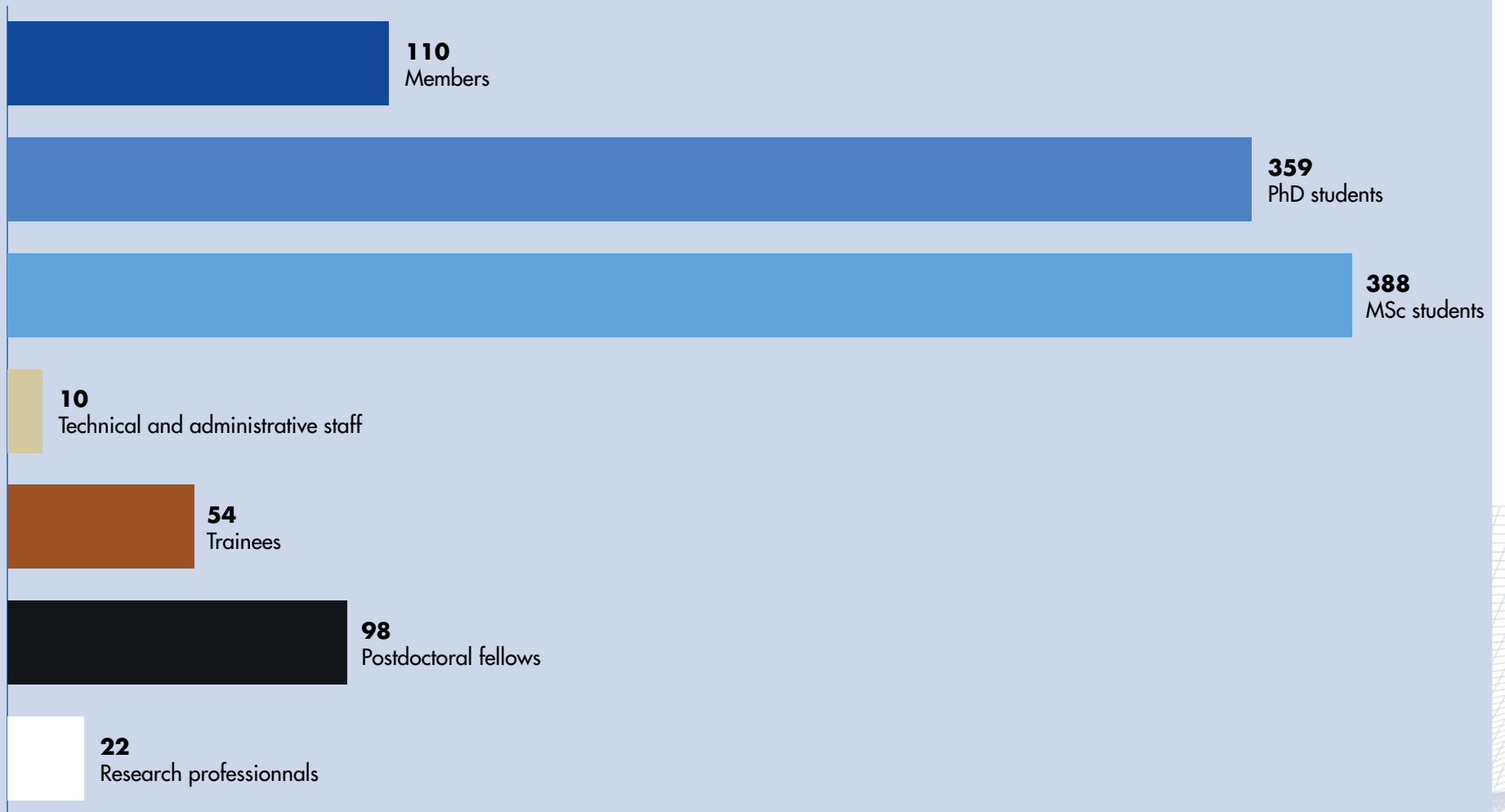
STUDENTS

STUDENTS ENROLLED AND GRADUATES BY UNIVERSITY

- **26%** HEC Montréal
- **29%** Polytechnique Montréal
- **16%** McGill University
- **4%** UQAM
- **2%** Université de Montréal
- **5%** Concordia University
- **2%** Université Laval
- **1%** ÉTS
- **15%** Others
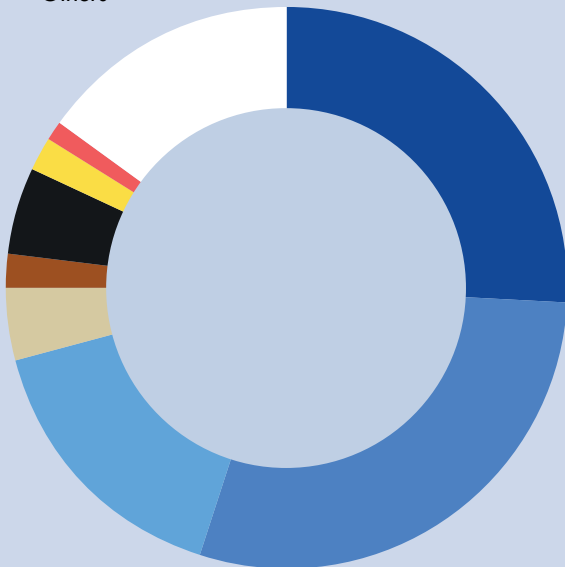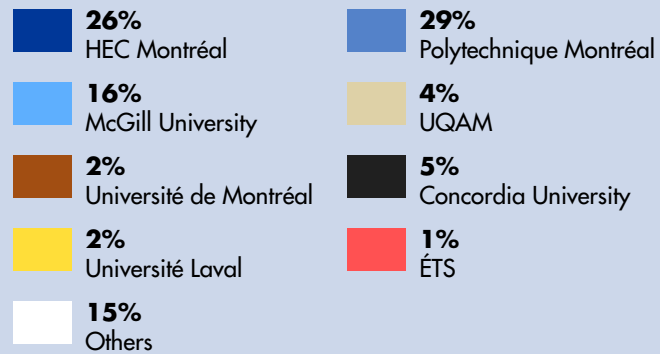
BREAKDOWN BY LEVEL

	2019-20	2020-21	2021-22	2022-23
MSc graduates	132	123	133	**121**
MSc enrolled	200	192	234	**256**
PhD graduates	29	44	50	**34**
PhD enrolled	228	277	301	**311**

2019-2020   2020-2021   2021-2022   2022-2023
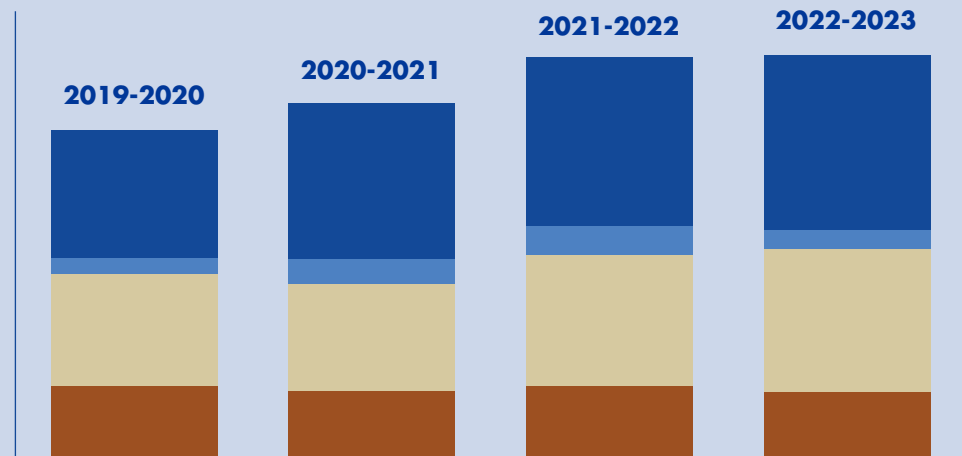
HIGHLIGHTS
OF THE YEAR

On October 7, 2022, we learned with regret of the death of Kathryn Brenda MacGibbon, a GERAD member for over 25 years and retired professor in UQAM's Mathematics Department.

GERAD has been awarded a new FRQNT grant as a strategic cluster. We received the maximum funding available for the program, i.e. $500 k/year until 2028.

Loubna Benabbou has been awarded the Research Chair in Artificial Intelligence for Digital, Resilient, Agile and Sustainable Supply Chains at UQTR.

GERAD participated in the creation of the Biofood Research and Innovation Center, which received $3M in funding. Among the researchers involved, Olivier Bahn, GERAD Director, is responsible for the decarbonization workstream. GERAD members Franklin Djeumou Fomeni, UQAM, and Jérôme Le Ny, Polytechnique Montréal, also contributed to the creation.

A GERAD team was a finalist for the IFORS Prize for OR in Development 2023. The team, made up of Issmail El Hallaoui, François Soumis, El Mehdi Er Raqabi and Ahmed Beljadid, was one of the six finalists with their project "OCP optimizes its supply chain for Africa". The country represented was Morocco and their Moroccan partners are the OCP Group and UM6P University.

Michel Gamache, Professor at Polytechnique Montréal, received a $1.65 million grant from NSERC's Collaborative Research and Training Experience program (CREATE) for his Intelligent and Autonomous Mine (MIA).

Mathieu Boudreault, Professor at UQAM, will work in collaboration with Retraite Québec and Professor Jean-François Bégin of Simon Fraser University in British Columbia on a project entitled "The Impact of Climate Change on the Long-Term Sustainability of Public and Private Pension Plans". This project is funded with $160,000 under the NSERC Alliance program.

Antoine Legrain and François Soumis, also with the collaboration of Leandro C. Coelho and Brunilde Sansò, obtained a FRQNT partnership grant in the amount of $306K to analyze models of multimodal platforms for collaboration and synchronization of mobility services.

Research.com has published the 2022 edition of its ranking of the top 1,000 scientists in several fields. Here are the 15 GERAD members listed.

In the field of mathematics:

Charles Audet, Jean-François Cordeau, Guy Desaulniers, Jacques Desrosiers, Roussos Dimitrakopoulos, Christian Genest, Pierre Hansen, Alain Hertz, Brigitte Jaumard, Gilbert Laporte, Pierre L'Ecuyer, Andrea Lodi, Gilles Savard, François Soumis

In the field of computer science:

Pierre Hansen, Alain Hertz, Gilbert Laporte, Andrea Lodi, Gilles Savard

In the field of economics and finance:

Georges Zaccour

In the field of electronics and electrical engineering:

Peter Caines

In the field of engineering and technology:

Charles Audet, Jean-François Cordeau, Guy Desaulniers, Jacques Desrosiers, Roussos Dimitrakopoulos, François Soumis

OUR MEMBRES
IN THE MEDIA

"Cybersécurité et IA: les formations en technologies en vogue," Pierre Baptiste, Polytechnique Montréal. (interview published in *Les Affaires*, June 2022)

"Stores remained stocked with AC units, fans despite sweltering temperatures," Amir Ardestani-Jaafari, The University of British Columbia. (article published on Daily Hive, July 2022)

"Distributor offers $10,000 bonus to combat trucker shortage in Quebec," Mehmet Gumus, McGill University. (interview on CTV News, September 2022)

"Les importations canadiennes de nickel russe explosent," Leandro C. Coelho, Université Laval. (interview published in *Les Affaires*, November 2022)

"Formation continue FSA ULavaL : la logistique et le transport durable," Leandro C. Coelho, Université Laval. (interview published in *Le Soleil*, November 2022)

"L'IA, une présence aussi dans la région de Québec," Loubna Benabbou, UQTR. (article published in *La Presse*, November 2022)

"Medication Treatment for Addiction Is Shorter for Black and Hispanic Patients, Study Finds," Alton W. Russell, McGill University. (interview in the *New York Times*, November 2022)

"Les bouches d'égout, puissants émetteurs de GES," Mary Kang, McGill University. (article published in *La Presse*, December 2022)

"Methane from manholes and historic landfills: significant sources of gas go unrecognized," Mary Kang, McGill University. (article published on McGill Newsroom, December 2022)

"Excess inventory encourages steeper discounts in Black Friday sales," Maxime Cohen, McGill University. (interview on CTV News, December 2022)

"Des pannes plus longues qu'ailleurs chez Hydro-Québec," François Bouffard, McGill University. (interview on TVA Nouvelles, January 2023)

"AABB Foundation grant recipient's research could improve donor safety and blood supply with risk-based iron recovery periods," Alton W. Russell, McGill University. (interview published in the AABB website, January 2023)

"Accélérer la numérisation des chaînes d'approvisionnement," Loubna Benabbou, UQTR. (article published in *Le Devoir*, February 2023)

"Anticiper les besoins d'un réseau invisible," Brunilde Sansò, Polytechnique Montréal. (interview published in Québec Science, February 2023)

"Voici comment Hydro-Québec se prépare pour le froid polaire," François Bouffard, McGill University. (interview published in *Journal de Montréal*, February 2023)

"En route vers un système de transport maritime intelligent," Loubna Benabbou, UQTR. (interview published on *ICI Radio-Canada*, March 2023)

"La livraison, une problématique nord-côtière," Leandro C. Coelho, Université Laval. (interview published in Le Nord-Côtier, March 2023)

"Des pannes d'électricité prolongées soulèvent des questions sur la résilience du réseau électrique québécois ," François Bouffard, McGill University. (interview published in *La Presse Canadienne*, April 2023)

"Et si l'intelligence artificielle pouvait veiller sur les diabétiques?," Monia Rekik, Université Laval. (interview published on ULaval Nouvelles, April 2023)

"La fiabilité du réseau de télécommunications en cas de pannes," Brunilde Sansò, Polytechnique Montréal. (radio interview on Le 15-18, Radio-Canada, April 2023)

"Rendre les chaînes d'approvisionnement plus performantes," Loubna Benabbou, UQTR. (article published in *Le Soleil*, May 2023)

AWARDS AND HONOURS

Samira Abbasgholizadeh-Rahimi

Marjorie Bowman and Robert Choplin New Investigator Award, North American Primary Care Research Group (NAPCRG), 2022

Vice President, Canadian Operational Research Society, 2022-2023

Amir Ardestani-Jaafari

2023 Golden Apple Award for his dedication to helping students find value in the learning process, University of British Columbia, 2023

David Ardia

Award for Teaching Excellence, HEC Montréal, 2022

Okan Arslan, Jean-François Cordeau & Raf Jans

Best Application Paper Award, International Federation of Automatic Control (IFAC), 2022 (for the paper entitled "A vehicle routing problem with time windows and workload balancing for COVID-19 testers: A case study")

Charles Audet

Winner of the 2022 Support for the Organization of International Congresses competition, Palais des Congrès, FRQ and Ambassadors Club, 2022

Charles Audet, Jean Bigeon & Sébastien Le Digabel

L'article « Performance indicators in multiobjective optimization » parmi les plus cités du *European Journal of Operational Research* publiés depuis 2020

Michèle Breton

Jean-Marie Toulouse Engagement Award, HEC Montréal, 2022

Marilène Cherkesly

Emerging Research Faculty Award, Université du Québec à Montréal, 2022

Leandro C. Coelho

2nd place in the Practice Prize, Canadian Operational Research Society, 2023 (for the project "Real-time management of traffic lights - improving mobility and decreasing greenhouse gas emissions")

Maxime Cohen

RETHINK Retail's Top Retail Influencers, 2023

Young Scholar Prize, Manufacturing and Service Operations Management Society, 2022

Jean-François Cordeau

1st place in the Practice Prize, Canadian Operational Research Society, 2023 (for the project "Weather Routing for Maritime Vessels")

Guy Desaulniers

Transportation Science Meritous Award 2022 as a reviewer, *INFORMS Transportation Science*

Transportation Science Meritorious Award 2022 as an associate editor, *INFORMS Transportation Science*

Guy Desaulniers & Andrea Lodi

Best Paper Award for 2021, *INFORMS Transportation Science*, 2022 (for the paper entitled "Machine-learning-based column selection for column generation")

AWARDS AND HONOURS

Roussos Dimitrakopoulos

Elected Fellow, Royal Society of Canada, 2022

Yichuan Daniel Ding

Desautels Faculty Scholar Award, McGill University, 2022

Anissa Frini

Pascal-Parent Distinction, Université du Québec à Rimouski, 2022

Geneviève Gauthier

Best Discussion Award, CDI 2022, 11th Conference on derivatives, Canadian Derivatives Institute, 2022

Alain Hertz

Meritas Award for best graduate teacher in mathematics, Polytechnique Montréal, 2023

Jonathan Jalbert

AME20's Best Paper Award, Transportation Research Board Standing Committee, 2023 (the paper entitled "Going the Distance: Gender Differences in Travel in Montréal, Canada")

Brigitte Jaumard

Best Paper Award , IEEE International Symposium on Measurements & Networking, 2022 (the paper entitled "A Dynamic Traffic Generator for Elastic 5G Network Slicing")

1st rank at Graph Neural Networking (GNN) Challenge, Barcelona Neural Networking Center, Polytechnic University of Catalonia, 2022

Michael Kokkolaras

2021 Editor's Choice Paper Award in *Journal of Mechanical Design* in the category of design methods, 2022 (for the paper entitled "Scalable Set-Based Design Optimization and Remanufacturing for Meeting Changing Requirements")

Gilbert Laporte

Euro Gold Medal, The Association of European Operational Research Societies, 2022

Elected Fellow, Asia-Pacific Artificial Intelligence Association, 2023

Goodeve Medal 2022 for the best paper published in the *Journal of the Operational Research Society* in 2021 ("Reorganizing Postal Collections in Urban Areas as a Result of Declining Mail Volumes – A Case Study in Bologna")

Best applied contribution in Operations Research, SEIO-Fondation BBVA, 2022 (for the paper entitled "Optimizing Access to 5 Drinking Water in Remote Areas. Application to Nepal")

The article "A concise guide to existing and emerging vehicle routing problem variants" is one of the most cited in *European Journal of Operational Research* published since 2020

Gilbert Laporte & Maximilian Schiffer

Facility Logistics Publication Award, *INFORMS Transportation Science*, 2022 (for the paper entitled "Optimal Picking Policies in E-Commerce Warehouses")

Andrea Lodi

The article "Machine learning for combinatorial optimization: A methodological tour d'horizon" is one of the most cited in *European Journal of Operational Research* published since 2020

Marco E. Lübbecke

2022 Teaching Award, RWTH Aachen University, 2023

Jean-François Plante

Innovator of the Year Award, SAS Institute, Cortex, 2022

AWARDS AND HONOURS

Wei Qi

3rd place in the best paper award competition, 2022 Digital Supply Chain and Supplier Diversity Conference (for the paper entitled "Crowdsourcing Electric Mobility for Omni-Sharing Distributed Energy Resources")

Best Publication in Energy, *INFORMS*, 2022 (for the paper entitled "Charging an Electric Vehicle Sharing Fleet")

Winner of the 2021 MSOM Data Driven Research Challenge, INFORMS, 2022

2nd place winner, INFORMS Service Science Best Cluster Paper Award, 2022 (for the paper entitled "Stall Economy: The Value of Mobility in Retail on Wheels")

Saibal Ray

RETHINK Retail's Top Retail Influencers, 2023

Maximilian Schiffer

Meritorious Service Award, INFORMS Transportation Science, 2022

François Soumis

Award for Excellence in Research and Innovation, Polytechnique Montréal, 2023

Xiaozhe Wang

Best Paper Award, 2022 IEEE PESGM (for the paper entitled "A Sparse Polynomial Chaos Expansion-Based Method for Probabilistic Transient Stability Assessment and Enhancement")

These 17 GERAD members are among the most influential scientists in the world in various fields of research, according to a study by Mendeley (Elsevier) published in 2022.

- **Charles Audet**
- **François Bouffard**
- **Peter E. Caines**
- **Leandro C. Coelho**
- **Jean-François Cordeau**
- **Hanane Dagdougui**
- **Guy Desaulniers**
- **Roussos Dimitrakopoulos**
- **Christian Genest**
- **Pierre Hansen**
- **Alain Haurie**
- **Alain Hertz**
- **Minyi Huang**
- **Brigitte Jaumard**
- **Gilbert Laporte**
- **Pierre L'Ecuyer**
- **Andrea Lodi**

GERAD AWARDED $141,835 IN SCHOLARSHIPS AND PRIZES

STUDENTS WHO OBTAINED SCHOLARSHIPS

FRQ

Abdelhakim Abdellaoui (Polytechnique Montréal)
Doctoral research scholarship, FRQNT

Jie Gao (HEC Montréal)
Postdoctoral research scholarship, FRQSC

Edward Hallé-Hannan (Polytechnique Montréal)
Doctoral research scholarship, FRQNT

Gabriel Jarry-Bolduc (Polytechnique Montréal)
Postdoctoral research scholarship, FRQNT

Rong-Peng Liu (McGill University)
Postdoctoral research scholarship, FRQNT

Sawsan Sayed (McGill University)
Doctoral research scholarship, FRQNT

Loreley Sepho (Polytechnique Montréal)
Master's research scholarship, FRQNT

Maedeh Sharbaf (HEC Montréal)
Doctoral research scholarship, FRQNT

Cesare Spinoso-Di Piano (McGill University)
Master's research scholarship, FRQNT

Qihua Zhong (HEC Montréal)
Doctoral research scholarship, FRQNT

NSERC

Massil Ait Abdeslan (Polytechnique Montréal)
Undergraduate student research award

Arnaud Delage-Reid (Polytechnique Montréal)
Undergraduate student research award

Jason Greige (Polytechnique Montréal)
Undergraduate student research award

Xavier Lebeuf (Polytechnique Montréal)
Master's scholarship

Scott Seymour (Université McGill)
Doctoral scholarship

GERAD

11 scholarships for undergraduate foreign trainees awarded

6 conference expenses scholarships awarded

Elahe Amiri (Polytechnique Montréal)
Co-supervised Graduate Research Grant

Claudia Bongiovanni (HEC Montréal)
postdoctoral fellowship

Romain Couderc (Polytechnique Montréal)
Co-supervised Graduate Research Grant

Allyson Fernandes da Costa Silva (Université Laval)
Excellence scholarship for the best doctoral thesis 2022

Dorian Dumez (HEC Montréal)
postdoctoral fellowship

Eliass Fennich (Université Laval)
Co-supervised Graduate Research Grant

Randa Ouchene (UQAC)
Co-supervised Graduate Research Grant

Fatemeh Rajabi (Polytechnique Montréal)
Co-supervised Graduate Research Grant

G. Selin Savaşkan (HEC Montréal)
postdoctoral fellowship

Others

Ilhem Bousbiat (McGill University)
Gordon Phillips Fellowship, McGill University

Berk Bozkurt (McGill University)
MSc Excellence Scholarship, IVADO
Graduate Excellence Fellowship, McGill University

Rui Fan (HEC Montréal)
Master's Excellence Scholarship, Fin-ML-CREATE program, NSERC

Reihaneh Ghoroghchian (McGill University)
Graduate Excellence Fellowship, McGill University

Yasmin Khalor (HEC Montréal)
Fin-ML scholarship, CREATE program, NSERC

Paul Kelendji (HEC Montréal)
Master's Excellence Scholarship, Fin-ML-CREATE program, NSERC

Edwin Meriaux (McGill University)
Graduate Excellence Fellowship, McGill University

Milka Nyariro (McGill University)
Third Century Postdoctoral Research Fellowship, McGill University

Mohamed Saidi (University of Carthage)
Globalink Research Award, MITACS

Gauri Sharma (Université McGill)
Master's Scholarship, OBVIA

Charles Truchon (HEC Montréal)
Fin-ML scholarship, CREATE program, NSERC

Student awards

Cansu Alakus (HEC Montréal)
Best Dissertation Awards for 2022, HEC Montréal

Nymisha Bandi (McGill University)
2nd place at the College of Behavior in Operations Management Junior Scholar Paper Competition, Production & Operations Management Society (POMS), 2023 (for the paper entitled "Incentivizing Healthy Food Choices Using Add-on Bundling: A Field Experiment")

Lauren Bowman (McGill University)
Best Student Oral Presentation, GeoConvention 2022

Rafael Ajudarte de Campos (Université Laval)
Ex aequo prize for best student presentation, OR/MS Scientific Presenting Competition, CORS/Optimization Days, 2023

Khaoula Chehbouni (HEC Montréal)
2022 Award for the Best Master's Thesis, HEC Montréal

Gabriele Dragotto (Polytechnique Montréal)
2022 prize for the Ph.D. thesis, Department of Mathematics and Industrial Engineering, Polytechnique Montréal

Mouad Morabit (Polytechnique Montréal)
Best Paper Award for 2021, INFORMS Transportation Science (for the paper entitled "A. Machine-learning-based column selection for column generation")

Mohammad Mosaffa (University of British Columbia)
3rd Best Research Paper Award, POMS International Conference 2022 (for the paper entitled "The Value of Text for Waiting Time Prediction using deep learning: A Repair Shop Case Study")

Mehran Poursoltani (HEC Montréal)
2022 Esdras-Minville Award, HEC Montréal

Vincent Taboga (Polytechnique Montréal)
Jury's first prize at the ACFAS national final of the Three Minute Thesis challenge, 2023

Yinong Yang (Polytechnique Montréal)
1st prize of the Women in Data Hackathon, Air Canada

Hosain Zaman (HEC Montréal)
Best Dissertation Awards for 2021, HEC Montréal

FUNDING AND GRANTS

GERAD RECEIVED THE FOLLOWING IN INFRASTRUCTURE GRANTS:

$560,000
of the FRQNT Strategic Clusters program

$200,000
from IVADO

$205,000
from academic institutions

$55,000
from research chairs and professors

$38 MILLION IN RESEARCH GRANTS

*Amount of the grants received by GERAD members. Annual amounts are the total grant divided by the duration of the grant (number of years). By weighting by the number of researchers on a project by those who are GERAD members, the amount that is directly tied to members is approximately $21,3 million annually.

- **$14,349,070** NSERC
- **$4,297,463** Research chairs
- **$3,623,591** MITACS
- **$582,597** Contracts
- **$1,564,663** IVADO
- **$1,125,426** FRQ
- **$408,177** Academic institutions
- **$350,592** SSHRC
- **$209,299** Scholarships
- **$10,487,510** Others

- $2,9 million in Discovery Grants this year
- Over $3,8 million in NSERC research and development projects
- $3,6 million in MITACS projects
- 26 NSERC Alliance Grants for a total of $6,2 million

- $707K in three NSERC CREATE grants
- $910K for three projects under the Innovation for Defence Excellence and Security (IDEeS) program, Department of National Defence
- $350K for COSMO Stochastic Mine Planning Laboratory

PUBLICATIONS

260

published articles

86

papers in refereed conference proceedings
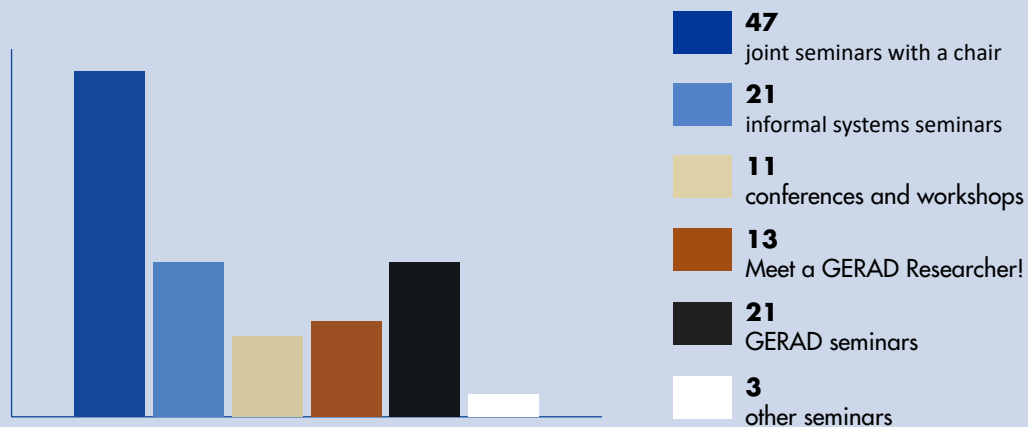
21

books and chapters

64

Cahiers du GERAD and revisions

1

GERAD Newsletter

ORGANIZED SCIENTIFIC ACTIVITIES BY GERAD

ACTIVITIES IN 2022–2023

- **47** joint seminars with a chair
- **21** informal systems seminars
- **11** conferences and workshops
- **13** Meet a GERAD Researcher!
- **21** GERAD seminars
- **3** other seminars

WORKSHOPS

- 2 LaTeX workshops
- Workshop on Dynamic Games and Applications
- Workshop in Memory of Professor Ngo Van Long
- Welcome Session for New Students and Members
- Twelfth Montreal Industrial Problem Solving Workshop
- Contextual Optimization Workshop
- Parallel computing and GPU programming with Julia

CONFERENCE

- Column Generation 2023
- 19th International Symposium on Dynamic Games and Applications
- Digital intelligence at the service of health systems

GERAD

GROUP FOR RESEARCH
IN DECISION ANALYSIS

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