CURRICULUM VITAE
Pierre-Marc Jodoin

Table of content

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Personal website: jodoin.github.io
Lab: vitalab.github.io
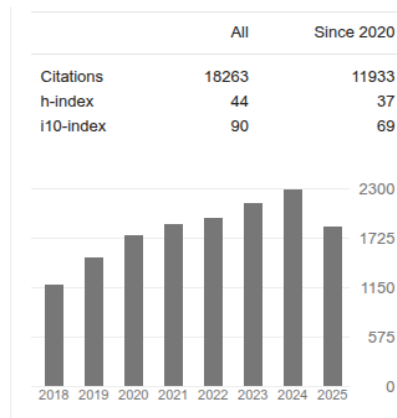Publication list: vitalab.github.io/publications

RESEARCH AREAS	EDUCATION	
Cardiac imaging	Associate research(Post.Doc)	2007 - 2008
Brain imaging	Electrical Engineering	
MRI and Ultrasound imaging	Boston University, USA	
Segmentation		
Data harmonization	Ph.D. Computer Science	2002 - 2007
Uncertainty prediction	University of Montreal, CANADA	
White matter analysis		
	M.Sc. Computer Science	2000 - 2002
	University of Montreal , CANADA	
	B.Sc. Computer Engineering	1995 – 2000
	Montreal Polytechnique School, CANADA	

BIBLIOMETRIC INDICATORS

	All	Since 2020
Citations	18263	11933
h-index	44	37
i10-index	90	69

Stanford/Elsevier's World's Top 2% Scientist.[1]

Indicators provided for descriptive purposes only, as publishing practices vary across subfields.

EMPLOYMENT AND PROFESSIONAL RECORD

Full Professor	2015 - now
Computer Science Department, University of Sherbrooke	
Associate Professor	2011 - 2015
Computer Science Department, University of Sherbrooke	

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[1] https://topresearcherslist.com/

Assistant Professor	2008 - 2011
Computer Science Department, University of Sherbrooke	
Director of Computer Science Programs at the University of Sherbrooke	2023 – now
Computer Science Department, University of Sherbrooke	
Co-Director of the "Axe d'imagerie médicale"	2019 - now
Research center of the Sherbrooke University Health center	
Co-Director and co-founder	2019 - 2023
Sherbrooke Artificial Intelligence Service	
Co-founder, scientific AI advisor and member of the board of advisors	2011 - now
Imeka.ca inc	
Chief Technology Officer	2021 - 2022
Imeka.ca inc	
Co-Director and co-founder	2009 - 2019
Sherbrooke Medical Image Processing Service (PAVI)	
Associate editor	2013 - 2017
IEEE transactions on image processing	
Invited editor	2013 - 2015
journal Pattern Recognition - Elsevier	
Invited editor	2013 - 2015
journal of Signal Processing - Elsevier	
Software developer	1998 - 1999
Discreet logic (Autodesk)	
Software developer	1997
Ericsson	

RECOGNITIONS

Best doctoral thesis award in medicine and health sciences	2025
Université de Sherbrooke	
Awardee: Nathan Painchaud, Ph.D. under my supervision	
Best oral paper	2025
International Society for Tractography Conference	
Paper : *BundleParc: automatic bundle parcellation in tumor data*	
Best paper award	2025
Journal of imaging	
Paper : *GANs for Medical Image Synthesis: An Empirical Study, Journal of Imaging*	
World's Top 2% scientist	2025
Stanford/Elsevier's	
World's Top 2% scientist	2024
Stanford/Elsevier's	
Louis-Berlinguet "Relève étoile" Award	2023
Fonds de recherche du Québec - Nature et technologies (FRQNT)	
Provincial award for high-impact publications by young researchers	
Awardee: Nathan Painchaud, Ph.D. under my supervision	
Discovery of the year	2023
Centre de recherche clinique du CHUS	
Distinction for my work on the development of AI models for white matter analysis	

World's Top 2% scientist	2023
Stanford/Elsevier's	
Award for Outstanding Innovation	2022
MITACS	
Best MITACS project in Canada by a Master student	
Awardee: Thierry Judge, M.Sc under my supervision	
World's Top 2% scientist	2022
Stanford/Elsevier's	
World's Top 2% scientist	2021
Stanford/Elsevier's	
Third place at the International Automatic Cardiac Diagnostic Challenge	2017
MICCAI	
Exceptional mention for excellency of research	2015
Université de Sherbrooke	
Honor given to the top 5 researchers of the year. For my work on AI for surveillance applications.	
Finalist for best scientific achievement "Catégorie relève étudiante"	2015
OCTAS	
Awards to top computer science project in Québec, both from the academia and the industry	
Nominee : Michael Bernier for his work in Cardiology, M.Sc under my supervision.	
Winner of the international challenge on Endocardial 3D Ultrasound Segmentation	2014
MICCAI	
Winner for best scientific achievement "Catégorie relève étudiante"	2012
OCTAS	
Awards to top computer science project in Québec, both from the academia and the industry	
Awardee : Nil Goyette for his work on motion detection, M.Sc under my supervision.	
Finalist for best scientific achievement "Catégorie relève étudiante"	2009
OCTAS	
Awards to top computer science project in Québec, both from the academia and the industry	
Nominees : Benoit Gagnon, Francis Bertrand, Sébastien Bérubé for their work on the *muSynt* mixing table, B.Sc under my supervision	
Award of excellence for doctoral thesis	2007
Université de Montréal	
Award given to the top Ph.D. theses of the year	
Distinction of excellence for the bachelor's degree in computer engineering	2000
École Polytechnique de Montréal	
Award given to the top 5% B.Sc graduates	

RESEARCH FUNDINGS[2]

Total funding :	**$ 3,169,172**	
Total PI :	**$ 1,688,583**	
Total co-PI :	**$ 939,089**	
Total collective :	**$ 541,500**	
Total allocated to Pr Jodoin's lab:	**$ 2,256,676**	

International Research Project (IRP) France-Canada (2025-2029) Fiabilisation et transparence des modèles d'intelligence artificielle en santé: application pour l'étude de maladies cardiaques et neuro-dégénératives	97,000	50%
Fonds France Canada pour la Recherche (FFCR) Nouvelles collaborations de recherche (2025-2029) Développement de méthodes de diagnostic et de pronostic de maladies neurodégénératives à l'aide de réseaux de neurones par graphe normatifs et explicatifs	$ 14,050	50%
MITACS – Accelerate (iCardio inc.) (2025-2028) Deep Learning Echocardiographic Image Analysis for the Assessment of Cardiac Pathologies	$ 240,000	100%
MITACS – Globalink (2025-2026) Développement de méthodes de diagnostic et de pronostic de maladies neurodégénératives à l'aide de réseaux de neurones par graphe normatifs et explicatifs	$ 12,000	100%
Compute Canada (2024-2026) Resource Allocation Competition	$ 64,000	25%
NSERC – Discovery Grant (2023-2028) Fully-automatic, self-corrective, and explainable echocardiographic image analysis	$ 205,000	100%
RBIQ (2023-2024) Création de la toute première base massive d'images échocardiographiques synthétiques pour l'entraînement et la validation d'algorithmes d'intelligence artificielle pour l'évaluation de la fonction cardiaque.	$ 7,000	100%
CQDM – FACS (2021-2024) The Acuity-Qc consortium: predicting and imaging drug action	$ 572,000	100%
MITACS – Accelerate (Ultromics inc) (2021-2022) Anatomical consistency and confidence estimation of cardiac segmentation of ultrasound images using variational auto-encoders	$ 60,000	100%
MITACS – Accelerate (Imeka inc.) (2020-2021) Deep harmonization method for diffusion MR brain images	$ 60,000	100%
RBIQ (2019-2021) Privacy-preserving continual learning for medical image analysis	$ 12,500	50%
CRCHUS - Strategic fund (2019-2020) Specialized hardware for the training of deep neural networks	$ 10,000	100%
NSERC – Discovery Grant (2018-2023) Model design for analyzing ultralow framerate surveillance videos	$ 205,000	100%
NSERC - Engage (UrtheCast) (2018) Development of deep segmentation methods applied to satellite imagery	$25,000	100%
MITACS – Accelerate (Miovision inc) (2017-2020) Deep learning methods for analyzing ultralow frame-rate traffic videos	$ 93,333	100%
FRQNT – Team project (2017 – 2020) Development of deep learning methods for the detection of brain tumor recurrence.	$ 161,589	40%

Nvidia (2016-2017) Convolutional neural networks applied to traffic analytic	$4,500	100%
NSERC - Engage (Autolog) (2016-2017) Automation and optimization of wood cutting for the forestry industry using deep learning techniques	$25,000	100%
NSERC - Engage (Miovision) (2016-2017) One-Shot Traffic Analytics	$25,000	100%
Centre d'imagerie moléculaire de Sherbrooke (2015-2021) Research center fund	$360,000	7%
NSERC Discovery Grant (2013-2018) Content analysis and anomaly detection for applications in video surveillance and medical imaging	$ 100,000	100%
FRQNT - CFQCU (2014-2018) Multimodal analysis of the heart and aorta in small animals	$50,000	100%
NSERC - Engage (Teasdale cognition inc) (2014-2015) Advanced methods for the statistical analysis of symptoms related to concussions	$25,000	100%
FRQNT - Team project (2013-2016) Fusion visible-infrarouge multiniveau pour l'analyse vidéo	$ 126,000	33%
Université de Sherbrooke - HQP recruitment fund (2012-2016) Machine learning methods for brain tumor segmentation	$ 42,700	100%
Université de Sherbrooke - PIFIR (2012-2016) CREI Research center fund	$ 117,500	9%
Université de Sherbrooke - Pilote study program (2012-2016) Segmentation de tumeurs cérébrales à partir d'images IRM	$10,000	100%
Accélérateur pour la création d'entreprises technologiques (2010-2011) Startup fund for Imeka inc.	$ 20,000	100%
MDEIE (Québec) - Soutien à des initiatives internationales de recherche (2009-2012) Détection automatique de comportements suspects par vidéo surveillance	$ 76,000	100%
Université de Sherbrooke (2009-2011) Fonds d'aménagement des laboratoires	$ 34,000	100%
NSERC Discovery grant (2008-2013) Active contours without level-sets	$ 85,000	100%
Université de Sherbrooke (2007-2012) Starting funds	$ 30,000	100%
Université de Sherbrooke - PIFIR (2007-2012) MOIVRE Research center funds	$ 200,000	10%

EVENT ORGANIZATION

Co-organizer of *Information Processing in Medical Imaging (IPMI)* conference	2027
Co-chair and speaker, *Deep learning for medical imaging summer school*	2026
Co-organizer and speaker, *Deep learning for medical imaging summer school*	2025
Co-chair and speaker, *Deep learning for medical imaging summer school*	2024
Co-organizer, *Academia meets Industry - Biomedical Imaging in Canada*, Conference	2023
Program Committee member, *Functional Imaging and Modeling of the Heart (FIMH)*	2023
Co-organizer, *Deep learning for medical imaging summer school*	2023
Co-chair and speaker, *Deep learning for medical imaging summer school*	2022
Co-organizer and speaker, *Deep learning for medical imaging summer school*	2021
Co-chair (challenges), *Medical Imaging and Deep Learning* (MIDL) conference	2020
Co-chair, *Deep learning for medical imaging summer school*	2020

Co-organizer and speaker, *Deep learning for medical imaging summer school*	2019
Area chair + Program committee member, MICCAI, Conference	2017
Co-chair, MICCAI - Automatic Cardiac Diagnostic Challenge (ACDC)	2017
Chairman, IEEE CVPR Traffic Surveillance Workshop and Challenge	2017
Co-chair, ICPR, Scene Background Modeling Contest, Workshop	2016
Co-chair Sherbrooke Workshop on Smart Environments (3rd Ed.),	2015
Chairman, IEEE CVPR Challenge on Change Detection (2nd Ed.)	2014
Chairman, Sherbrooke Workshop on Smart Environments (2nd Ed.)	2014
Chairman, Sherbrooke Workshop on Smart Environments	2013
Chairman, IEEE CVPR Challenge on Change Detection	2012
Session chair, Conférence de l'Association francophone pour le savoir (ACFAS)	2011
Session chair, International Conference on Image and Signal Processing	2010

CONTRIBUTION TO OPEN SCIENCE

PUBLIC DATASETS
TractoInferno [3]
Fully annotated brain dataset for training and testing brain fiber machine learning methods.

CAMUS (Cardiac Acquisitions for Multi-structure Ultrasound Segmentation) [4]
Dataset dedicated to the benchmarking of MRI cardiac segmentation software.

AC-DC (Automatic Cardiac Delineation Challenge) [5]
Dataset dedicated to the benchmarking of MRI cardiac segmentation software.

MIO-TCD (MIOvision Traffic Camera Dataset) [6]
Dataset dedicated to the localization and recognition of vehicles in real traffic images.

Scenebackgroundmodeling.net [7]
Dataset dedicated to the benchmarking of background estimation methods.

changedetection.net [8]
Dataset dedicated to benchmarking of background subtraction method.

CODE
github.com/scil-vital
github.com/vitalab

[3] P. Poulin, G. Theaud, F. Rheault, E. St-Onge, A. Bore, E. Renauld, L. de Beaumont, S. Guay. P-M Jodoin, M. Descoteaux (2022) TractoInferno: A large-scale, open-source, multi-site database for machine learning dMRI tractography, Nature, Scientific Data, 9, 725, p.1-32

[4] S. Leclerc, E Smistad, J Pedrosa, A Ostvik, F Espinosa, T. Espeland, E.A. Rye Berg, P-M. Jodoin, T. Grenier, C. Lartizien, J. Dhooge, L. Lovstakken, O. Bernard (2019) Deep convolutional network for 2-D echocardiographic segmentation based on an open large-scale patient database, IEEE transactions on Medical Imaging, 38(9), p.p.2198-2210;

[5] O. Bernard, A. Lalande, C. Zotti, [...], P-M Jodoin (2018) Deep Learning Techniques for Automatic MRI Cardiac Multi-structures Segmentation and Diagnosis: Is the Problem Solved?, IEEE transactions on Medical Imaging, 37(11), p.p.2514-2525

[6] Z. Luo, F.B.Charron, C.Lemaire, J.Konrad, S.Li, A.Mishra, A. Achkar, J. Eichel, P-M Jodoin (2018) MIO-TCD: A new benchmark dataset for vehicle classification and localization, IEEE Transactions on Image Processing, 27(10), p.5129-5141

[7] Jodoin P-M, Maddaelena L., Petrosino A., Wang Y. (2017) Extensive Benchmark and Survey of Background Modeling Methods, IEEE Transactions on Image Processing, 26(11), p.5244-5256;

[8] Goyette N, Jodoin P-M, Porikli F, Konrad J, Ishwar P. (2014) Novel Dataset for Change Detection Benchmarking, IEEE Transactions on Image Processing, 23(11), p.4663-4679;

HIGHLY QUALIFIED PERSONNEL [Co-]SUPERVISION

Total M.Sc. students since 2008: **19** (16 dir, 3 co-dir)
Total Ph.D students since 2008: **25** (5 dir, 20 co-dir)
Total PostDocs since 2008: **1**

Level	Subject	Student Name	Co-supervisor	Graduation
M.Sc	Reinforcement learning approaches with human feedback for white-matter tractography	Jeremi Lévesque	–	--
Ph.D.	Reinforcement learning for white-matter tractography	Antoine Théberge	Maxime Descoteaux	--
Ph.D.	Analysis of cardiac muscle deformation using deep learning on a very large-scale database	Thierry Judge	Olivier Bernard	--
Ph.D.	Deep learning methods to segment, simulate, and estimate motion and clinical echocardiographic metrics	Arnaud Judge	Olivier Bernard	--
Ph.D.	Late-gadolinium enhancement (LGE) cardiac MRI segmentation using diffusion models	Célia Gouja	Olivier Bernard	--
Ph.D.	Brain diffusion MRI data harmonization using Bayesian models and meta-normative modeling	Yoan David	–	--
Ph.D.	Development of diagnostic and prognostic methods for neurodegenerative diseases using normative and explainable graph neural networks	Baptiste Pierrard	Michael Sdika	--
Ph.D.	Generation of explainable medical reports from echocardiographic images and tabular patient data	Damien Djomby	–	--
Ph.D.	Deep Manifold Learning for Improved High Blood Pressure Characterization Using Echocardiography	Nathan Painchaud	Olivier Bernard	08/2024
M.Sc	Deep learning methods for annotating massive databases	Arnaud Judge	–	12/2024
M.Sc.	Estimation d'incertitude de segmentation Cardiaque par réseaux de neurones profonds	Thierry Judge	–	01/2023
Ph.D.	Intelligence artificielle pour la caractérisation du cancer de la prostate par agressivité en IRM multiparamétrique	Audrey Duran	Olivier Bernard	02/2023
Ph.D.	Analyzing end-to-end the white matter with convolutional neural networks	Jon Legarreta Gorroño	Maxime Descoteaux	04/2023
Ph.D.	Privacy Preservation in Medical Imaging	Bach Kim	Christian Desrosiers - Jose Dolz	12/2023
M.Sc.	Anatomical consistency and confidence estimation of cardiac segmentation of ultrasound images using variational auto-encoders	Thierry Judge	–	12/2022
M.Sc.	Reinforcement learning methods for white matter tractography.	Antoine Théberge	Maxime Descoteaux	03/2021
Post.doc	Neural teleportation: quiver representations applied to neural networks	Marco A. Armenta	–	05/2021
Ph.D.	Artificial intelligence methods applied to cardiovascular MRI segmentation	Youssef Skandarani	Alain Lalande	09/2021

Degree	Title	Student	Advisor	Date
Ph.D.	Brain tractography with recurrent neural networks	Philippe Poulin	Maxime Descoteaux	12/2021
Ph.D.	Artificial intelligence for characterizing prostate cancer aggressiveness using multiparametric MRI	Audrey Duran	Carole Lartizien	12/2021
M.Sc.	Deep segmentation of multi-modal satellite images	Charles Authier	–	06/2020
Ph.D. (intern)	Development and application of rule- and learning-based approaches within the scope of neuroimaging	Daniel Jorgens	Rodrigo Moreno - Maxime Descoteaux	06/2020
M.Sc.	Cardiac segmentation with strong anatomical guaranties	Nathan Painchaud	–	08/2020
Ph.D.	Automation of semantic segmentation of cardiac structures in ultrasound imaging using supervised learning	Sarah Leclerc	Olivier Bernard	12/2019
Ph.D.	AI methods for highly effective person detection	Sébastien Piérard	Marc Van Droogen- broeck	09/2018
Ph.D.	Traffic Analysis of Low and Ultra-low Frame-Rate Videos	Zhiming Luo	–	12/2018
M.Sc.	Deep convolutional neural network with automatic registration technique applied to MRI cardiac segmentation	Clément Zotti	–	12/2017
M.Sc.	Deep Compression Techniques to Reduce the Size of Convolutional Neural Networks	Carl Lemaire	–	01/2017
M.Sc.	Fine grain localization of vehicles from high-resolution traffic surveillance images	Frédéric Branchaud-Charron	–	01/2017
Ph.D.	Motion based vision methods and their application	Yi Wang	–	12/2017
M.Sc.	Statistical analysis of diffusion MR images for patients suffering from Parkinson's disease	Martin Cousineau	Maxime Descoteaux	5/2017
Ph.D. (intern)	Automatic prostate MRI tissue characterization from relaxation-time features using SVMs	Jorge Zavala-Bojorguez	Alain Lalande	08/2017
M.Sc.	Graph cut method for left ventricular segmentation from MRI and echocardiographic images	Michael Bernier	–	9/2016
Ph.D.	Exploration of machine learning methods for brain tumor segmentation	Mohammad Havaei	Hugo Larochelle	08/2016
M.Sc.	Application of compression to tractography in diffusion magnetic resonance imaging	Caroline Presseau	Maxime Descoteaux	5/2014
Ph.D.	AI tools for low altitude remote sensing image registration	Cai Guo-Rong	Shaozi Li	12/2013
M.Sc.	Database and test bench for validating motion detection methods	Nil Goyette	–	9/2012
Ph.D.	Semi automatic brain tumor segmentation for longitudinal applications	Soheil Gadami	–	11/2012 (withdrew due to major health issue)
M.Sc.	Semi-automatic segmentation of abdominal aortic tomographic images by graph slice	Anthony Adam Duquette	–	02/2011
M.Sc.	Reconstruction of geometric primitives with unstructured light	Julien Prémont	–	02/2011
M.Sc.	Content-based retrieval for video surveillance	André Caron	–	09/2011

M.Sc.	Stereoscopic reconfiguration applied to 3D cinema	Jean-Christophe Houde	–	05/2012
M.Sc.	Activity-based video surveillance sequence analysis	Pierre Clarot	–	08/2010
Ph.D.	Multi camera video surveillance via co-occurrence analysis	Erhan Ermis	Venkatesh Saligrama	09/2029
Ph.D.	Human-presence detection using computer vision	Yannick Bénézeth	Christophe Rosenberger	12/2009

SUPERVISED RESEARCH ASSISTANTS

Diploma	Task	Name	Period
Ph.D.	Development of a clinically-ready brain harmonisation method	Gabriel Girard	09/2022 - 09/2025
Ph.D.	Validation of a clinically-ready brain harmonisation method	Manon Edde	01/2023 - 05/2025
Ph.D.	Development of a clinically-ready brain harmonisation method	Philippe Poulin	01/2022 - 09/2022
M.Sc.	Building of a large normative diffusion MRI brain database	Félix Dumais	01/2022 - 01/2024
M.Sc.	Broad support of the students in my lab (involved in most of my projects)	Carl Lemaire	09/2018 - 12/2021

INVITED ORAL PRESENTATIONS

Title	Event	Date
Generative, auto encoders and adversarial methods for medical imaging	Deep learning for medical imaging, Summer school Montreal	2025
Basics in deep learning, part 1, 2, 3	Deep learning for medical imaging, Summer school Montreal	2025
Is the AI revolution a true revolution?	Semaine de la cultures scientifique, Sherbrooke	2025
Advances in AI-based echocardiographic analysis.	Congrès annuel de l'Ordre des technologues en imagerie médicale, en radio-oncologie et en électrophysiologie, Sherbrooke	2024
Introduction to graph neural networks	CREATIS - Lyon conferences	2024
Basics in deep learning, part 1 and 2	Deep learning for medical imaging, Summer school Montreal	2024
Mixup-Privacy: A simple yet effective approach for privacy-preserving segmentation.	Oral presentation at Image Processing and Medical Imaging (IPMI) conf. Bariloche, Argentine	2023
Basics in deep learning, part 1, and 2	Deep learning for medical imaging, Summer school Montreal	2023
Introduction to machine learning Part 1 and 2.	Deep learning for medical imaging, Summer school Montreal	2022

MLOps or the Modern Way of Developing Deep Learning Software.	CREATIS monthly seminar. Lyon	2022
Opportunities and challenges of processing very large medical datasets	CREATIS monthly seminars. Lyon	2022
Starting up a business in medical imaging: A survival kit.	CREATIS monthly seminars. Lyon	2022
Theory and Applications of Spectral Clustering.	CREATIS monthly seminars, Lyon	2022
Variational Autoencoder : Making it Work	Deep learning for medical imaging summer school	2022
Basics in deep learning, part 1 and 2	Deep learning for medical imaging summer school	2021
Variational Autoencoder : Making it Work	Deep learning for medical imaging summer school	2021
L'IA et la médecine	Neuro-Show 2. Sherbrooke	2021
AI: What's under the hood? Why & how does it work?	Imeka webinar. Canada	2020
Ex Machina : IA entre fiction et réalité.	NeuroCiné. Sherbrooke	2019
Advanced concepts in deep learning	Deep learning for medical imaging summer school	2019
Basics of deep learning	Deep learning for medical imaging summer school	2019
Cardiac MRI Segmentation with Strong Anatomical Guarantees	Montreal AI Symposium	2019
Evaluating the AI Challenge: Participants, Performance, and Takeaways	MICCAI ACDC Challenge	2017
Solving video analytic and medical imaging problems through deep learning methods	Monthly seminars, University of Lyon	2017
Solving video analytic and medical imaging problems through deep learning methods	Monthly seminars, ETS, Montreal	2017
Evaluating the AI Challenge: Participants, Performance, and Takeaways	IEEE CVPR Traffic Surveillance Workshop and Challenge	2017
Evaluating the AI Challenge: Participants, Performance, and Takeaways	ICPR Scene background modeling workshop	2016
Evaluating the AI Challenge: Participants, Performance, and Takeaways	IEEE CVPR Change detection workshop	2014
Défis et perspectives de la surveillance vidéo et de l'' analyse d' images par drones	Workshop Centre de recherche sur les environnements intelligents	2014
Video surveillance and UAV's: challenges and future works	Conference on Computer vision robot, Montreal (Invited Talk)	2014
Meta-Tracking for Video Scene Understanding.	Xiamen University, Xiamen China	2014

Video Analytics: Extracting High-Level Information Based on Low-level Image Features	Université de Liège, Liège	2014
Graph-cut and its applications in Computer vision	Xiamen University, Xiamen China	2014
The western world in 30 minutes	Jimei University, Jimei China	2014
Video Analytics: Extracting High-Level Information Based on Low-level Image Features.	Centre de recherche en informatique de Montréal (CRIM)	2013
Digital Imagery Applied to Intelligent Environments	Workshop du Centre de recherche sur les environnements intelligents, Sherbrooke	2013
Tutorial on Spectral clustering	Otto-von-Guericke University, Magdeburg Germany	2012
Video Analytics: Extracting High-Level Information Based on Low-level Image Features	Otto-von-Guericke University, Magdeburg Germany	2012
ChangeDetection.net: a Novel Dataset for Change Detection Benchmarking	National Research Council, Ottawa	2012
From Bits to Content, a Different Approach to Video Analytics	École polytechnique de Montréal	2012
L'imagerie numérique au département d'informatique de l'Université de Sherbrooke	Warner Brothers inc, Montreal	2012
Opening talk and results of the challenge. (Plenary session)	IEEE CVPR Change detection workshop, Rhode Island USA	2012
From Bits to Content, a Different Approach to Video Analytics	Chinese Academy of Science, Shenzhen China	2011
From Bits to Content a Different Approach to Video Analytics	Xiamen University, Xiamen China	2011
From Bits to Content, a Different Approach to Video Analytics	Plenary speaker, IEEE- International Conference on Intelligent Comp. and Intelligent Systems (ICIS)	2011

SCIENTIFIC CONTRIBUTIONS

Grand total : **153**

JOURNAL PAPERS (*equal contribution)

Total : **70 papers**
Total first or last author : **49 papers**

F. Sinzinger, Antoine Théberge, P-M. Jodoin, M. Descoteaux, R Moreno (2025) **Leveraging Rotational Equivariance for Reinforcement Learning in Tractography**, submitted to Medical Image Analysis, p.1-28;

G. Girard, M. Edde, F. Dumais, Y. David, M. Dumont, G. Theaud, J-C. Houde, A. Boré, M. Descoteaux, P-M Jodoin (2025) **Clinical-ComBAT: a diffusion-weighted MRI harmonization method for clinical applications** submitted to Medical Image Analysis, p.1-29

A Théberge, Z El Yamani, M Barakovic, S Magon, J Yuan-Mou Yang, M Descoteaux, F. Rheault, P-M Jodoin (2025) **BundleParc: Consistent White Matter Bundle Parcellation without Tractography,** submitted to Medical Image Analysis, p.1-14

A. Judge, N. Duchateau, T. Judge, R.A. Sandler, J.Z. Sokol, C. Desrosiers, O. Bernard, and P.-M. Jodoin (2025) **Reinforcement Learning for Unsupervised Domain Adaptation in Spatio-Temporal Echocardiography Segmentation,** submitted to IEEE transactions on Medical Imaging, p.1-12;

O. Bernard, W. Romero, C. Bouton, C. Goujat, H.J. Ling, P-M. Jodoin, F. Guo, C. Sheagren, G. Wright, A. Qayyum, M. Mazher, S.A.Niederer, H. Wang, X. Wu, F. Thaler, G. Plank, M. Urschler, R.M. Rosales, E. Pueyo, N. Duchateau, F. Cervenansky, P. Clarysse, L. Belle, N. Mewton, T. Bochaton, M. Viallon, and P. Croisille (2025) **The MYOSAIQ Challenge: Myocardial Segmentation with Automated Infarct Quantification,** submitted to Transactions on Medical Imaging, p.1-12;

T. Judge, O. Bernard, W-J Cho Kim, A. Gomez, A. Chartsias, and P-M Jodoin (2025) **Uncertainty Propagation for Echocardiography Clinical Metric Estimation via Contour Sampling,** accepted at IEEE Transactions on Image Processing, p.1-12;

P-M Jodoin, M. Edde, G. Girard, F. Dumais, G. Theaud, M. Dumont, J-C. Houde, Y. David, M. Descoteaux (2025) **ComBAT Harmonization for Diffusion MRI: Challenges and Best Practices,** Accepted at Nature Scientific Report, p.1-17;

AA Tasken, T. Judge, E. Andreas R. Berg, J. Yu, B. Grenne, F. Lindseth, S Aakhus, P-M Jodoin, N. Duchateau, O. Bernard, and G. Kiss (2025) **Estimation of Segmental Longitudinal Strain in Transesophageal Echocardiography by Deep Learning,** Accepted at IEEE Journal of Biomedical and Health Informatics, p.1-12;

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