

Jean-Philippe Chassé, Ph.D. [they/he]

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Academic Positions


2022 – 2024 ■ **Postdoctoral researcher**, ETH Zürich, Zurich.
Supervisor: *Paul Biran*.

Education

- 2018 – 2022 ■ **Ph.D. in Mathematics**, Université de Montréal, Montreal.
Supervisor: *Octav Cornea*.
Thesis title: *Sur la relation entre les métriques de nature symplectique et la métrique de Hausdorff en présence de bornes riemanniennes*.
- 2020 – 2021 ■ **Microprogram in German Studies**, Université de Montréal, Montreal
- 2017 – 2018 ■ **M.Sc. in Mathematics**, Université de Montréal, Montreal.
Supervisor: *François Lalonde*
Thesis title: *Sur le h -principe pour les immersions coisotropes et les classes caractéristiques associées*.
- 2014 – 2017 ■ **B.Sc. in Mathematics & Physics**, Université de Montréal, Montreal.

Research

Publications & Preprints

- 1 Chassé, J.-P. (2022d). Hausdorff limits of submanifolds of symplectic and contact manifolds. [arxiv:2204.02468](https://arxiv.org/abs/2204.02468).
- 2 Chassé, J.-P. (2021d). Convergence and Riemannian bounds on Lagrangian submanifolds. [arxiv:2108.00555](https://arxiv.org/abs/2108.00555) (to appear in *Internat. J. Math.*)
- 3 Chassé, J.-P. (2019b). Coisotropic characteristic classes. *Ann. Math. Québec*, 44(2), 393–400. 
<https://doi.org/10.1007/s40316-019-00126-1>

Invited Talks

- 1 Chassé, J.-P. (2022a, December). The behavior of Hausdorff-converging sequences of Lagrangian submanifolds. *Symplectix*, Institut Henri Poincaré.
- 2 Chassé, J.-P. (2022b, November). Sequences of Lagrangian submanifolds respecting uniform Riemannian bounds and their limits in various metrics. *ETH Zürich Symplectic Seminar*.
- 3 Chassé, J.-P. (2021a, October). Convergence and Riemannian bounds on Lagrangian submanifolds. *Symplectic Zoominar*, CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris.
- 4 Chassé, J.-P. (2020a, December). The impact of metric constraints on the behavior of shadow metrics. *2020 CMS Winter Meeting (Symplectic Topology Session)*.
- 5 Chassé, J.-P. (2020b, February). The topology of Lagrangian submanifolds calibrated by curvature. *Montreal Symplectic Seminar*, CIRGET.

Scholarships & Awards

- 2020 – 2022 **FRQNT Doctoral Research Scholarship.** Scholarship awarded by the *Fonds de recherche du Québec - Nature et technologies* (FQRNT) [B2X].
- 2019 – 2021 **NSERC Alexander Graham Bell Canada Graduate Scholarship — Doctoral Program.** Scholarship grant awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) [CGS D].
- 2021 **NSERC Michael Smith Foreign Study Supplements (canceled due to the COVID-19 pandemic).** Supplement awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) [CGS-MSFSS].
- 2017 – 2018 **FRQNT Master’s Research Scholarship.** Scholarship awarded by the *Fonds de recherche du Québec - Nature et technologies* (FQRNT) [B1X].
- NSERC Alexander Graham Bell Canada Graduate Scholarships — Master’s Program.** Scholarship grant awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) [CGS M].
- 2016 **FRQNT Supplement of the NSERC Undergraduate Student Research Awards.** Supplement awarded by the *Fonds de recherche du Québec - Nature et technologies* (FQRNT) [BPCA].
- NSERC Undergraduate Student Research Awards.** Financial support awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) [USRA].
- 2015 **NSERC Undergraduate Student Research Awards.** Financial support awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) [USRA].

Participation to Academic Events

Conferences, Workshops & Summer Schools

- 2023 **From smooth to C^0 symplectic geometry: topological aspects and dynamical implications.** CIRM (Marseille, France).
- LP-60: Geometry and Dynamics.** ETH Zürich (Zurich, Switzerland).
- 2022 **Séminaire de mathématiques supérieures: Floer homotopy theory.** University of British Columbia (Vancouver, Canada).
- Frontiers of quantitative symplectic and contact geometry.** Institut Mittag-Leffler (Djursholm, Sweden).
- Recent developments in Lagrangian Floer theory.** Simons Center for Geometry and Physics (New-York, U.S.A.; reported from 2020, online).
- 2021 **Spring school on symplectic and contact topology.** CIRM-IHP (online).
- 2019 **Persistent homology and barcodes.** JLU Giessen (Marburg, Germany).
- Graduate summer school on homological algebra of mirror symmetry.** Fields Institute (Toronto, Canada).
- Séminaire de mathématiques supérieures: Currents trends in symplectic topology.** CRM (Montreal, Canada).
- Homological algebra, microlocal analysis and symplectic geometry.** CRM (Montreal, Canada).
- 2018 **Workshop on immersed Lagrangian cobordisms.** Fields Institute/University of Ottawa (Ottawa, Canada).

Participation to Academic Events (continued)

Seminars & Working Groups

- 2022 – ■ **Symplectic geometry seminar.** ETH Zürich (Zurich, Switzerland).
- 2022 – ■ **Junior symplectic geometry seminar.** ETH Zürich (Zurich, Switzerland).
- 2021 – 2022 ■ **Little hybrid symplectic seminar.** Université de Montréal (Montreal, Canada).
- 2020 – 2022 ■ **Working group on geodesics and symplectic topology.** Université de Montréal (Montreal, Canada).
- 2018 – 2022 ■ **J-seminar.** Université de Montréal (Montreal).
- 2018 ■ **Working group on the symplectic homology of cotangent bundles.** Université de Montréal (Montreal, Canada).

Teaching History & Other Research Experience

- 2023 ■ **Seminar organizer.** Department of Mathematics, ETH Zürich, Zurich.
- 2022 ■ **Lecturer.** Department of Mathematics & Statistics, Université de Montréal, Montreal.
- 2016 – 2021 ■ **Teaching Assistant.** Department of Mathematics & Statistics, and Department of Physics, Université de Montréal, Montreal.
- 2016 ■ **Undergraduate Researcher.** Department of Mathematics & Statistics, Université de Montréal, Montreal.
Supervisor: *François Lalonde*.
- 2015 ■ **Undergraduate Researcher.** Department of Physics, Université de Montréal, Montreal.
Supervisor: *Luc Vinet*.

Professional Service

Conference Organizer

- 2019 ■ **22nd ISM Graduate Student Conference.** Colloquium for graduate students from across the province of Quebec (Montreal, Canada).
- 2017 ■ **2017 Canadian Undergraduate Mathematics Conference.** Colloquium for undergraduate students from across Canada (Montreal, Canada).

Weekly Seminar Organizer



- 2018 – 2022 ■ **J-Seminar.** Student reading group on quantum and Floer (co)homology at Université de Montréal (Montreal, Canada).
- 2018 – 2021 ■ **Séminaire étudiant de mathématiques de l'Université de Montréal.** Weekly seminar for and by graduate students from Université de Montréal (Montreal, Canada).
- 2016 – 2017 ■ **Club mathématique de l'Université de Montréal.** Weekly seminar for undergraduates from Université de Montréal (Montreal, Canada).

Committees

- 2020 – 2022 ■ **Femmes en maths.** Student committee focused on underlining past and present contributions of women in mathematics (Montreal, Canada).

Outreach




Articles & Posters

- 1 Chassé, J.-P. (2021e). Frances Hardcastle. *Femmes en maths*. 
<https://femmesenmaths.org/frances-hardcastle/>
- 2 Chassé, J.-P. (2019c). Comment (ne pas) accrocher un cadre. *SUMM 2019*.
- 3 Chassé, J.-P. (2018d). Quelques mots sur les courbes remplissantes. *Notes from the Margin*, 13, 8–9.
 <https://issuu.com/cms-studc/docs/margin-spring2018>

Talks for a wider mathematical audience

- 1 Chassé, J.-P. (2023, March). Metric Lagrangian topology. Cambridge's Junior Geometry Seminar.
- 2 Chassé, J.-P. (2022c, February). Dans les petites sphères, les meilleurs plongements. Club mathématique de l'Université de Montréal.
- 3 Chassé, J.-P. (2021b, May). Ellipsoïdes et escaliers infinis. 23rd ISM Graduate Student Conference.
- 4 Chassé, J.-P. (2021c, March). Une histoire de ficelles et de clous. Club mathématique de l'Université de Montréal.
- 5 Chassé, J.-P. (2019a, April). Comment distinguer deux espaces? Séminaire étudiant de mathématiques.
- 6 Chassé, J.-P. (2018a, May). Du dernier théorème géométrique de poincaré à la conjecture de arnol'd. 21st ISM Graduate Student Conference.
- 7 Chassé, J.-P. (2018b, March). La topologie algébrique à la rescousse de l'analyse de données. SAPHARI 2018.
- 8 Chassé, J.-P. (2018c, January). Brève excursion dans le monde des courbes remplissantes. SUMM 2018.
- 9 Chassé, J.-P. (2017a, November). Introduction à la topologie (algébrique). Séminaire étudiant de mathématiques.
- 10 Chassé, J.-P. (2017b, July). Finite groups in physics - groupes finis en physique. CUMC 2017.
- 11 Chassé, J.-P. (2017c, January). Sandwich et topologie algébrique. SUMM 2017.

Skills & Interests

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| Languages |  French (native language), English (C2), German (B2) |
| Research Interests |  Symplectic topology and Riemannian geometry |
| Personal Interests |  Cinema, literature, political philosophy, coffee making, mushroom foraging, and weird ferments. |