

# Shahriar Aslani

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- CONTACT INFORMATION Department of Mathematics,  
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- Offices:  
PG Building 307B  
UTM, Deerfield Hall 3097B
- AFFILIATION **University of Toronto, department of mathematics**  
Postdoctoral fellow and course instructor.  
Advisor: Ke Zhang
- RESEARCH INTERESTS Hamiltonian dynamics, symplectic geometry, weak KAM theory.
- EDUCATION **PSL research university, École normale supérieure,  
département de mathématiques et applications (DMA)**  
Ph.D. in Mathematics, defended on June 2022  
Dissertation Topic: Bumpy metric theorem in the sense of Mañe for non-convex Hamiltonian systems  
Advisor: Patrick Bernard
- Sharif university of technology, department of mathematical sciences**  
M.S. in Mathematics, defended on July 2018  
Dissertation Topic: Analysis and differential equations on Fractals.  
Advisor: Alireza Ranjbar-Motlagh
- PUBLICATIONS Shahriar Aslani, Patrick Bernard, *Bumpy metric theorem in the sense of Mañe for non-convex Hamiltonian systems*. Submitted to the Journal of Modern Dynamics, January 2022.  
Shahriar Aslani, Patrick Bernard, *Normal forms near orbit segments of convex Hamiltonian systems*. International Mathematics Research Notices, January 2021.
- TALKS *Bumpy metric theorem in the sense of Mañe for non-convex Hamiltonians*, Jussieu, geometry and topology seminar, January 2022.
- Mañe generic properties of non-convex Hamiltonian systems*, Ruhr University Bochum, January 2022.
- Normal form on orbits of a Hamiltonian vector field and its application in perturbation theorems*, working group on Hamiltonian and symplectic dynamics, Jussieu, October 2021.
- On Bumpy metric theorem in the sense of Mañe*, IPM youth seminar in topology and dynamics, June 2021. (Virtual)

*Geometric control methods in the study of Mañé perturbations of the linearized Poincaré maps*, Moscow seminar of geometric theory of optimal control, April 2021. (Virtual)

*Local normal form on orbits of a convex/non-convex Hamiltonian vector field*, séminaire des doctorants d'Analyse d'Orsay, March 2021.

*A local normal form on regular orbits of a Hamiltonian vector field and its applications*, reunion's day of Analysis team in ENS Paris, September 2020.

HONORS AND AWARDS

2018-2021 Marie Skłodowska-Curie grant of European Union's Horizon research and innovation program.

2018-2021 Doctoral fellowship, *Foundation Sciences Mathématiques de Paris*.

TEACHING EXPERIENCE

Spring 2023 Instructor, Linear Algebra II, University of Toronto

Fall 2022 Instructor, Introduction to mathematical proof, University of Toronto

Spring 2022 Teacher Assistant, Analyse 2, PSL research university, Dauphine university.

Spring 2018 Teacher Assistant, Multivariable Calculus, Sharif university of technology.

Fall 2018 Teacher Assistant, Calculus 1, Sharif university of technology.

Spring 2017 Teacher Assistant, Multivariable Calculus, Sharif university of technology.

VISITS

January 2022 Ruhr University, Bochum, Germany

October 2020 J.A.Dieudonné laboratory, Nice, France.

May 2018 École normale supérieure, Paris, France.

LANGUAGES

English: Professional proficiency

French: B1

Persian: Native