# Yakov (Yasha) Savelyev

Profesor e investigador Titular A (Roughly associate professor)

CUICBĂS

University of Colima, Mexico

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### Personal

Born: January 17, 1980, Moscow, Russia.

Citizenship: USA, Russia

### **EDUCATION**

Ph.D. SUNY Stony Brook, August 2008

Ph.D Advisor: Dusa McDuff

B.S. Mathematics, SUNY Stony Brook, 2002

#### LANGUAGES

Russian: native English: fluent Spanish: proficient

# APPOINTMENTS

Visiting Assistant Professor, University of Massachusets, Amherst 2008-2011

Postdoctoral Fellow, MSRI, spring 2010

Postdoctoral Fellow CRM-Montreal, August 2011- August 2013

Postdoctoral Fellow, ICMAT, Madrid, 2013-2015 (december)

Profesor e investigador Titular A, CUICBAS, University of Colima, start march 2016

## LONGER TERM PROFESSIONAL VISITS

Tel Aviv University, winter 2009 (Invited by Leonid Polterovich)

RIMS Kyoto University, spring 2014 (Invited by Kaoru Ono)

IAS, spring 2024, Member

#### RESEARCH INTERESTS

Conceptual approaches of category theory, topology and algebra in differential geometry, especially symplectic geometry, and in dynamical systems. I also have a constant attraction to mathematical ideas born in physics.

Interests more specifically: Floer-Gromov-Witten theory and its interactions with Hofer geometry and algebraic topology. Other recent interests: sky catas- trophes in dynamical systems, rigidity in locally conformally symplectic geometry, geometric quan- tization and twisted-untwisted K-theory, generalized smooth spaces and smooth Kan complexes, incompleteness theorems in logic, Gromov-Witten invariants of Riemann-Finsler manifolds, algebraic K-theory via differential geometry.

## Publications and Preprints

Publication list

#### TEACHING EXPERIENCE

3 years of lecturing experience as a graduate student at Stony Brook university, with 1 course per semester load. These were very large calculus sections with 100 or more enrolled students per section. I also TA'd at Stony Brook for calculus, business calculus, and graduate algebraic topology (twice).

Another 2.5 years of lecturing experience as a visiting assistant professor at University of Massachusetts, Amherst. (Away for half a semester at MSRI). I was doing 2 courses/sections per semester. Each section had about 20-30 enrolled students. These were calculus and multivariable calculus sections.

7+ years of teaching experience at the University of Colima, with a diverse teaching portfolio from basic classes like calculus, complex analysis, and discrete mathematics to more advanced classes on algebraic topology and differential geometry. All classes are undergraduate as we do not have a graduate program. Link to the list of classes taught at current home institution University of Colima, Mexico.

## SERVICE MENTORSHIP

Presented a number of colloquium talks to high school students, in Colima.

Advised a student on an undergraduate thesis, "Geometric methods in topology", she is now working on PhD at Umass Amherst.

Regular participant in outreach activities for attracting high school students to mathematics, since 2016, Colima. (For example career fair's.)

Undergraduate advising, 2-3 students each semester, since 2016

## OTHER SERVICE

Elected member of the university "technical council", (university senate), since 2019.

Director of undergraduate advising of the faculty of science, since 2023.

Referee for the Mexican national science foundation grants.

I assist in the yearly mathematics competition for high school students which is organized by our department.

Co-organizer for the PRIMA mathematical congress in Oaxaca, 2017

Co-organizer for the weekly seminar at the University of Colima, since 2016

Organizer for the student seminar, Fall 2019

Organizer for the Go club, Fall 2022

Member of the department committee, which is in charge of organizing academic activities and has various administrative duties, like course selection for each semester, and distribution of teaching duties.

Referee for mathematical journals, and reviewer for Zentralblatt.

Co-organizer for symplectic geometry seminar at CRM-Montreal for the 2012-2013 year.

#### Fellowships

MSRI Postdoctoral fellowship, spring 2010, CRM-Montreal postdoctoral fellowship, 2011-2013 ICMAT Madrid postdoctoral fellowship, 2013-2015 IAS member fellowship, spring 2024

### Grants

SNI researcher grant, nivel 1, 2016- ongoing (15,000 USD annual) PRODEP 2017-2019 Conacyt, Science Frontier Grant, 2023 (Principal Investigator)

#### Reference letters

Yasha Eliashberg, Stanford Yael Karshon, University of Toronto and University of Tel Aviv Mohammed Abouzaid, Columbia University