

# Ivan Levcovitz

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US Citizen, Brazilian Citizen

## EDUCATION

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**CUNY Graduate Center, New York City, NY** May 2018 (expected)  
*PhD, Mathematics*  
Advisor: Jason Behrstock  
Thesis Title: Divergence of CAT(0) Cube Complexes and Coxeter Groups

**University of Pennsylvania, Philadelphia, PA** May 2011  
*BSE, School of Engineering & Applied Sciences*

- Majors: Mathematics, Electrical Engineering
- Magna Cum Laude

**Escola Americana Do Rio De Janeiro, Rio do Janeiro, Brazil** June 2007

- Graduated with International Baccalaureate, American, and Brazilian Diploma

## RESEARCH INTERESTS

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Geometric Group Theory, Low-Dimensional Topology, CAT(0) Geometry, Coxeter Groups, Hyperbolic Geometry

## TEACHING/EMPLOYMENT

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**Hunter College, New York City**  
*Quantitative Reasoning Fellow* Fall 2015-Spring 2016

- Developed Python software for the economics tutoring center
- Analyzed 10 years of course and student trajectory data to research trends that can identify undergraduate students that are at risk of not graduating.
- Created teaching assignments focused on quantitative reasoning

**Baruch College, New York City**  
*Instructor*

- Applied Calculus, Math 2205 Spring 2015
- Precalculus and Elements of Calculus, Math 2003 (two sections) Fall 2014
- Applied Calculus and Matrix Algebra, Math 2207 Spring 2014
- Applied Calculus and Matrix Algebra, Math 2207 (two sections) Fall 2013

**Research on Application of Euler Integration Theory to Sensor Networks, University of Pennsylvania**  
*Research Assistant/Programmer under Professor Robert Ghrist* Summer 2010

- Researched effectiveness of topological theories applied to sensor networks
- Simulated large sensor networks through Java software
- Improved mathematical algorithms

**The Tutoring Center, University of Pennsylvania**  
*Tutor* Fall 2009 – Spring 2010

- Tutored Calculus (1, 2 and 3) and Physics (Electromagnetism, Mechanics)

## AWARDS/GRANTS

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- Mina Rees Dissertation Fellowship 2016-2017
- Quantitative Reasoning Fellowship 2015-2016
- Doctoral Student Research Grant 2015-2016
- Graduate Assistant Science Fellowship 2011-2013
- Penn Engineering Exceptional Service Award 2011

## PAPERS

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- A quasi-isometry invariant and thickness bounds for right-angled Coxeter groups
- Divergence of CAT(0) cube complexes and Coxeter groups, *submitted*, [arXiv:1611.04378](https://arxiv.org/abs/1611.04378)

## TALKS

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- CUNY Graduate Center, Hyperbolic Geometry Seminar 2017
- Ohio State University, Geometric Group Theory Seminar 2017
- Geometric Groups on the Gulf Coast ( $G^3$ ) 2017
- Spring Topology and Dynamical Systems Conference 2017
- Temple University, Geometry and Topology Seminar 2017
- Tech Topology Conference 2016
- CUNY Graduate Center, Geometry and Topology Seminar 2016
- Topology Student Workshop, Georgia Institute of Technology 2016
- CUNY Graduate Center, Geometric Group Theory Course 2016
- CUNY Graduate Center, Geometry and Topology Student Seminar 2015
- CUNY Graduate Center, Hyperbolic Geometry Seminar 2013
- CUNY Graduate Center, Geometric Group Theory Course 2013

## CONFERENCES ATTENDED

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- Spring Topology and Dynamical Systems Conference, *New Jersey City University, NJ* 2017
- Tech Topology Conference, *Georgia Institute of Technology, Atlanta, GA* 2016
- Groups Acting On CAT(0) Spaces *MSRI, Berkeley, CA* 2016
- Beyond Hyperbolicity, *Cambridge, England* 2016
- Topology Student Workshop, *Georgia Institute of Technology, Atlanta, GA* 2016
- Young Geometric Group Theory V, *Karlsruhe, Germany* 2016
- Cornell Topology Festival, *Cornell, Ithaca, NY* 2015
- GATSBY, *Yale, New Haven, CT* 2015
- Graduate Student Conference in Algebra, Geometry and Topology, *Temple University, Philadelphia, PA* 2015
- CUNY Convergence of Metric Spaces, *CUNY Graduate Center, New York, NY* 2014
- Topology Student Workshop, *Georgia Institute of Technology, Atlanta, GA* 2014
- GEAR Junior Retreat, *University of Michigan, Ann Arbor, MI* 2014
- Geometric Topology in New York, *Columbia University, New York, NY* 2013
- Cycles, Calibrations and Nonlinear Geometry conference, *Stony Brook University, NY* 2012

## SKILLS

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### Technical:

- *Programming Languages:* Python, Java, C, PHP, HTML, CSS, SQL, JavaScript; familiar with: Linux
- *Hardware:* Electrical engineering lab experience including circuits and microcontrollers

### Languages:

- Fluent in English and Portuguese, conversant in Spanish

## OTHER

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- Rated tournament chess player