CYRUS PETERPAUL

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EDUCATION

Brown University *September 2016 - May 2019*
Doctor of Philosophy - Mathematics
Dissertation:
Lifting Arc Diagrams Under Branched Covers: An Inverse Problem and its Algorithmic Solution
Advisor: Jeremy Kahn

City University of New York - Graduate Center *September 2010 - May 2016*
Master of Science - Mathematics
Topic: New sources of hardness in cryptography
Advisor: Nelly Fazio

Dartmouth College *September 2006 - June 2010*
AB - Mathematics, *cum laude*

TEACHING

Visiting Lecturer: Calculus I
Community College of Rhode Island *Fall 2019*

Visiting Lecturer: Statistics I
Community College of Rhode Island *Fall 2019*

Visiting Lecturer: College Algebra
Community College of Rhode Island *Fall 2019*

Lecturer: Multivariable Calculus for Physicists and Engineers
Brown University *Fall 2018*

TA: Calculus I
Brown University *Spring 2018*

Lecturer: Calculus II
Brown University *Fall 2017*

Volunteer Tutor: Adult Basic Mathematics and GED Preparation
Petey Greene Program *Fall 2016 - Spring 2017*

Adjunct Professor: Calculus I
Brooklyn College *Spring 2012 - Fall 2012*

Adjunct Professor: Precalculus
Brooklyn College *Fall 2011 -Spring 2012*

RESEARCH INTERESTS

My thesis was on a class of embedded graphs on surfaces, with applications in 3-manifold topology. Ongoing research includes graphs on surfaces, Heegaard Floer homology, computational topology, and machine learning.

FUNDING

NSF Research Grant *2013-2015*
For work on cryptography with Nelly Fazio

PUBLICATIONS

1. *Lifting Arc Diagrams Under Branched Covers: An Inverse Problem and its Solution*, https://arxiv.org/abs/2009.05608. Submitted for review at *Electronic Journal of Combinatorics*.
2. *Lifting Arc Diagrams Under Branched Covers: An Inverse Problem and its Algorthmic Solution*, PhD. Dissertation, Brown U., 2019.

TALKS

- Arc Diagrams and their Connection to Heegaard Floer Homology, AMS Graduate Student Conference in Geometry and Topology, Brown U.