

Drew C. Youngren

Lecturer in Discipline
Department of Applied Physics
& Applied Mathematics
Columbia University
New York, NY 10028

Date of Birth: November 7, 1978
Citizenship: United States
Email: dcy2@columbia.edu

Education

B.S. Applied Mathematics, Columbia University, 2000.

M.A. Mathematics, Stony Brook University, 2002.

Ph.D. Mathematics, Northwestern University, 2006.

DISSERTATION: *Microlocal Analysis of the Anharmonic Oscillator with Large Potential.*

COMMITTEE: Jared Wunsch (advisor), Boris Tsygan, Gui-Qiang Chen,

M.A. Mathematics Education, New York University, 2007.

Research Interest

Microlocal Analysis, Partial Differential Equations, Mathematics Education.

Experience

Lecturer in Discipline, Applied Mathematics, Columbia University, 2017–

Developer, Multivariable Calculus for Engineers & Applied Scientists, 2017

Clinical Assistant Professor of Mathematics, New York University, 2012–2017

Instructor, NYU Abu Dhabi Summer Academy, 2016–

Developer, Online Calculus Project, 2014–

Lead author, Departmental Assessment, 2012–2016

Developer, Transformations & Geometries, Euclidean geometry course for educators, 2012

Adjunct Professor of Mathematics, New York University 2011–2012

Assistant Professor of Mathematics, Bard High School Early College, 2007–2012

Department Liaison (chair), Mathematics Department, 2010–2012

Chair, Evaluation Committee, 2008–2010

Advisor, various independent study courses, 2009–2012

Grants

Undergraduate Teaching of Mathematics with Open Software and Textbooks (UTMOST). R. Beezer, et al. 2017–

FAS Educational Technology Innovation Grant. NYU Office of Educational Technology. 2016.

Student Learning Outcomes Assessment Mini-Grant. NYU Office of Academic Assessment. 2016.

Review Panelist. National Science Foundation. Division of Research on Learning in Formal and Informal Settings. 2013.

The Union-Lafayette NSF CPATH Grant: “Creating a Campus-Wide Computation Initiative”, 2009–2010, Principal Investigator: Valerie Barr

Contributed Talks

Joint Mathematics Meetings. MAA Session on Teaching with Technology: Me & My Gadgets. *The Clickers They Carry: Using Open Software for In-class Surveys*. 2017.

Academic Honors, Fellowships, Assistantships

Outstanding Teacher Award, University of Chicago, nominated by former students, 2010.

RET Fellowship, National Science Foundation, 2009–2011.

Newton Fellowship, Math for America 2006–2011.

Gateway Fellowship, New York University 2006–2007.

Graduate Assistantship, Northwestern University 2005–2006.

Teaching Assistantship, Northwestern University 2002–2005.

VIGRE Fellowship, Stony Brook University 2000–2002.

Selected Teaching Experience

UNIVERSITY

Linear Algebra (MATH-UA.140), course coordinator/lecturer, New York University. multiple semesters

Discrete Mathematics (MATH-UA.120), course coordinator/lecturer, New York University. multiple semesters

Transformations & Geometries (MATH-UA.270), lecturer, New York University. Fall 2012 & 2013

Theory of Probability (MATH-UA.233), lecturer, New York University. (Summer 2014)

Elementary Statistics (CORE-UA.105), lecturer, New York University, (Fall 2012)

Probability, Statistics, and Decision-Making (CORE-UA.107), lecturer, New York University. (Fall 2015, Spring 2017)

Calculus I (MATH-UA.121), course coordinator/lecturer, New York University, multiple semesters

Calculus II (MATH-UA.122), course coordinator/lecturer, New York University, multiple semesters
Calculus III (MATH-UA.123), course coordinator/lecturer, New York University, multiple semesters
Linear Algebra: second course (334-0), recitation, Northwestern, Spring 2006
Real Analysis (320-3), recitation, Northwestern, Spring 2006
Introduction to Modern Analysis (412-2), recitation, Northwestern, Winter 2006
Introduction to Differential Geometry (342-0), recitation, Northwestern, Fall 2005
Introduction to the Geometry of Manifolds (443-1), recitation, Northwestern, Winter 2004
Geometry and Topology (441-1), recitation, Northwestern, Fall 2003

EARLY COLLEGE

Ordinary Differential Equations, instructor, Bard High School Early College, Spring 2011
Introduction to Computer Science, instructor, Bard High School Early College, Fall 2010
Multivariable Calculus, instructor, Bard High School Early College, Spring 2010
Calculus II, instructor, Bard High School Early College, Spring 2009
Calculus I, instructor, Bard High School Early College, Fall 2008
Linear Algebra, instructor, Bard High School Early College, Fall 2008/2009
Cryptology, instructor, Bard High School Early College, Spring 2008
Introduction to Statistics, instructor, Bard High School Early College, Fall 2007

Conferences Attended

AMS/MAA Joint Mathematics Meetings, Atlanta, GA, January 2017
The Many Ways of IBL, University of Chicago, Chicago, IL, June 2013
NSF RET Meeting, Washington, DC, March 2011
AMS-MAA Joint Mathematics Meetings, New Orleans, LA, January 2011
ACM Technical Symposium on Computer Science Education, Milwaukee, March 2010
NSF RET Meeting, Washington, DC, March 2010
NCTM Regional Conference, Atlantic City, October 2006
Schrödinger Evolution Equations, Banff International Research Station, April 2006
AMS Sectional Meeting, Northwestern University, October 2004
The 50th Midwest PDE Seminar, Northwestern University, October 2002
Geometric Analysis: a Conference in Honor of Richard Melrose, Massachusetts Institute of Technology, March 2002

Undergraduate Research

Development of parallel semi-lagrangian advection schemes, advised by Marc Spiegelman, Columbia University, 2000.

Additional Information

COMPUTING SKILLS

Python, Mathematica, Sage, L^AT_EX, SQL, C, Perl.

UNIX System Administrator, Department of Applied Mathematics, Columbia University, 1998–2000

References

Matthew Leingang
Vice Chair for Undergraduate Studies
New York University
(212) 998-
leingang@cims.nyu.edu

Selin Kalaycioglu
Clinical Associate Professor
New York university
(212) 995-8479
kalaycioglu@cims.nyu.edu

Christopher Jankowski
Academic Professional
Georgia Institute of Technology
cjankowski3@math.gatech.edu

Alexander Hanhart
Associate Director of Mathematics
University of Wisconsin at Madison
(608) 263-6374
hanhart@math.wisc.edu

Jared Wunsch
Professor of Mathematics
Northwestern University
(847) 491-5580
jwunsch@math.northwestern.edu

Joseph Jerome
Professor of Mathematics
Northwestern University
(847) 491-5575
jwj@math.northwestern.edu

Michael Lerner
Principal
Bard High School Early College
(212) 995-8479
mlerner@bhsec.bard.edu

Lorenzo Polvani
Professor of Applied Mathematics
Columbia University
(212) 854-7331
lmp@columbia.edu