

Claire Wladis

Borough of Manhattan Community College/City University of New York
cwladis@gmail.com

Professional Preparation

<u>Institution</u>	<u>Major</u>	<u>Dates attended</u>	<u>Degree & Year</u>
Yale University	philosophy	9/1996-5/2000	B.A., May 2000
University of Texas at Dallas	mathematical sciences	9/2001-12/2002	M.S., Dec 2002
City University of New York	mathematics	2/2004-5/2007	Ph.D., May 2007

Appointments

Borough of Manhattan Community College/City University of New York (BMCC/CUNY), Mathematics,
assistant professor, 9/07-present

BMCC/CUNY, Mathematics, instructor, 9/03-9/07

BMCC/CUNY, Mathematics, adjunct instructor, 1/03-8/03

LaGuardia Community College/City University of New York, Mathematics, adjunct instructor, 3/03-8/03

Collin County Community College, Developmental Mathematics, adjunct professor, 9/01-12/02

University of Texas at Dallas, Mathematical Sciences, teaching assistant, 9/01-12/02

South Garland High School, algebra/integrated physics and chemistry teacher, 9/00-8/01

Publications

“Cyclic subgroups are quasi-isometrically embedded in the Thompson-Stein groups,” *submitted for publication*

“Thompson’s groups are distorted in the Thompson-Stein groups,” *submitted for publication*

“The word problem and the metric for generalizations of Thompson’s group F on more than one integer,” *submitted for publication*

“Unusual geodesics in Thompson’s group $F(n)$,” to appear in *Illinois J. of Math.* (2009).

“Thompson’s group $F(n)$ is not minimally almost convex,” *New York J. of Math.*, 13 (2007) 437-481.

Other Articles

“Faculty-Led Study Abroad Programs,” *Faculty Focus*, spring/summer 2009, 9-11.

Grants

CUNY Improving Undergraduate Mathematics Learning Grant: *Increasing Student Success and Retention in Mathematics through Student-Centered Instruction and Collaborative Learning* (\$58,026), Jan 2010 – June 2011

AWM-NSF Conference Travel Grant: *New Directions in Geometric Group Theory* in Brisbane, Australia, Dec 2009

BMCC/CUNY Faculty Development Grant: *Homology of the Braided Thompson Groups*, summer 2009

PSC CUNY Research Award: *Metric Properties of Generalizations of Thompson’s Group F* , 2009-2010

CUNY Scholar Incentive Award, to support mathematics research in Berlin during the 2007-2008 academic year

PSC CUNY Research Award, to support archival research in Stockholm, Moscow, and St. Petersburg for a play about mathematician Sofia Kovalevskaya, 2004-2005

Invited Talks and Colloquia

Internationally and Nationally:

AAUP Annual Conference on the State of Higher Education, *Who Should be Allowed to Take Classes Online? The Pro's and Con's of Restricting Online Enrollment*, Washington, D.C. 6/9-12/10.

NYSMATYC Region IV Fall Conference, *Rotation Distance and the Thompson-Stein Groups: Student and Faculty Research Projects*, New York, NY 11/1/09

NYSMATYC Region IV Fall Conference, *Teaching with Mymathlab: Examples of Successful Implementation*, New York, NY 11/1/09

Geometric Group Theory Davis 60 Conference, *The Distortion of Thompson Groups in the Thompson-Stein groups*, Będlewo, Poland 6/18/09.

International Conference on Geometric and Combinatorial Methods in Group Theory and Semigroup Theory, University of Nebraska-Lincoln, *Subgroup Distortion in the Generalized Thompson Groups*, 5/20/09.

Cornell University, Topology & Geometric Group Theory Seminar, *Subgroup Distortion in the Generalized Thompson Groups*, 4/28/09.

AMS 2009 Spring Western Section Meeting (invited by organizers of Special Session on Recent Progress in Geometric Group Theory), *Unusual Geodesics in Generalizations of Thompson's Group*, San Francisco, CA, 4/25/09.

Geometric and Asymptotic Group Theory with Applications Conference, *Subgroup Distortion in Groups of Piecewise-linear Homeomorphisms*, Stevens Institute of Technology, Hoboken, NJ, 3/12/09.

AMS 2008 Fall Eastern Section Meeting (invited by organizers of Special Session on Geometric Group Theory and Topology), *Distortion of Subgroups of the Generalized Thompson groups $F(n_1, \dots, n_k)$* , Middletown, CT, 10/11/08.

Centre International de Rencontres Mathématiques, Thompson's Groups: New Developments and Interfaces, *Metric behavior of generalizations of Thompson's group F* , Luminy, France, 6/05/08.

Centre de Recerca Matemàtica, Group Theory seminar (invited talk), *Metric Properties of Some Groups of Piecewise-Linear Homeomorphisms*, Barcelona, Spain, 5/22/08.

Université de Caen, Algebra and Geometry seminar (invited talk), *Metric Properties of generalizations of Thompson's Group*, Caen, France, 3/04/08.

Johann Wolfgang Goethe-University Institute for Mathematics, Geometric Methods in Group Theory seminar (invited talk), *Tree-pair Diagram Representatives, a Normal Form, and Estimating the Metric for generalizations of Thompson's Group*, Frankfurt am Main, Germany, 11/3/07.

University of Dortmund Conference on Combinatorial and Geometric Group Theory with Applications, *Using Tree-Pair Diagrams to Represent Elements of Thompson's Group $F(n,m)$* , Dortmund, Germany, 8/31/07.

AMS 2007 Spring Central Section Meeting (invited by organizers of Special Session on Combinatorial and Geometric Group Theory), *Using tree-pair diagrams to represent elements of Thompson's Group $F(n+1,m+1)$* , Oxford, OH, 3/17/07. (This talk was invited and prepared, but because of flight cancellations at JFK due to icy weather, I was unable to give the talk in person.)

AMS 2007 Spring Eastern Section Meeting, *A Normal Form for elements of Thompson's Group $F(n+1,m+1)$* , Hoboken, NJ, 4/14/07.

AMS 2006 Spring Eastern Section Meeting (invited by organizer of Special Session on Geometric Methods in Group Theory and Topology), *Thompson's Group $F(p+1)$ is not Almost Convex*, Durham, NH, 4/21/06

AMATYC 2005 National Conference, *What I Wish I Had Known When I Started: Tools for Teaching Online* (2 hour workshop), San Diego, 11/10/05.

AMATYC 2005 National Conference, *Before, During, and After Teaching Math Online* (panel), San Diego, 11/10/05.

AMATYC 2005 National Conference, *Reflections of First-Time Online Teachers*, San Diego, 11/10/05.

City University of New York Asian-American/Asian Research Institute, *Chinese Methods of Proof*, 11/12/04.

At BMCC:

BMCC Mathematics Colloquium, *Rotation Distance and Thompson's Groups*, 9/16/09.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for the Mathematics Teaching*, 8/25/09.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for the Mathematics Teaching*, 8/26/09.

BMCC TLC, *Study Abroad Information Session for Prospective Faculty Coordinators*, 5/5/09.

BMCC TLC, *Geometry and Thompson's Groups*, 3/3/09.

BMCC Adjunct Faculty Training, *Technology Resources for the Mathematics Department*, 1/22/09.

BMCC Title V Academic Advising Training Workshop, *Panel Presentation*, 1/21/09.

BMCC Adjunct Faculty Training, *Technology Resources for the Mathematics Department*, 1/21/09.

BMCC Distance Learning Faculty Training 2008, *Mapping Out Your Course and Setting up the Online Learning Environment*, 9/19/08.

BMCC Teaching and Learning Center, *Mentoring on the Run: Redefining the Practice*, 4/25/07.

BMCC Distance Learning Faculty Training 2006, *Laying out a course map: Content, Structure and Navigation*, 9/29/06.

BMCC Integrating Technology into the Classroom Faculty Training 2006, *Creating an Interactive Syllabus*, 6/6/06.

BMCC Distance Learning Faculty Training 2005, *Course Maps and Interactive Course Structure*, 9/9/05.

BMCC Teaching and Learning Center, *Addressing Students Misconceptions about Probability in Introductory College Statistics*, 4/14/05.

BMCC Technology Day 2005, *Using Macromedia Flash to Animate Mathematical Proofs*, 3/30/05.

BMCC Distance Learning Faculty Training 2004, *Making Distance Learning Webpages More Interactive*, 10/22/04.

BMCC Teaching Learning Center, *Chinese Methods of Proof*, 9/29/04.

Served as President:

NYSMATYC Region IV Fall Conference, New York, NY 11/1/09

AMATYC 2005 National Conference, San Diego, 11/11/05.

Workshop/Special Session Organization:

Special Session Organizer, **AMS 2010 Spring Eastern Section Meeting**, *Logic and Groups*, Newark, NJ 5/22-23/10

Special Session Organizer, **NYSMATYC Region IV Fall Conference**, *Special Session on Implementation of Mymathlab and Webassign in the Classroom*, New York, NY 11/1/09

Local Director, **AMATYC Right Stuff College Algebra Workshop**, 5/8/09
Coordinated all logistics for hosting AMATYC travelling workshop on college algebra including applying to host the workshop, setting schedules, reserving necessary space and resources, recruiting faculty to participate, and following up with the implementation and assessment of workshop tools and techniques in MAT 056.

Honors and Awards

Nominated for the **Feliks Gross Endowment Award**, 2009

Program for Women in Mathematics at the **Institute for Advanced Study**, 5/16-5/27/05

Fulbright-Hays program in China on mathematics education and history, 6/15-7/15/04

Master's Cup, 2000

A. Bartlett Giamatti Scholarship, 1999-2000

Walter G. Preston, Jr. Scholarship, 1999-2000

Edward Allen Colby Scholarship, 1998-1999

UOFC Fellowship, 1998-1999

Sudler Fellowship, 1998-1999

Tandy Technological Scholar, 1996

Claire Wladis

Student Mentoring

Barry Ahmed Tidiane (S-STEM project), *Using Linear Algebra to tackle the Lights Out Puzzle*, fall 2009

Michael Cunha, *Computation in the Thompson Groups*, fall 2009

Shengen Zhang (S-STEM project), *The Thompson-Stein Groups*, fall 2009

Gamal Ali (S-STEM project), *Using Linear Algebra to tackle the Lights Out Puzzle*, fall 2009

Albert Ng (S-STEM project), *Explorations in Classes of Groups: Solvable and Metabelian Groups, the Thompson groups*, fall 2009

Michael Cunha (S-STEM project), *Logic and Logic Circuits*, spring 2009

Shengen Zhang (S-STEM project), *Group Theory and Applications*, spring 2009

Owen O'Leary (S-STEM project), *Number Theory and its Applications to Cryptography*, fall 2008

Kayode Ramsay (Honors Program project, MAT 206: Precalculus), *Analysis of Hedge Fund Investment Return over Different Historical Periods*, fall 2008

Arsalan Malik, *The Use of Trigonometric Functions in Architectural Design*, fall 2008

Service

To the college/university:

Co-chair, Study Abroad committee, 2006-2007, 2008-2009 (*acting co-chair*)

Oversight of the college's study abroad programs: writing student handbook and faculty handbook for study abroad programs; reviewing applications for study abroad programs and selecting those which are to be funded and overseeing the administration of these programs prior to the program start date; revising application guidelines and requirements for the program; automating application materials; and building program website

Distance Learning Taskforce member, 2008-2009

Charged with reviewing the college's Distance Learning program through student and faculty interviews and focus groups and analysis of existing data; interviewing key personnel at other institutions with online learning programs and reviewing the literature on distance learning in order to establish best practices; and providing a written report aimed at improving the quality of the program

Faculty mentor, Title V Program, 2005-present

Co-authored mathematics section of faculty advisement handbook, gave several presentations about mentoring techniques throughout the college, and served as a resource for current faculty advisors

WI Associate, Writing Across the Curriculum, 2008-present

Developed a teaching portfolio for my writing-intensive classes, led WAC workshops, recruited WAC faculty, developed online resources for WAC faculty, selected writing fellows, and served as a mentor for current WAC faculty

Head of Mathematics Writing Across the Curriculum working group, 2006-2007

Established criteria for mathematics courses to be considered WI at BMCC and assembled a packet of writing-intensive materials for mathematics courses which addresses common issues instructors face in teaching writing-intensive math courses

MAT 200 - CSC 230 Working Group member, 2006-2007

Charged with articulating MAT 200 and CSC 230 to support changes in the computer science curriculum

Faculty advisor, Title V Program, 2005-present

One-on-one mentoring and advisement of approximately 25 students each year

Middle States subcommittee on Related Educational Activities, member, 2005-2008

Chair, subcommittee on Noncredit Offerings

Creation of a comprehensive report about the state of non-credit offerings at the college (data collection, interviews, analysis of relevant documents, analysis)

Chair, subcommittee on Experiential Learning

Creation of a comprehensive report about how credit is granted for experiential learning at the college (data collection, interviews, analysis of relevant documents, analysis)

Caucus leader, Mathematics, CIS and Business caucus, BMCC Technology Day, 3/29/06

Lead discussion and analysis of the current technological facilities, policies and administrative support at the colleges for the mathematics, computer information systems and business departments and submitted a report containing suggestions for improvement in these areas

To the mathematics department:

Remedial Coordinator and Chair, Remediation Committee, 2009-present

Major renovation of the program in fall 2009: developed and integrated online course materials into every section; created ongoing training for instructors in new technology and pedagogy; created departmental midterm exams and practice materials; coordinated the use of Laptop carts for the first time for use in sections meeting in classrooms rather than computer labs; and founded an intervention program for failing students.

Management of approximately 225+ remedial course sections each semester:

determination of all policy concerning placement, testing, grading, and remedial course procedures, including syllabi revision and textbook selection; scheduling of computerized placement examinations for each section twice each semester; creation of practice materials, departmental midterm, and departmental final exam for each course; creation of extensive course study materials for students; new college-wide implementation of technology, including use of mymathlab and webassign for all remedial sections and classroom use of laptops.

Co-Founder and Co-Coordinator, Math Colloquium, 2009-present

Research colloquium which meets twice per month and focuses on research, founded with the aim of increasing research collaboration among faculty members at BMCC and exposing advanced students to research.

Faculty Advisor, Instrument of Progression (IPC) Student Club, 2009-present

The IPC is a math tutoring club in which more advanced BMCC students tutor their peers, with the aim of “promoting healthy attitudes towards mathematics and preventing students’ repeating of mathematics courses,” among other goals.

Chair, Technology/Web Committee, 2008-present

Creation and maintenance of a mathematics department website on Blackboard to host resources for faculty in teaching, learning, mentoring, research, publication, and professional development; Coordination of the creation of individual faculty webpages for the first time; Sponsorship of workshops on the use of technology aimed at Math faculty; Major redesign, update, maintenance, and expansion of the mathematics department website to include pages on Remediation/Testing, Internships, Careers in Mathematics, the Mathematics Major, Student Research Opportunities, Events, and FAQs for the first time.

Chair, Math 200-Level Committee, 2005-2007, 2008-present

Revision of all math 200-level course syllabi, modification of the math major curriculum to include Discrete Mathematics as a math major elective

Chair, Mathematics for Health Sciences and Respiratory Therapy Committee, 2006-2007

Revision of the curriculum for Mathematics for Health Science, revision of the syllabi for all mathematics courses related to the health science, and development of review packet materials for Mathematics for Health Sciences

Curriculum Committee member 2008-present

Publications/Grant Committee member 2008-present

Technology/Web Committee member 2005-present

Calculus Committee member, 2003-2005

Remediation Committee member, 2003-2005

Technology Committee member, 2004-2005

Web Committee member, 2004-2005

Quantitative Reasoning Committee, member, 2003-2004

To the profession:

Reviewer, American Mathematical Society Mathematical Reviews

Reviewer and Consultant, Dantes standardized test, Fundamentals of College Algebra

Reviewer and Consultant, Dantes standardized test, Principles of Statistics

Reviewer, National League for Nursing, pre-admission examinations for nursing students

Consultant, McGraw-Hill standardized tests in arithmetic and geometry for 6th graders

Reviewer, *Beginning Algebra*, (Edition 6e) by Hutchison, McGraw-Hill Publishers.

Reviewer, *Basic College Mathematics* by Ignacio Bello, McGraw-Hill Publishers.

Reviewer, *Elementary Statistics* (Edition 10e) by Mario Triola, Addison-Wesley Publishers.

Reviewer, *MathZone course management software*, McGraw-Hill Publishers.

Reviewer, American Mathematical Association of Two-Year Colleges (AMATYC) Beyond Crossroads

AMATYC Distance Learning Committee member

AMATYC Technology in Mathematics Education Committee member

Curriculum Development

Developed two online courses for BMCC/CUNY, including all curriculum materials:

Fundamentals of Mathematics I and Mathematics for Health Sciences

- *Curriculum materials include: lectures, illustrations, examples, animations, question banks and technical resources.*
- *This includes contributions to the Distance Learning Faculty Handbook and several presentations to other faculty during Distance Learning and Technology Faculty Training Sessions.*
- *Materials from these courses were requested and included in the BMCC Gallery of Learning Objects.*

Developed online course for Online Baccalaureate Program, CUNY School of Professional Studies:

Fundamentals of Mathematics

I was invited to develop this course for the Online Baccalaureate degree program based on one of the online courses which I developed for BMCC, and it is currently one of the required courses in the program's General Education Curriculum.

Developed curriculum to address common student misconceptions about probability:

- *I participated in a study of 3 common student misconceptions in statistics; in the process of addressing these targeted misconceptions, I developed a series of problem-solving-centered class projects that involve small group and class discussion, and analytical writing done individually.*
- *Students showed improvement in all 3 misconceptions and showed a statistically significant higher improvement rate when compared to other students in the study in 2 of the 3 misconceptions.*

Developed four writing intensive courses: Introduction to Statistics, Precalculus, Mathematics for Health Sciences, and Fundamentals of Mathematics I

Materials from these courses were requested and included:

- *on the BMCC Writing Across the Curriculum resources for instructors website*
- *in a collection of writing intensive mathematics assignments for distribution as a reference for mathematics "writing across the curriculum" teachers.*

Developed a series of animations of geometric proofs

Appropriate for use in remedial math through precalculus, and can be used either as instructor presented illustrations or as interactive presentations that the student can access independently.

Courses Taught

Introduction to Statistics, Fundamentals of Mathematics I, Introduction to Discrete Mathematics, Mathematics for Health Sciences, Arithmetic, Basic Arithmetic and Algebra, Elementary Algebra, Intermediate Algebra and Trigonometry, Precalculus, Calculus I, Calculus II, Calculus III, Linear Algebra, Abstract Algebra

Professional Organizations

American Mathematical Society, member, 2001-present

Association for Women in Mathematics, member, 2003-present

American Mathematical Association of Two-Year Colleges, member, 2003-present

New York State Mathematics Association of Two-Year Colleges, member, 2003-present