

Claire Wladis

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City University of New York Graduate Center
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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

The Graduate Center at the City University of New York, Urban Education, professor, 5/15-present
Borough of Manhattan Community College at the City University of New York (BMCC/CUNY), Mathematics, professor, 9/13-present
BMCC/CUNY, Mathematics, associate professor, 9/10-8/2013
BMCC/CUNY, Mathematics, assistant professor, 9/07-8/10
BMCC/CUNY, Mathematics, instructor, 9/03-9/07
BMCC/CUNY, Mathematics, adjunct instructor, 1/03-8/03
LaGuardia Community College at the 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

A. Articles submitted for publication (peer-reviewed)

- Wladis, C.**, Hachey, A.C. and Conway, K.M. Do online courses have lower completion rates? Evidence from Germany and the United States. *Manuscript submitted for publication.*
- Hachey, A.C., **Wladis, C.** and Conway, K.M. A Study of Online Attrition: Why are they leaving? *Manuscript submitted for publication.*
- Wladis, C.**, Hachey, A.C. and Conway, K.M. Are online courses getting a bad rap? Differences in outcomes when controlling for complex student characteristics. *Manuscript submitted for publication.*
- Wladis, C.**, Conway, K.M. and Hachey, A.C. Time Poverty and Parenthood: Who Has Time for College? *Manuscript submitted for publication.*
- Wladis, C.** and Mesa, V. What Can Happen When Community College Practitioners Lead Research Projects? The Case of CUNY, *Manuscript submitted for publication.*
- Wladis, C.**, Conway, K.M and Hachey, A.C. Non-Traditional Students and Online Enrollment. *Manuscript submitted for publication.*
- Wladis, C.** and Morgulis, A. A randomized cluster trial of scripted collaborative learning in intermediate algebra, *Manuscript submitted for publication.*

B. Articles (peer-reviewed)

- Wladis, C.**, Hachey, A.C. and Conway, K.M. (In Press) No time for college? An investigation of time poverty and parenthood. *To appear in the Journal of Higher Education.*
- Wladis, C.**, Hachey, A. C. and Conway, K. (2017) Online STEM and mathematics course-taking: Retention and Access, In A. Volungeviciene, A. Szűcs (Eds.), *Diversity Matters! Proceedings of the EDEN 2017 Annual Conference*. Budapest, Hungary: European Distance and E-Learning Network (EDEN), 296-305.

- Wladis, C., Smith, J. and Duranczyk, I. (2017).** Research on Non-university Tertiary Mathematics. In G. Kaiser (Ed.), *Proceedings of the 13th International Congress on Mathematical Education*. Hamburg, Germany: Springer International Publishing, 693-694.
- Wladis, C., Offenholley, K., Lee, J. K., Dawes, D. and Licwinko, S. (2017).** An instructor-generated concept framework for elementary algebra in the tertiary context. In T. Dooley, V. Durand-Guerrier & G. Guedet (Eds.), *Proceedings of the Tenth Congress of the European Society for Research in Mathematics Education*. Dublin, Ireland: Institute of Education Dublin City University and ERME, 557-558.
- Wladis, C., Offenholley, K., Licwinko, S., Dawes, D. and Lee, J. K. (2017)** Theoretical Framework of Algebraic Concepts for Elementary Algebra, In T. Fukawa-Connelly, N. Engelke Infante, M. Wawro, S. Brown (Eds.), *Proceedings of the 20th Annual Conference on Research in Undergraduate Mathematics Education*. San Diego, CA, 1510-1516.
- Wladis, C., Hachey, A. C. and Conway, K. (2017)** Online STEM and mathematics course-taking: Retention and Access, In T. Fukawa-Connelly, N. Engelke Infante, M. Wawro, S. Brown (Eds.), *Proceedings of the 20th Annual Conference on Research in Undergraduate Mathematics Education*. San Diego, CA, 1695-1697.
- Wladis, C., Conway, K.M and Hachey, A.C. (2016).** Assessing Readiness for Online Education – Research Models for Identifying Students at Risk. *Online Learning [Special Section: Best Papers Presented at the OLC 21st International Conference on Online Learning and Innovate 2016]*, 20(3), 97-109.
- Wladis, C. and Samuels, J. (2016)** Do online readiness surveys do what they claim? Validity, reliability, and subsequent student enrollment decisions. *Computers & Education*, 98, 39-56. doi: 10.1016/j.compedu.2016.03.001
- Wladis, C., Hachey, A. C. and Conway, K. (2016)** Student characteristics and online retention: Preliminary investigation of factors relevant to mathematics course outcomes, In T. Fukawa-Connelly, N. Engelke Infante, M. Wawro, S. Brown (Eds.), *Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education*. Pittsburg, PA, 1442-1453.
- Wladis, C., Hachey, A. C. and Conway, K. (2015)** Which STEM Majors Enroll in Online Courses, and Why Should We Care? The Impact of Ethnicity, Gender, and Non-traditional Student Characteristics. *Computers & Education*, 87, 285-308. doi: 10.1016/j.compedu.2015.06.010
- Wladis, C., Conway, K.M and Hachey, A.C. (2015).** Using course-level factors as predictors of online course outcomes: A multilevel analysis at an urban community college. *Studies in Higher Education*. doi: 10.1080/03075079.2015.1045478
- Wladis, C., Conway, K.M and Hachey, A.C. (2015).** The Online STEM Classroom—Who Succeeds? An Exploration of the Impact of Ethnicity, Gender, and Non-traditional Student Characteristics in the Community College Context. *Community College Review*, 43(2):142-164. doi:10.1177/0091552115571729
- Wladis, C., Hachey, A.C. & Conway, K.M. (2014).** The representation of minority, female, and non-traditional STEM majors in the online environment at community colleges: A nationally representative study. *Community College Review*, 43(1), 89-114. doi: 10.1177/0091552114555904
- Hachey, A. C., **Wladis, C.** and Conway, K. (2014). Prior online course experience and G.P.A. as predictors of subsequent online STEM course outcomes, *The Internet and Higher Education*, 25, 11-17. doi:10.1016/j.iheduc.2014.10.003
- Wladis, C., Hachey, A.C. & Conway, K.M. (2014).** An investigation of course-level factors as predictors of online STEM course outcomes. *Computers & Education*, 77, 145-150. doi: 10.1016/j.compedu.2014.04.015
- Wladis, C., Hachey, A. C. and Conway, K. (2014).** The role of enrollment choice in online education: Course selection rationale and course difficulty as factors affecting retention, *Journal of Asynchronous Learning Networks*, 18(3). <http://olj.onlinelearningconsortium.org/index.php/jaln/article/view/391>

- Hachey, A. C., **Wladis, C.** and Conway, K. (2014). Do prior online course outcomes provide more information than G.P.A. alone in predicting subsequent online course grades and retention? An observational study at an urban community college, *Computers & Education*. 72, 59-67. doi: <http://dx.doi.org/10.1016/j.compedu.2013.10.012>
- Mesa, V., **Wladis, C.** and Watkins, L. (2014). Research Problems in Community College Mathematics Education: Testing the Boundaries of K–12 Research, *Journal of Research in Mathematics Education*. 45(2), 173-193. doi: 10.5951/jresmetheduc.45.2.0173
- Wladis, C.**, Offenholley, K., & George, M. (2014). Leveraging Technology to Improve Developmental Mathematics Course Completion: Evaluation of a Large-Scale Intervention. *Community College Journal of Research and Practice*, 38(12), 1083-1096. doi:10.1080/10668926.2012.745100
- Wladis, C.**, Hachey, A.C., Conway, K.M. (2013). Are online students in STEM (science, technology, engineering and mathematics) courses at greater risk of non-success? *American Journal of Educational Studies*. 6(1), 65-84.
- Hachey, A.C., **Wladis, C.** & Conway, K.M. (2013) Balancing retention and access in online courses: restricting enrollment... Is it worth the cost? *Journal of College Student Retention: Research, Theory & Practice*, 15(1), 9-36.
- Hachey, A.C., Conway, K.M. and **Wladis, C.** (2013). Community colleges and underappreciated assets: Using institutional data to promote success in online learning. *Online Journal of Distance Learning Administration*, 16(1), Spring.
- Wladis, C.** and Morgulis, A. (2012) Increasing student success in intermediate algebra through collaborative learning at a diverse urban community college. In S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman (Eds.), *Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education*, (Vol.2,). Portland, Oregon, 310-319.
- Wladis, C.**, Hachey, A. C. and Conway, K. (2012) An analysis of the effect of the online environment on STEM student success, In S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman (Eds.), *Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education*, (Vol.2). Portland, Oregon, 291-300.
- Wladis, C.**, Offenholley, K. and George, M. (2012) Identifying developmental students who are at-risk: An intervention using computer-assisted instruction at a large urban community college. In S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman (Eds.), *Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education*, (Vol.2). Portland, Oregon, 301-309.
- Hachey, A. C., **Wladis, C.** and Conway, K. (2012) Is the second time the charm? Investigating trends in online re-enrollment, retention and success. *The Journal of Educators Online*, 9(1), 1-25.
- Conway, K., **Wladis, C.** and Hachey, A. C. (2011) Minority student access in the online environment, *Hispanic Educational Technologies Services (HETs) Journal, II*, retrieved from <http://www.hets.org/journal/articles/68-minority-student-access-in-the-online-environment>.
- Conway, K., Hachey, A. C. and **Wladis, C.** (2011). Growth of online education in a community college, *Academic Exchange Quarterly*, 15(3), 96-101.
- Wladis, C.** (2012) The word problem and the metric for generalizations of Thompson's group F on more than one integer, *Journal of the London Mathematical Society*, 85(2), 301-322.
- Wladis, C.** (2011) Cyclic subgroups are quasi-isometrically embedded in the Thompson-Stein groups," *International Journal of Algebra and Computation (Proceedings of the International Conference on Geometric and Combinatoric Methods in Group Theory and Semigroup Theory)*, 22(1&2), 365-385.
- Wladis, C.** (2011) Thompson's groups are distorted in the Thompson-Stein groups, *Pacific Journal of Mathematics* 250(2), 473-485.

- Wladis, C.** (2009) Unusual geodesics in Thompson's group $F(n)$, *Illinois Journal of Mathematics*, 53(2), 483-514.
- Wladis, C.** (2007) Thompson's group $F(n)$ is not minimally almost convex, *New York Journal of Mathematics*, 13, 437-481.

C. Book chapters

- Conway, K.L., Hachey, A.C. and **Wladis, C.W.** (2014). A new diaspora: Latino(a)s in the online environment. In Y. Medina and A. D. Macaya (Eds.). *Latinos on the East Coast: A critical reader*. NY, NY: Peter Lang, 120-138.

Research Activities and Grant Writing

Grants Received

- PI, NSF EHR Core Grant:** *Can Student Characteristics be Used to Effectively Identify Students At-Risk in the Online STEM Environment?*, 2015-2018.
- PI, BMCC/CUNY Faculty Development Grant:** *Validation of the Elementary Algebra Concept Inventory*, 2016.
- PI, Deutscher Akademischer Austauschdienst/ German Academic Exchange Service (DAAD) Research Visit Grant for Faculty:** *Online course-taking, access, and persistence in higher education in the U.S. and Germany*, fall 2014.
- PI, CUNY Fellowship Award:** *Online course-taking, access, and persistence in higher education in the U.S. and Germany*, 2014-2015.
- PI, American Educational Research Association (AERA) Research Award:** *Online STEM Students At-Risk: Building a Model of Online STEM Student Retention at the Community College*, 2012-2014.
- Co-PI, CUNY Community College Collaborative Incentive Research Grant:** *An Investigation of Prior Experience and Course Type as Factors Affecting Online STEM Student Retention and Success*, 2012-2013.
- PI, BMCC/CUNY Faculty Development Grant:** *Factors Determining Online Student Enrollment: Evaluation of a Large-Scale National Dataset*, 2013.
- PI, PSC CUNY Research Award, Traditional B:** *The Role of Self-Selection in Online Student Persistence at the Community College: Are Restrictive Enrollment Policies Justified?*, 2013-2014.
- Site Manager, Spencer Foundation Grant:** *Mathematics Remediation at CUNY: Experimental Comparisons of Accelerated and Traditional Delivery Methods*, 2013-2014.
- Site Manager, CUNY OAA Funded Research:** *Mathematics Remediation at CUNY: Experimental Comparisons of Accelerated and Traditional Delivery Methods*, 2011-2013.
- PI, PSC CUNY Research Award, Traditional B:** *Using a Binary Logistic Regression Model to Identify Online Courses in Greatest Need of Supplemental Student Support*, 2012-2013.
- PI, PSC CUNY Research Award, Traditional B:** *Assessing Online Students at Risk: Building a Better Predictive Model for Online Course Attrition*, 2011-2012.
- This application was requested by the Research Foundation as an “excellent example” application to be included in the list of sample PSC CUNY applications available online.
- PI, BMCC/CUNY Title V Faculty Research Grant:** *Assessing Online Students at Risk: Building a Better Predictive Model for Online Course Attrition*, 2011.
- PI, CUNY Improving Undergraduate Mathematics Learning Grant:** *Increasing Student Success and Retention in Mathematics through Student-Centered Instruction and Collaborative Learning*, Jan 2010 – June 2011.

PI, Association of Women in Mathematics-NSF Conference Travel Grant: *New Directions in Geometric Group Theory* in Brisbane, Australia, Dec 2009.

William Stewart Travel Award, 2010.

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

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

PI, CUNY Scholar Incentive Award, *Metric Properties and Cryptographic Applications of the Braided Thompson Groups*, 2007-2008.

PI, PSC CUNY Research Award: *Full Length Dramatization of the life of Mathematician Sofya Kovalevskaja*, 2004-2005.

Honors and Awards

Nominated for the **Feliks Gross Endowment Award**, 2009 and 2010

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

Professional Activities

Invited Talks and Colloquia: Internationally and Nationally

National Council on Measurement in Education (NCME) Annual Conference. *Explanatory Item Response Modeling of an Algebra Concept Inventory*, New York, NY, 4/14/18.

American Educational Research Association (AERA) Annual Conference. *Attrition in Online versus Face-to-face Courses: Why are they leaving?*, New York, NY, 4/18.

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *Which Concepts are Fundamental to Elementary Algebra in the College Context? An instructor perspective*, San Francisco, CA, 11/9/17.

European Conference on Education (ECE2017) Conference, *Differences in online versus face-to-face course outcomes: Controlling for affective and "life" factors*, Brighton, UK, 6/30-7/2/17

European Distance Education Network (EDEN) Annual Conference, *Factors that predict differential online versus face-to-face course outcomes: Evidence from Germany and the United States*, Jönköping, Sweden, 6/13-16/17

American Educational Research Association (AERA) Annual Conference. *Online versus Face-to-Face Course Outcomes: Controlling for relevant student characteristics and specific course taken*, San Antonio, TX, 4/28/17.

Council for the Study of Community Colleges (CSCC) Annual Conference, *A Fresh Look at Community College Mathematics Instruction*, Fort Worth, TX, 4/7/17.

Council for the Study of Community Colleges (CSCC) Annual Conference, *Comparing Online versus Face-to-Face Courses: Is there a difference in outcomes for community college students?*, Fort Worth, TX, 4/8/17.

Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Online STEM and mathematics course-taking: Retention and Access*, San Diego, CA, 2/23/17.

Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Instructor-Generated Concepts Framework for Elementary Algebra in the College Context*, San Diego, CA, 2/25/17.

Congress of European Research in Mathematics Education (CERME), 2017 Conference, *Retention and access in online mathematics and science courses*, Dublin, Ireland, 2/4/17.

Congress of European Research in Mathematics Education (CERME), 2017 Conference, *An instructor-generated concept framework for elementary algebra in the tertiary context*, Dublin, Ireland, 2/3/17.

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *Student characteristics that predict online math retention and completion*, Denver, CO, 11/17/16.

13th International Congress on Mathematics Education (ICME), *Educational Research and Evidence-Based Decision-making at Community Colleges: The Case of CUNY*, Hamburg, Germany, 7/26/16.

NSF Envisioning the Future of Undergraduate STEM Education Symposium, *Who Succeeds Online? Using Student Characteristics to Predict Online Versus Face-to-Face Attrition*, Washington, DC, 4/28/16.

Council for the Study of Community Colleges (CSCC) Annual Conference, *Time Poverty and the College Outcomes of Student Parents at Community Colleges*, Plano, TX, 4/2/16.

Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Student characteristics and online retention: Preliminary investigation of factors relevant to mathematics course outcomes*, Pittsburg, PA 2/26/16.

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *The Elementary Algebra Concept Inventory: Development and Validation*, New Orleans, LA, 11/19/15.

Council for the Study of Community Colleges (CSCC) Annual Meeting, *The role of enrollment choice in online education: Course selection rationale and course difficulty as factors*. Washington. D.C., 4/5/14.

American Educational Research Association (AERA) Grants Fall Research Conference, invited talk. *Student Characteristics, Online Enrollment and Online Course Outcomes for Community College STEM Majors*, Washington, DC, 10/11/13.

American Educational Research Association (AERA) Annual Conference, invited poster session. *Does the online environment increase access for minorities and women in STEM fields at community colleges?*, San Francisco, CA, 4/28/13.

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *Improving Developmental Pass Rates Using Online Intervention*, Jacksonville, FL, 11/11/12.

CUNY 2012 Mathematics Conference on Effective Instructional Strategies, *Increasing Student Success and Retention in Mathematics through Student-centered Instruction and Collaborative Learning*, New York, NY 5/18/12.

Mathematical Association of America (MAA) Metro New York Sectional Meeting, *Scripted Collaborative Learning in Intermediate Algebra*, New York, NY 5/5/12.

Mathematical Association of America (MAA) Metro New York Sectional Meeting, *Using Technology and Midterm Assessment to Improve Successful Completion of Developmental Mathematics Courses*, New York, NY 5/5/12.

Mathematical Association of America (MAA) Metro New York Sectional Meeting, *Minority Enrollments and Success Rates in Online Mathematics and STEM Courses*, New York, NY 5/5/12.

- Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Increasing Student Success in Intermediate Algebra through Collaborative Learning at a Diverse Urban Community College*, Portland, OR 2/23-2/25/12.**
- Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Are Online Students in STEM Courses at Greater Risk of Non-Success?* Portland, OR 2/23-2/25/12.**
- Mathematical Association of America (MAA) Research in Undergraduate Mathematics Education (RUME) Conference, *Identifying Developmental Students Who are At-Risk: An Intervention Using Computer-Assisted Instruction at a Large Urban Community College*, Portland, OR 2/23-2/25/12.**
- Black, Brown and College Bound Summit: Meeting the Challenge of Higher Education, *Black and Hispanic Males in the Online STEM Environment*, Tampa, FL 2/29-3/3/12.**
- Mathematical Association of America (MAA)/American Mathematical Association (AMS) National Joint Mathematics Meetings (special session on Research on the Teaching and Learning of Undergraduate Mathematics), *A Controlled Study of Collaborative Learning in Intermediate Algebra*, Boston, MA 1/5/12.**
- Mathematical Association of America (MAA)/American Mathematical Association (AMS) National Joint Mathematics Meetings (special session on Preparing College Students for Calculus), *Preparing students for proofs and deeper conceptual thinking by implementing collaborative learning projects in Intermediate Algebra and Trigonometry*, Boston, MA 1/5/12.**
- New York Mathematical Association of Mathematics at Two-Year Colleges (NYSMATYC) Region IV Fall Conference, *A Controlled Study of Cooperative Learning in Intermediate Algebra: Lessons Learned*, Brentwood, NY 11/19/11.**
- New York Mathematical Association of Mathematics at Two-Year Colleges (NYSMATYC) Region IV Fall Conference, *STEM Courses in the Online Environment: Which Courses are at Greatest Risk of Higher Attrition?* Brentwood, NY 11/19/11.**
- New York Mathematical Association of Mathematics at Two-Year Colleges (NYSMATYC) Region IV Fall Conference, *Using Computer Assisted Instruction and Departmental Testing to Identify and Motivate Developmental Students at-Risk*, Brentwood, NY 11/19/11.**
- American Association of University Professors (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. 6/12/10.**
- New York Algebra Colloquium, *Finite presentability for subgroups of the Thompson-Stein groups*, CUNY Graduate Center, 4/23/2010.**
- New York Mathematical Association of Mathematics at Two-Year Colleges (NYSMATYC) Region IV Fall Conference, *Rotation Distance and the Thompson-Stein Groups: Student and Faculty Research Projects*, New York, NY 11/1/09**
- New York Mathematical Association of Mathematics at Two-Year Colleges (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.**

American Mathematical Society (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.

American Mathematical Society (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.

American Mathematical Society (AMS) 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.)

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

American Mathematical Society (AMS) 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

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *What I Wish I Had Known When I Started: Tools for Teaching Online* (2 hour workshop), San Diego, 11/10/05.

American Mathematical Association of Two-Year Colleges (AMATYC) National Conference, *Before, During, and After Teaching Math Online* (panel), San Diego, 11/10/05.

American Mathematical Association of Two-Year Colleges (AMATYC) 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.

Workshop/Special Session Organization

Workshop Leader, *Mentoring and Partnerships for Women in Research in Undergraduate Mathematics Education (MPWR) Transition from Mathematics to Mathematics Education Research Workshop*, San Diego, CA, 2/22/18.

Organizer, *Mathematical Association of America-Research in Undergraduate Mathematics Education (MAA-RUME) Special Interest Group on Research in Community College Mathematics Education*, San Diego, CA, 2/22/18.

Organizer, *Mathematical Association of America-Research in Undergraduate Mathematics Education (MAA-RUME) Special Interest Group on Research in Community College Mathematics Education*, San Diego, CA, 2/25/17.

Organizer, 13th Annual International Congress on Mathematical Education (ICME), Discussion Group on Research on Non-university Tertiary Mathematics, Hamburg, Germany, 7/26-29/16.

Organizer, Mathematical Association of America-Research in Undergraduate Mathematics Education (MAA-RUME) Special Interest Group on Research in Community College Mathematics Education, Pittsburg, PA, 2/25/16.

Organizer, Mathematical Association of America-Research in Undergraduate Mathematics Education (MAA-RUME) Special Interest Group on Research in Community College Mathematics Education, Denver, CO, 2/20-21/13.

Organizing Committee, Mathematical Association of America (MAA) 2012 Spring Sectional Meeting, New York, NY 5/5/12

Special Session Organizer, American Mathematical Society (AMS) 2010 Spring Eastern Section Meeting, Groups and Logic, Newark, NJ 5/22-23/10

Special Session Organizer, New York State Mathematics Association of Two-Year Colleges (NYSMATYC) Region IV Fall Conference, Special Session on Implementation of Mymathlab and Webassign in the Classroom, New York, NY 11/1/09

Local Director, American Mathematical Society of Two-Year Colleges (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

Talks/Workshops given at BMCC

Faculty Grant-writing Workshop, Examples of Successful Outside Grant Applications, and Tips for Writing a Successful Grant Proposal, 5/14/18.

Faculty Workshop on Publishing in Education and Mathematics, How to Pick a Journal, Prepare Papers for Publication, and Find Relevant Background Literature, 5/14/18.

BMCC Faculty Convocation, Special Session Leader, Online Learning: Adapting teaching approaches to address the challenges and enjoy the benefits of the online medium, 1/27/17.

BMCC Center for Excellence in Teaching, Learning and Scholarship, Online Learners at CUNY: Survey Results and Discussion (live presentation and webinar), 11/28/16.

BMCC Center for Excellence in Teaching, Learning and Scholarship, Retention in Online Courses, 12/10/15.

Faculty Grant-writing Workshop, Examples of Successful Outside Grant Applications, and Tips for Writing a Successful Grant Proposal, 12/9/15.

Faculty Workshop on Publishing in Education and Mathematics, How to Pick a Journal, Prepare Papers for Publication, and Find Relevant Background Literature, 11/11/15.

Faculty Workshop on Publishing in Education and Mathematics, How to Pick a Journal, Prepare Papers for Publication, and Find Relevant Background Literature, 4/10/13.

Faculty Grant-writing Workshop, Examples of Successful Outside Grant Applications, and Tips for Writing a Successful Grant Proposal, 4/3/13.

Faculty Grant-writing Workshop, Examples of Successful Outside Grant Applications, and Tips for Writing a Successful Grant Proposal, 11/30/11.

Faculty Workshop on Publishing in Education, *How to Pick a Journal, Prepare Papers for Publication, and Find Relevant Background Literature*, 11/16/11.

BMCC Adjunct Faculty Training, *Classroom Management*, 11/4/11.

BMCC Adjunct Faculty Training, *Student Motivation and Teaching Strategies*, 11/4/11.

BMCC Mathematics Colloquium, *Rotation Distance and Thompson's Groups*, 9/16/10.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for Mathematics Teaching*, 8/25/10.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for Mathematics Teaching*, 8/24/10.

BMCC Adjunct Faculty Training, *End-of-Semester Remediation Procedures*, 5/4/10 (two separate workshops).

BMCC Teaching and Learning Center, *Homology of the Braided Thompson Groups*, 3/11/10.

BMCC Adjunct Faculty Training, *Midterm Remediation Procedures*, 3/11/10.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for Mathematics Teaching*, 1/27/10.

BMCC Adjunct Faculty Training, *Remedial Course Procedures and Placement; Technology Resources for Mathematics Teaching*, 1/25/10.

BMCC Faculty Technology Training, *WebAssign Online Homework System Faculty Workshop*, 12/2/09 (two separate workshops).

BMCC Faculty Technology Training, *MyMathLab Online Homework System Faculty Workshop*, 11/18/09 (two separate workshops).

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*, 8/26/09.

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

BMCC Teaching Learning Center, *Study Abroad Information Session for Prospective Faculty Coordinators*, 5/5/09.

BMCC Teaching Learning Center, *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.

Student Guidance

Arun Ojha (C-STEP project), *Using Proof by Induction to Derive Summation Formulas*, fall 2011

L'Oreal Linwood (Honors project), *Complex Computations in Patient Care: Three Case Studies*, fall 2011

Kolton Zavocki (LS-AMP project), *Geometric Group Theory Techniques with Applications to Metric Properties of Thompson's Group and its Generalizations*, fall 2010

Albert Ng (S-STEM project), *Isolating Perry Metric in a Quality Cell*, spring 2010

Barry Ahmed Tidiane (S-STEM project), *Matrix Models for Game Theory*, spring 2010

Kolton Zavocki (LS-AMP project), *Geometric Group Theory Techniques with Applications to Metric Properties of Thompson's Group and its Generalizations*, spring 2010

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

Curriculum Development

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

Fundamentals of Mathematics I, Mathematics for Health Sciences, Calculus I

- *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 one of the required courses in the program's General Education Curriculum.

Developed collaborative learning curriculum for Intermediate Algebra:

- *I was the principal investigator for a study that involved the creation of eight collaborative learning projects which were integrated into the fundamental course structure of six pilot sections each semester.*
- *As a part of this project we also created online homework assignments and online course lectures.*

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

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.

College/University Service

Research/Scholarship/Creative Activity Advisory Committee, member, 2016-present

Faculty Development Grant, reviewer, 2017

Middle States Committee on Design and Delivery of the Student Learning Experience, member, 2016-2017

COACHE Taskforce, 2015-2016

Collecting data and forming recommendations to improve faculty satisfaction and retention at BMCC.

Chair, subcommittee on Research Support

Creation administration and analysis of college-wide online survey, focus groups and individual interviews of both current and former BMCC faculty; writing of comprehensive report summarizing findings and making recommendations for corresponding changes at the college.

E-Learning Faculty Research Stipend Committee, 2012-2013

Administering the E-Learning Faculty Research Stipend Awards including review of all proposals and selection of awards.

Co-Founder, Faculty Interest Group on Education Research, 2011-2013

Planning group meetings, collaborations, and talks relating to educational research at the college.

BMCC Strategic Steering Committee on Faculty Development and 21st Century Curriculum, 2011-2014

Identifying potential changes in BMCC's curriculum that would lead to training students that are better prepared to succeed in the 21st Century work environment, and then developing a plan of action to implement these changes.

Faculty Development Committee, 2011-2012

Planning BMCC Faculty Development Day and administering the Faculty Development Grant Awards including review of all proposals and selection of awards.

Technology Day Committee, 2009-present

Planning BMCC Technology Day.

Middle States Committee on Finance, 2011-2013

Creation of a comprehensive report about college finances (data collection, interviews, analysis of relevant documents, analysis).

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 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.

WI Associate, Writing Across the Curriculum, 2008-2012

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 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.

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 of the current technological facilities, policies and administrative support for the mathematics, computer science and business departments and submitted a report containing suggestions for improvement in these areas.

Department Service

Program Review Leader, Mathematics Department Academic Program Review (APR) Report, 2016-2017
Collection, formatting and analysis of data. Drafting report, including summarizing findings and making recommendations for improvement. Editing of final draft.

Chair, Publications and Grants Committee, 2011-2014

Ran workshops for faculty on publication and grant applications; revised publication lists for faculty; notified faculty of upcoming conferences and publication deadlines.

Remedial Coordinator and Chair, Remediation Committee, 2009-2010

Major renovation of the program: *Course passing rates improved by a significant margin in all remedial classes from spring to fall 2009; the passing rate for all courses improved by 55.5% (28.1% to 43.7%) over a single semester and by 63.8% (31.2% to 51.1%) if WU grades are excluded. In particular, approximately 702 remedial students passed their courses in fall 2009 who would otherwise have failed based on spring 2009 passing rates. These passing rates improved further in fall 2010, increasing by a further 8.6% and 6.5% respectively, to 47.4% and 54.4% respectively.*

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, 2009-2014

Research colloquium which meets one to two times per month and focuses on faculty research at BMCC, founded with the aim of increasing research collaboration among faculty members at BMCC.

Faculty Advisor, Instrument of Progression (IPC) Student Club, 2009-2011

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, Subcommittee for Mathematics Department Academic Program Planning/Review (APP Report)

Collection and analysis of data related to the developmental mathematics program; analysis and development of recommendations; feedback and editing of final report.

Chair, Technology/Web Committee, 2008-2012

Creation and maintenance of a mathematics department Blackboard site 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; Redesign, update, maintenance, and expansion of the mathematics department website.

Chair, Math 200-Level Committee, 2005-2007, 2008-2010

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.

Community Service

Grant Panel Reviewer, National Science Foundation, 2017, 2018

Writing Team, *Mathematical Association of America (MAA) Instructional Practices (IP) Guide* (Assessment Chapter), 2017

Writing Team, *American Mathematical Association of Two-Year Colleges (AMATYC) IMPACT (Improving Mathematical Prowess and College Teaching) Standards Document* (Implications for Research Chapter)

Reviewer, *Computers & Education*

Reviewer, *American Educational Research Journal*, American Educational Research Association

Reviewer, *Educational Evaluation and Policy Analysis*, American Educational Research Association

Reviewer, *Studies in Higher Education*

Reviewer, *Community College Review*

Reviewer, *The Internet and Higher Education*

Reviewer, *Higher Education*

Reviewer, *PRIMUS*

Executive Committee, *Northeast Regional Representative*, AMATYC's Research in Mathematics Education for Two-Year Colleges committee (RMETYC)

Mentor, Association for Women in Mathematics

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 Developmental Education Committee member

AMATYC Distance Learning Committee member

AMATYC Technology in Mathematics Education Committee member

Courses Taught

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