

CURRICULUM VITAE

Dr. Maria G. Gargova Fung

Department of Mathematics

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Education

Ph. D. in Mathematics, Cornell University (August 1999)

Thesis Title: *Twisted Torsion on Compact Hyperbolic Spaces: A Representation--theoretic Approach*

Thesis Advisor: Dr. Birgit Speh

M.S. in Mathematics, Cornell University (January 1996)

B. A. Summa Cum Laude with Highest Honors in Mathematics, Clark University (May 1993)

Minor Subject: Mathematics Education, Cornell University (1996-1999)

Research and Scholarly Interests

Mathematics Education, Teacher Preparation and Development, Pedagogy, Curricular Development, Gender Issues, Geometry, Expository Mathematics, Lie Theory

Professional and Honorary Society Memberships

Mathematical Association of America (MAA)

National Council of Teachers of Mathematics (NCTM)

Oregon Council of Teachers of Mathematics (OCTM)

American Mathematical Society (AMS)

Phi Beta Kappa

Teaching Experience

- Associate Professor, Fall 2005-
- Assistant Professor of Mathematics at Western Oregon University, 2001-Spring 2005
- Courses taught:
 - Mathematics for Elementary Teachers Sequence (Math 211, 212, 213)
 - Calculus 1, 2, and 3 (Math 251, 252, 253)
 - Introduction to Proof (Math 280)
 - Geometry (Math 337) and Axiomatic Geometry (Math 338)
 - Linear Algebra (Math 341)
 - Group Theory (Math 344)
 - Ring Theory (Math 345)
 - Manipulatives in Mathematics (Math 391)
 - College Algebra for Elementary Teachers (Math 392)
 - Probability and Statistics for Elementary Teachers (Math 393)
 - Elementary Integrated Mathematics (Math 395)
 - Elementary Problem Solving (Math 396)
 - Math and Maps (Honors Junior Seminar Math 407) co-taught with Dr. Sriram Khe (Geography)
 - Foundations of Mathematics (Math 482)
 - Geometry for Middle School Teachers (Math 494/594)
 - Calculus Concepts for Middle School Teachers (Math 495/595)
 - Visual Methods I and II for Teachers (Math 490/590): co-taught with Dr. Burton
 - Problem Solving for Middle School Teachers (Math 596)
- Assistant Professor of Mathematics at UW-Stout, 2000-2001 (Courses taught: College Algebra, Calculus 1, Calculus 2)
- Visiting Assistant Professor of Mathematics at Cornell University, 1999-2000 (Courses taught: Calculus 1, Calculus 2)

Activities and Training in Mathematics Education

- Mathematics Education Specialist at the Mathematics Department at WOU, 2001-present
- Co-organized and co-led a national MAA PREP Workshop with Dr. Laurie Burton, “Active Learning Approaches to Teaching Mathematics Content Courses for Elementary and Middle School Teachers,” July 7-11 2003, Western Oregon University
- Invited university faculty participant in the Oregon Mathematics Leaders Institute (OMLI) Project, co-designed and team-taught a three-week non-Euclidean Geometry course for in-service K-12 teachers, Summers 2005-2007

- Oregon Collaborative for the Excellence in the Preparation of Teachers (OCEPT) Fellow, revised and updated curricular materials for Probability and Statistics and Geometry for Teachers, 2001-2002
- Consultant on Prof. Donald Platz' (Department of Human Development, Family Living and Community Educational Services) Eisenhower Grant for Professional Development of Elementary Teachers Using a Reform Curriculum, UW-Stout, Summer 2001
- Training instructor for Mathematics Lab Tutors, UW-Stout, Spring 2001
- Elementary and middle school teacher in Bulgaria, 1988-1989

Recent Conference Presentations

“The Use of Protocols and Open-Ended Tasks in an Integrated Mathematics Course for K-8 Teachers,” *2007 Pacific MAA Meeting, Linfield College, April 2007*

“Using Protocols and Open-Ended Tasks to Promote Mathematics Discourse,” co-presented with Lyn Riverstone, *2007 ORMATYC Meeting, Lincoln City, OR, April 2007*

“Western Oregon University's Middle School Mathematics Focus,” co-presented with Dr. Laurie Burton and Dr. Klay Kruczek, *AMS-MAA Joint Mathematics Meeting, New Orleans, LA, January 5, 2007*

“Using non-Euclidean Geometry to Teach Euclidean Geometry to K--12 Teachers,” co-presented with Dr. Tevian Dray, *AMS-MAA Joint Mathematics Meeting, New Orleans, LA, January 6, 2007*

“Mathematical Explorations as a Gateway to High-school Content Mastery: a Number Theory Approach.,” *AMS-MAA Joint Mathematics Meeting, New Orleans, LA, January 6, 2007*

“Introduction to Proof as a Writing Intensive Course,” *Pacific Northwest MAA Meeting, Ashland, OR, June 23, 2006*

“Visual College Algebra for Teachers,” co-presented with Dr. Laurie Burton, *AMS-MAA Joint Winter Meetings 2005, Atlanta, GA, January 6, 2005*

“A Glimpse at Adjusting Two Mathematics Education Courses to Deepen Student Understanding at Western Oregon University,” co-presented with Dr. Laurie Burton, *AMS-MAA Joint Winter Meetings 2005, Atlanta, GA, January 7, 2005*

“Effective Writing Assignments: an Introduction,” *Annual ORMATYC Meeting, Lincoln City, OR, April 2004*

“Gathering and Effectively Using Manipulatives in the Classroom,” co-presented with Dr. Laurie Burton, *Future Teachers Conference, LBCC, Albany, OR, February 2004*

“A Glimpse at Some Cooperative Learning Strategies,” *Annual ORMATYC Meeting, Lincoln City, OR, April 2003*

“Enhancing the Use of Technology in the College Mathematics Classroom for K-8 Education Majors at Western Oregon University,” co-presented with Dr. Laurie Burton, Dr. Leon Roland, and Dr. Adele Schepige, *PT3 Showcase at WOU, February 2003*

“Western Oregon University’s Successful Teacher Preparation Program,” *National Joint Mathematics Meetings, Baltimore, MD, January 2003*

“A Capstone Experience for a Problem Solving Class for Pre-service K-8 Teachers,” *Pacific Northwest Annual Regional Meeting of the MAA, Walla Walla, WA, June 2003*

“College Mathematics: What Can We Do With This Course,” *MAA Math Fest, Madison, WI, August 2001*

“A Glimpse at Weyl’s Unitary Trick,” *AMS-MAA Joint Mathematics Meeting, New Orleans, LA, January 2001*

Lectures and Invited Presentations

“Dirt Bike Dilemma-an Introduction to Linear Programming,” 90-minute workshop for 9-12 teachers, Oregon Math Leaders Conference, McMinnville, Oregon, August 7, 2007

“A Glimpse into Japanese Temple Geometry,” 90-minute workshop for 9-12 teachers, Oregon Math Leaders Conference, McMinnville, Oregon, August 9, 2006

“Write and Solve Story Problems,” 90-minute workshop for K-6 teachers, Northwest Mathematics Conference, Portland, Oregon, October 13, 2005

“Topology Fun with Mobius and Euler,” 4-hour presentation for elementary school students, March 5 and 7, 2005, Western Oregon University

“Zeno’s Paradoxes Revisited,” Philosophy Club Lecture Series at Western Oregon University, May 2003

“The Online Mentoring Project,” Math Fest Summer MAA Meeting, Boulder, CO, August 2003, and TOTOM Annual Meeting, Pendleton, OR, September 2003

“Representations of an Extension of $SL(3, \mathbb{R})$ by an Outer Automorphism,” AMS Special Session on Lie Groups and Their Representations in Madison, WI, October 2002

Professional Activities

- Co-founder, and Club Advisor of the Mathematics Club at Western Oregon University (Fall 2002-2005)
- Advisor of the National Mathematics Honors Society Pi Mu Epsilon Chapter at Western Oregon University
- Co-PI on a successfully funded AWM grant to organize and to host a Sonya Kovalevsky Mathematics Day for high school girls on WOU's campus, held April 9th 2005
- Co-organizer of *Curriculum Materials for Preservice Middle School Mathematics Teachers*, MAA Session at the National Joint Meeting in San Diego, CA, January 2008
- Co-organizer of *Content Courses for the Mathematical Education of Middle School Teachers*, MAA Session at the National Joint Meeting in New Orleans, LA, January 2007
- Co-organizer of *Family Issues Panel*, Project NExT Session at the Pacific Northwest Meeting of MAA in Walla Walla, WA, June 2003
- Co-organizer of *Courses and Projects Addressing the Shortage of Teachers*, MAA Session at the National Joint Meeting in Baltimore, MD, January 2003
- Co-organizer of *Motivating Students*, Project NExT session at Mathematics Fest Meeting, Madison, WI, August 2001
- Co-organizer of *Advising Students Based on Their Career Goals*, Project NExT session at Joint Mathematics Meeting, New Orleans, LA, January 2001

Professional Service

- Member of the Organizing Committee of the Northwest Mathematics Conference, October 2005, Portland, Oregon
- Reviewer for *Mathematics Magazine*, *Mathematical Reviews*, *The Mathematics Teacher*, and *PRIMUS*
- Reviewer for the MAA Online Book Review
- Reviewer for the NCTM Navigation Series for The Oregon Mathematics Teacher (TOMT), 2004-2007
- MAA Liaison to the Mathematics Department at Western Oregon University

Institutional Service

- Mathematics Department Co-chair with Dr. Hamid Behmard, 2006-present
- Faculty Senate Secretary, February 2003-June 2004
- Faculty Senate Member, 2002-2006
- Chair of the Honors Committee, Fall 2004-2006
- Member of the Executive Committee (2003-2005), Honors Committee (2002-present), NSM Divisional Technology and Service Committees (2002-2004), Ad-Hoc Textbook Committee (2002-2003), Math Search Committees (2003-2004), School of Education Search Committee (Fall 2004-Winter 2005), Strategic Planning Committee (Winter 2007)

- Western Adventures in Math and Science (WAMS) co-director with Drs. Bryan Dutton and Sarah Boomer from Biology (2003-2005)
- Co-organizer of the NSM Career Day, Fall 2002 and 2003
- Co-presenter of “How to Succeed in Math and Science,” during New Student Week, 2001-2005

Publications

“[Twisted Torsion on Compact Hyperbolic Spaces: A Representation-theoretic Approach](#),” Asian Journal of Mathematics, Vol. 6, No. 1, March 2002

“Online Mentoring with the Math Forum: A Capstone Experience for Pre-Service K-8 Teachers in a Mathematics Content Problem Solving Class,” joint work with Mary De Young from Hope College MI, Contemporary Issues in Technology and Teacher Education Journal, Volume 4, Issue 3 (2004),
<http://www.citejournal.org/vol4/iss3/currentpractice/article1.cfm>

“Writing, Reading and Assessing in an Elementary Problem Solving Class,” joint work with Leon Roland, PRIMUS, Volume XIV, Number 4, December 2004, pp. 289-302

“A Note of the Vanishing of the Eta Invariant on Compact Locally Symmetric Spaces,” The Rocky Mountain Journal of Mathematics, vol. 35, no. 4, 2005

“OCEPT work at Western Oregon University: A K – 8 Teacher Mathematics Training Success,” joint work with Laurie Burton, in *Preparing Future Science and Mathematics Teachers Faculty Write About CEPT Innovations on Campuses Today* (Diane Smith and Elisabeth Swanson, editors), September 2005

Review of *Basic Linear Algebra* by T.S. Blyth and E.F. Robertson, in the MAA Online Book review column, <http://www.maa.org/reviews/basicLA.html>, December 2003

Review of *The Curious Incident of the Dog in the Night-time* by Mark Haddon, in the MAA Online Book review column, <http://www.maa.org/reviews/dogincident.html>, January 2005

“Old Grandpa’s Check,” TOMT: The Oregon Mathematics Teacher, December 2002

“Factorial Fun,” TOMT: The Oregon Mathematics Teacher, December 2003

“The CD-ROMs of the NCTM Navigating Series, Part 1,” TOMT: The Oregon Mathematics Teacher, March 2007

“The CD-ROMs of the NCTM Navigating Series, Part 2,” TOMT: The Oregon Mathematics Teacher, June 2007

“Using Non-Euclidean Geometry to Teach Euclidean Geometry to K--12 Teachers,” joint work with David Damcke, Tevian Dray, Dianne Hart, and Lyn Riverstone, TOMT: The Oregon Mathematics Teacher (in preparation)

“Designing a Geometry Course for Mathematics Teachers,” joint work with David Damcke, Tevian Dray, Dianne Hart, and Lyn Riverstone, TOMT: The Oregon Mathematics Teacher (in preparation)

References

Laurie Burton, Associate Professor of Mathematics, Western Oregon University

Mike Ward, Professor of Mathematics, Western Oregon University

Tevian Dray, Professor of Mathematics, Oregon State University

Birgit Speh, Professor of Mathematics, Cornell University

Additional Information

US Citizen

Languages: Bulgarian, Russian, written French