

Guram Bezhanishvili

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Education

March 1998: PhD from Tokyo Institute of Technology. PhD Thesis: *An algebraic approach to intuitionistic modal logics over MIPC*. Advisors: *Leo Esakia* and *Hiroakira Ono*.

June 1992: BSc from Tbilisi State University. Bachelor's Thesis: *On the variety of monadic Heyting algebras* (in Georgian). Advisor: *Leo Esakia*.

Employment

2011–present: Full Professor, New Mexico State University, Department of Mathematical Sciences, Las Cruces, New Mexico, USA.

2006–2011: Associate Professor, New Mexico State University, Department of Mathematical Sciences, Las Cruces, New Mexico, USA.

2001–2006: Assistant Professor, New Mexico State University, Department of Mathematical Sciences, Las Cruces, New Mexico, USA.

2000–2001: Visiting Professor, New Mexico State University, Department of Mathematical Sciences, Las Cruces, New Mexico, USA.

2000: Postdoctoral Fellow, Institute for Logic, Language and Computation, University of Amsterdam, Amsterdam, The Netherlands.

1998-2000: Assistant Professor, Tbilisi State University, Department of Mechanics and Mathematics, Tbilisi, Georgia.

Teaching

Graduate courses

Point-Free Topology: Fall 2011, New Mexico State University.

General Topology: Fall 2020 (online via Zoom), Spring 2017, Spring 2007, New Mexico State University.

Real Analysis II: Spring 2022 (online via Zoom), New Mexico State University.

Real Analysis I: Fall 2021 (online via Zoom), New Mexico State University.

Lattice Theory: Spring 2011, Spring 2007, Spring 2006, New Mexico State University.

Mathematical Structures in Logic: Spring 2020, Spring 2018, New Mexico State University.

Universal Algebra and Model Theory: Fall 2022 (online via Zoom), New Mexico State University.

Universal Algebra: Fall 2016, Fall 2012, Fall 2003, New Mexico State University.

Modern Algebra II: Spring 2003, New Mexico State University.

Modern Algebra I: Fall 2002, New Mexico State University.

Topics in Algebra: Spring 2012, New Mexico State University.

Foundations of Geometry: Spring 2002, New Mexico State University.

Axiomatic Set Theory: Spring 2016, Spring 2001, New Mexico State University.

Mathematical Logic: Fall 2015, Fall 2013, Fall 2010, Fall 2008, Fall 2006, Fall 2004, New Mexico State University.

Gödel's Incompleteness Theorems: Fall 2009, New Mexico State University.

Logic and Set Theory: Fall 1999, Tbilisi State University.

Lattice Theory and Categorical Logic: Spring 1999, Tbilisi State University.

Undergraduate courses

Vector Spaces and Matrix Algebra: Spring 2010 (Distance Education), Spring 2009 (Distance Education), Spring 2005, Spring 2004, New Mexico State University.

Introduction to Linear Algebra: Spring 2013, Fall 2005, New Mexico State University.

Introduction to Modern Algebra: Spring 2014, Fall 2000, New Mexico State University.

Introduction to Analysis: Spring 2022 (online via Zoom), Spring 2021 (online via Zoom), New Mexico State University.

Introduction to Proofs: Fall 2021 (online via Zoom), Fall 2018, Spring 2014, Fall 2011, Spring 2011, Fall 2006, Spring 2005, Spring 2001, Fall 2000, New Mexico State University.

Discrete Mathematics for Computer Science: Fall 2009, New Mexico State University.

Discrete Mathematics: Fall 2001, New Mexico State University.

Ordinary Differential Equations: Fall 2022 (online via Zoom), Spring 2013, Spring 2010 (Distance Education), Spring 2006, New Mexico State University.

Calculus and Analytic Geometry III: Fall 2003, New Mexico State University.

Calculus and Analytic Geometry II Honors: Spring 2021 (online via Zoom), Spring 2020, Spring 2018, Spring 2017, Spring 2016, New Mexico State University.

Calculus and Analytic Geometry II: Spring 2019 (two sections), Fall 2018, Fall 2016, Fall 2013, Fall 2012, Fall 2010, Spring 2003, Fall 2002, New Mexico State University.

Calculus and Analytic Geometry I: Fall 2020 (online via Zoom), Fall 2019 (two sections), Fall 2015, Spring 2012, Fall 2005, New Mexico State University.

Mathematics Appreciation: Spring 2004, Spring 2002, Fall 2001, New Mexico State University.

Summer schools

A Non-Pointfree Approach to Pointfree Topology: Boolean Algebras, Lattices, Algebraic Logic, Quantum Logic, Universal Algebra, Set Theory, Set-Theoretic Topology, and Point-Free Topology 2019 (**BLAST 2019**), May 20–24, 2019, Boulder, Colorado.

A Semantic Hierarchy for Intuitionistic Logic: Thirteenth International Tbilisi Summer School in Logic and Language, September 25–29, 2017, Tbilisi, Georgia.

Frames, Topologies, and Duality Theory: Topology, Algebra and Categories in Logic 2015 (**TACL 2015**), June 15–19, 2015, Salerno, Italy.

Lattices and Topologies: European Summer School in Logic, Language, and Information 2008 (**ESSLLI 2008**), August 11–15, 2008, Hamburg, Germany (jointly with *Mamuka Jibladze*).

Lattices and Topology: Third International Tbilisi Summer School in Logic and Language, September 27–28, 2007, Tbilisi, Georgia (jointly with *Mamuka Jibladze*).

Grants/Awards

2021-2025: European Union Grant “MOSAICS: Modalities in substructural logics: theory, methods and applications.” Involves more than 50 researchers and more than 20 universities worldwide. Personnel involved from NMSU: *John Harding*, *Ilya Shapirovsky*, and myself.

2017-2020: GNSF Grant “Propositional calculi for topology and geometry” (with *David Gabelaia*, *Nick Bezhanishvili*, *Mamuka Jibladze*, and *Levan Uridia*).

2018: NMSU College of Arts and Sciences Travel Award.

2016-2019: European Union Grant “SYSMICS: Syntax meet semantics: methods, interactions, and connections in substructural logics”. Involves more than 50 researchers in 23 universities worldwide in 13 different countries. Personnel involved from NMSU: *John Harding*, *Pat Morandi*, *Bruce Olberding*, and myself.

2012-2015: GNSF Grant “Topological Semantics of Modal Logic” (with *David Gabelaia*, *Nick Bezhanishvili*, and *Mamuka Jibladze*).

2012: NMSU College of Arts and Sciences Travel Grant.

2009-2011: GNSF Grant “Duality Theory and its Applications to the Semantics of Non-Classical Logics” (with *Leo Esakia, David Gabelaia, Nick Bezhanishvili, Mamuka Jibladze, and Dimitri Pataraidia*).

2008-2011: NSF Grant “Learning Discrete Mathematics and Computer Science via Primary Historical Sources” (with *Jerry Lodder, David Pengelley, Desh Ranjan, Hing Leung, Inna Pivkina, and Janet Barnett*).

2006-2008: GNSF Grant “Semantics of Intuitionistic Modal Logic: Algebraic and Topological Models” (with *Leo Esakia, David Gabelaia, Nick Bezhanishvili, Mamuka Jibladze, and Dimitri Pataraidia*).

2006-2007: NMSU ISSS Cluster Award “Learning Discrete Mathematics via Historical Sources” (with *Jerry Lodder, David Pengelley, Desh Ranjan, Hing Leung, and Inna Pivkina*).

2003-2005: NSF Grant “Teaching Discrete Mathematics via Original Historical Sources” (with *Jerry Lodder, David Pengelley, Desh Ranjan, and Hing Leung*).

2003-2004: GRDF/CRDF Georgian-U.S. Bilateral Grant “Applications of Topology and Universal Algebra to Modal Logic” (with *Mai Gehrke, John Harding, Patrick J. Morandi, Leo Esakia, Mamuka Jibladze, and Dimitri Pataraidia*).

2001: Grant of MRC (Mathematical Research Center, Barcelona, Spain) for joint collaboration with *Ramon Jansana* of University of Barcelona.

1997-1999: Fellowship of the President of Georgia.

1997-1999: Grant of the Georgian Academy of Sciences (with *Leo Esakia* and *Revaz Grigolia*).

1996-1998: Fellowship of the Japanese Government.

1995-1996: George Soros Fellowship.

Service and Professional Duties

Editorial

- Member of the editorial board of **Advanced Studies: Euro-Tbilisi Mathematical Journal**.
- Member of the editorial board of **Bulletin of Symbolic Logic**.
- Member of the editorial board of **Proyecciones Journal of Mathematics**.

- Member of the editorial board of **Rocky Mountain Journal of Mathematics (RMJM)**.
- Member of the editorial board of **Studia Logica** (2004–2018).

Reviews

- Reviewer for **Mathematical Reviews**.
- Reviewer for **Zentralblatt**.

Journal Refereeing

- Refereed for over 40 leading journals in my area of expertise.

Conference Refereeing

- Referee for the conference series **TACL** (Topology, Algebra, and Categories in Logic).
- Referee for the conference series **AiML** (Advances in Modal Logic).
- Referee for the conference series **TbiLLC** (International Tbilisi Symposium on Language, Logic, and Computation).
- Also refereed for many other conferences, workshops, and summer schools.

Conference Organization

- **Steering committee member of:**
 - (a) **AiML** (a conference series Advances in Modal Logic).
 - (b) **TACL** (a conferences series on Topology, Algebra, and Categories in Logic).
 - (c) **TbiLLC** (International Tbilisi Symposium on Language, Logic, and Computation).
 - (d) **BLAST** (a conference series focusing on Boolean Algebras, Lattices, Algebraic Logic, Quantum Logic, Universal Algebra, Set Theory, Set-Theoretic Topology, and Point-Free Topology).
- **Chair of:**
 - (a) **AiML 2018**, Bern, Switzerland, August 27–31, 2018.

- (b) **TbiLLC 2011**, Kutaisi, Georgia, September 26–30, 2011.
- (c) **TbiLLC 2009**, Bakuriani, Georgia, September 21–25, 2009.
- (d) **TACL 2007**, Oxford, England, August 5–9, 2007.

- **Organizer of:**

- (a) **DOCToR**, Salerno, Italy, July 7–9 (online).
- (b) **BLAST 2021**, Las Cruces, New Mexico, June 9–13, 2021 (online).
- (c) **TOLO 2018** (Topological Methods in Logic VI), Tbilisi, Georgia, July 2–6, 2018.
- (d) **TOLO 2016** (Topological Methods in Logic V), Tbilisi, Georgia, June 13–17, 2016.
- (e) **BLAST 2014**, Las Cruces, New Mexico, January 5–9, 2015.
- (f) **TOLO 2014** (Topological Methods in Logic IV), Tbilisi, Georgia, June 23–27, 2014.
- (g) **TOLO 2012** (Topological Methods in Logic III), Tbilisi, Georgia, July 24–27, 2012.
- (h) **Workshop on Authorship of Student Projects Based on Primary Historical Sources for Courses in Mathematics or Computer Science**, New Mexico State University, Las Cruces, New Mexico, April 16–17, 2012.
- (i) **TOLO 2010** (Topological Methods in Logic II), Georgian American University, Tbilisi, Georgia, June 8–10, 2010.
- (j) **BLAST 2009**, Las Cruces, New Mexico, August 10–14, 2009.
- (k) **TOLO 2008** (Topological Methods in Logic I), Georgian American University, Tbilisi, Georgia, June 3–5, 2008.
- (l) **1st Joint NMSU/UTEP Workshop on Mathematics and Computer Science**, New Mexico State University, Las Cruces, New Mexico, April 14, 2007.
- (m) **TACL 2003**, Tbilisi, Georgia, July 7–11, 2003.
- (n) The workshop **Reasoning About Space** in the **Logic & Computation Section** of **NASSLLI 2003** (the 2nd North American Summer School in Logic, Language, and Information), Bloomington, Indiana, June 17–21, 2003.

• **Program committee member of:**

- (a) **TbiLLC 2022**, Tbilisi, Georgia, 2022.
- (b) **ASL 2021**, University of Notre Dame, Indiana, June 22–25, 2021 (online).
- (c) **Annual International Tbilisi Summer Schools in Logic and Language**, Tbilisi, Georgia.
- (d) **AiML 2020**, Helsinki, Finland, August 17–21, 2020.
- (e) **TbiLLC 2019**, Tbilisi, Georgia, September 16–20, 2019.
- (f) **AiML 2018**, Bern, Switzerland, August 27–31, 2018.
- (g) **WoLLIC 2016**, Puebla, Mexico, August 16–19, 2016.
- (h) **TACL 2013**, Vanderbilt University, Nashville, Tennessee, July 28–August 1, 2013.
- (i) **AiML 2012**, Copenhagen, Denmark, August 22–25, 2012.
- (j) **TbiLLC 2011**, Kutaisi, Georgia, September 26–30, 2011.
- (k) **Ordered Groups and Lattices in Algebraic Logic**, Tbilisi, Georgia, September 20–23, 2011.
- (l) **TACL 2011**, Marseilles, France, July 25–30, 2011.
- (m) **AiML 2010**, Moscow, Russia, August 24–27, 2010.
- (n) **TbiLLC 2009**, Bakuriani, Georgia, September 21–25, 2009.
- (o) **TACL 2009**, Amsterdam, The Netherlands, July 7–11, 2009.
- (p) **AiML 2008**, Nancy, France, September 9–12, 2008.
- (q) Student Session of **ESSLLI 2008** (European Summer School in Logic, Language, and Computation 2008), Hamburg, Germany, August 4–15, 2008.
- (r) **2nd Joint NMSU/UTEP Workshop on Mathematics and Computer Science**, University of Texas at El Paso, El Paso, Texas, November 17, 2007.
- (s) **TbiLLC 2007**, Tbilisi, Georgia, October 1–5, 2007.
- (t) **TACL 2007**, Oxford, England, August 5–9, 2007.
- (u) **AiML 2006**, Queensland, Australia, September 25–28, 2006.
- (v) **TbiLLC 2003**, Tbilisi, Georgia, October 6–10, 2003.
- (w) **TbiLLC 2001**, Borjomi, Georgia, September 23–28, 2001.

Other Duties

Colloquium/Algebra/Lattice Theory Seminars

- Organizer of weekly **Colloquium Talks**, NMSU, 2015–2018, 2008–2013, 2006–2007.
- Co-organizer of weekly **Foundations Seminar**, NMSU, 2021–present.
- Co-organizer of weekly **Algebra/Lattice Theory Seminar**, NMSU, 2015–present, 2012–2014.
- Co-organizer of weekly **Lattice Theory Seminar**, NMSU, 2008–2012, 2003–2007.
- Organizer of weekly **Algebra Seminar**, NMSU, Spring 2003.

Departmental Committees

- Member of **Promotion to Professor Committee**, NMSU, 2019–2020, 2015–2016.
- Member of **Tenure and Promotion to Associate Professor Committee**, NMSU, 2010–2012.
- Member of **Hiring Committee**, NMSU, 2021–2022, 2019–2020, 2016–2017, 2013–2014, 2010–2011.
- Member of **Graduate Studies Committee**, NMSU, 2020–present, 2016–2018, 2013–2014, 2004–2005.
- Member of **Undergraduate Curriculum and Peer Teaching Committee**, NMSU, 2018–2020, 2015–2016, 2012–2013, 2001–2004.
- Member of **Teaching Committee**, NMSU, 2009–2010.
- Member of **Calculus Textbook Committee**, NMSU, 2012.
- Member of **Library Liaison and Math Reading Room Committee**, NMSU, 2018–2019.
- Member of **Liaison Committee**, NMSU, 2005–2006.
- Member of **Computer Advisory Committee**, NMSU, 2005–2006.

Course Coordination

- Course coordinator of **Calculus and Analytic Geometry II** (Math 192), NMSU, Spring 2019, Fall 2018, Fall 2016, Fall 2013, Fall 2012, Spring 2003.
- Course coordinator of **Calculus and Analytic Geometry I** (Math 191), NMSU, Fall 2020, Fall 2019, Fall 2015, Spring 2012.

PhD Committees

- Chair of PhD Oral Comprehensive Exam for *Ranjitha Raviprakash*, NMSU, Fall 2022.
- Member of PhD Final Exam for *Anthony Machado*, NMSU, Spring 2022.
- Member of PhD Oral Comprehensive Exam for *Dinupa Batugedara*, NMSU, Spring 2021.
- Member of PhD Oral Comprehensive Exam for *Miguel Peinado*, NMSU, Spring 2021.
- External Member of PhD Final Exam for *Marco Abaddini*, University of Milan, Spring 2021.
- Chair of PhD Final Exam for *Luca Carai*, NMSU, Spring 2021.
- Chair of PhD Final Exam for *Kristina Brantley*, NMSU, Spring 2019.
- Chair of PhD Oral Comprehensive Exam for *Luca Carai*, NMSU, Fall 2018.
- Member of PhD Final Exam for *Maria Cruz*, NMSU, Spring 2016.
- Member of PhD Final Exam for *Zahi Fawaz*, NMSU, Spring 2016.
- Member of PhD Oral Comprehensive Exam for *Maria Cruz*, NMSU, Spring 2014.
- Chair of PhD Qualifying Exam for *Andrew Dynneson*, NMSU, Fall 2013.
- Chair of PhD Oral Comprehensive Exam for *Kristina Brantley*, NMSU, Fall 2013.
- Member of PhD Oral Comprehensive Exam for *Zahi Fawaz*, NMSU, Fall 2013.
- External Member of PhD Final Exam for *Jacob Vosmaer*, University of Amsterdam, Fall 2010.
- Member of PhD Final Exam for *Qin Yang*, NMSU, Summer 2010.
- Chair of PhD Final Exam for *Joel Lucero-Bryan*, NMSU, Spring 2010.
- External Member of PhD Final Exam for *Darco Sarenac*, Stanford University, Spring 2005.
- Member of PhD Qualifying Exam for *Jea-Pil Cho*, NMSU, Spring 2003.
- Member of PhD Final Exam for *Hideo Nagahashi*, NMSU, Spring 2002.

Master's Committees

- Chair of Master's Exam for *Kempton Albee*, NMSU, Spring 2021.

- Chair of Master's Exam for *David Vessel*, NMSU, Fall 2020.
- Member of Master's Exam for *Miguel Peinado*, NMSU, Spring 2020.
- Chair of Master's Exam for *Justin Strawn*, NMSU, Spring 2019.
- Chair of Master's Exam for *Isis Gallardo*, NMSU, Spring 2018.
- Member of Master's Exam for *Ian Logan*, NMSU, Spring 2007.
- Chair of Master's Exam for *Joel Lucero-Bryan*, NMSU, Spring 2005.

Students

- **Ph.D. Students:**

- Sebastian Melzer*, NMSU, 2021–present.
- Ranjitha Raviprakash*, NMSU, 2020–present.
- Luca Carai*, NMSU, 2017–2021. Ph.D. Thesis: “New directions in duality theory for modal logic”, NMSU, 2021.
- Kristina Brantley*, NMSU, 2013–2019. Ph.D. Thesis: “Monadic intuitionistic and modal logics admitting provability interpretations”, NMSU, 2019.
- Joel Lucero-Bryan*, NMSU, 2005–2010. Ph.D. Thesis: “Modal logics of some subspaces of the real numbers: Diamond as derivative”, NMSU, 2010.

- **Master's Students:**

- Kempton Albee*, NMSU, 2019–2021.
- David Vessel*, NMSU, 2019–2020.
- Justin Strawn*, NMSU, 2017–2019.
- Isis Gallardo*, NMSU, 2016–2017.
- Philip Bauer*, NMSU, 2015–2016.
- Eachan Landreth*, NMSU, 2010–2011.
- Wesley Fussner*, NMSU, 2008–2010.
- Joel Lucero-Bryan*, NMSU, 2002–2005.
- David Gabelaia*, Tbilisi State University, 1999.
- Nick Bezhanishvili*, Tbilisi State University, 1999.

Postdocs

- *Angel Zaldivar*, NMSU, 2017–2018.

Invited Talks

September 2022: *Deriving Priestley duality and its generalizations from Pontryagin duality for semilattices*, AMS Special Session on Algebraic Structures in Topology, Logic, and Arithmetic, El Paso, Texas.

May 2022: *Hofmann-Mislove theorem through the lenses of Priestley duality*, AMS Special Session on Algebraic Logic, Online via Zoom.

March 2020: *Diego's Theorem for nuclear implicative semilattices*, Shanks Workshop on Ordered Algebras and Logic, Nashville, Tennessee.

June 2018: *Topological completeness above S4.3*, The Workshop on Algebra and Duality in Non-Classical Logic, Amsterdam, The Netherlands.

May 2018: *Modal logics arising from metric spaces*, SEP 2018, Storrs, Connecticut.

August 2017: *Jónsson's contributions to the study of lattices of logics*, BLAST 2017, Nashville, Tennessee.

October 2016: *On the proof that compact Hausdorff Boolean algebras are powersets*, AMS Sectional Meeting 2016, Denver, Colorado.

August 2016: *The modal logic of topology: New directions*, AiML 2016, Budapest, Hungary.

May 2015: *How far can the McKinsey-Tarski theorem be extended?*, 4th Annual CSLI Workshop on Logic, Rationality, and Intelligent Interaction, Stanford University, California.

June 2012: *An algebraic approach to Gelfand duality*, Workshop on Duality Theory in Algebra, Logic and Computer Science, Oxford, England.

July 2011: *Scientific legacy of Leo Esakia*, TACL 2011, Marseille, France.

July 2009: *Duality theory in logic*, 24th Summer Conference on Topology and its Applications, Brno, Czech Republic.

June 2008: *A new representation of distributive and implicative semilattices*, TOLO 2008, Tbilisi, Georgia.

October 2007: *Modal logic and topology*, TbiLLC 2007, Tbilisi, Georgia.

March 2006: *Completions and compactifications*, The Amsterdam–London Workshop on Modal Logic, Amsterdam, The Netherlands.

June 2005: *Subframe logics, nuclei, and pointless topologies*, TACL 2005, Barcelona, Spain.

November 2004: *Modal logics of space*, Workshop on the Handbook of Spatial Logics, University of Freiburg, Germany.

June 2003: *Scattered and hereditarily irresolvable spaces*, The 2nd North American Summer School in Logic, Language, and Information, Indiana University, Bloomington, Indiana.

Colloquium Talks

November 2020: *Modal operators on rings of continuous functions: A generalization of Gelfand and Jónsson-Tarski dualities*, Steklov Mathematical Institute, Moscow, Russia (via Zoom).

October 2020: *The hit-or-miss topology, Fell compactification, and free lattices*, University of Denver, Denver, Colorado (via Zoom).

September 2020: *Topological semantics of modal logic*, IIT Kanpur, India (via Zoom).

April 2020: *Modal logic and measurable cardinals*, University of Amsterdam, The Netherlands (via Zoom).

April 2020: *Existence of measurable cardinals and modal logic*, Steklov Mathematical Institute, Moscow, Russia (via Zoom).

June 2018: *How to extend de Vries duality to completely regular spaces*, University of Amsterdam, The Netherlands.

March 2016: *The algebra of topology: Tarski's program 70 years later*, University of California, Berkeley, California.

April 2015: *What does less than or equal really mean?*, New Mexico State University, Las Cruces, New Mexico.

April 2012: *Around Gelfand duality*, University of Texas at El Paso, El Paso, Texas.

March 2009: *Stone duality, Smirnov's theorem, and compact Hausdorff spaces*, Baruch College, City University of New York, New York.

November 2008: *An algebraic approach to canonical formulas: Intuitionistic case*, Indiana University, Bloomington, Indiana.

May 2008: *Priestley order-compactifications and a generalization of Dwingher's theorem*, University of Amsterdam, The Netherlands.

April 2008: *Bitopological duality for distributive lattices and Heyting algebras*, University of Amsterdam, The Netherlands.

April 2008: *Spatial logics over S_4* , University of Gröningen, The Netherlands.

December 2007: *New results in topological completeness of modal and super-intuitionistic logics*, University of Leicester, United Kingdom.

December 2007: *Topological completeness in modal logic*, City University of New York, New York.

November 2007: *Topological completeness of modal and superintuitionistic logics*, Cornell University, Ithaca, New York.

March 2006: *Stone-like dualities in algebra*, University of Houston, Texas.

November 2005: *Stone-like dualities and their applications to non-classical logics*, Indiana University, Bloomington, Indiana.

December 2004: *MacNeille completions in modal logic*, University of Amsterdam, The Netherlands.

December 2004: *MacNeille completions of modal algebras*, University of Bonn, Germany.

June 2002: *Canonical, topo-canonical, and MacNeille completions of Heyting algebras*, University of Salerno, Italy.

June 2002: *Topo-canonicity and topo-definability*, University of Milan, Italy.

June 2002: *MacNeille completions of Heyting algebras*, University of Milan, Italy.

June 2001: *Topological perspective on modal logic*, University of Barcelona, Spain.

May 2001: *Modal logic from topological point of view*, Stanford University, Palo Alto, California.

March 2001: *Algebraic and topological approaches to superintuitionistic logics*, New Mexico State University, Las Cruces, New Mexico.

February 2000: *Projectivity and extendability*, Utrecht University, The Netherlands.

January 2000: *Finite variable fragments of the intuitionistic predicate logic and their relation to the provability logic*, University of Amsterdam, The Netherlands.

Conference Talks

June 2007: *Priestley order-compactifications*, Order, Algebra, Logics, Vanderbilt University, Nashville, Tennessee.

June 2007: *The universal modality, the center of a Heyting algebra, and the Blok-Esakia theorem*, Logical Foundations of Computer Science 2007, City University of New York, New York.

August 2004: *MacNeille completions of Heyting algebras*, Algebras, Lattices, Varieties—A Conference in Honor of Walter Taylor, University of Colorado, Boulder, Colorado.

June 2002: *Functional monadic Heyting algebras*, Annual Meeting of Association for Symbolic Logic, Las Vegas, Nevada.

July 2000: *Locally finite varieties*, The 6th Barcelona Logic Meeting, Barcelona, Spain.

September 1999: *Q-Heyting algebras as reducts of monadic Heyting algebras*, TbiLLC 1999, Chakvi, Georgia.

October 1998: *Locally tabular extensions of MIPC*, AiML 1998, Uppsala, Sweden.

November 1997: *Monadic version of Glivenko's theorem*, Annual Meeting of Mathematical Logic, Shizuoka, Japan.

June 1997: *Logics over MIPC*, Sequent Calculi and Kripke Semantics for Non-Classical Logics, Kyoto, Japan.

March 1997: *Modal intuitionistic logics and superintuitionistic predicate logics: correspondence theory*, New Aspects of Non-Classical Logics and Their Kripke Semantics, Kyoto, Japan.

December 1996: *A partial solution of some problems of H. Ono*, FOLLI Workshop on Logics for Linguistics, Philosophy, and Cognitive Science, Chiba, Japan.

November 1996: *Splitting monadic Heyting algebras*, Annual Meeting of Mathematical Logic, Kanazawa, Japan.

October 1995: *Some results in monadic Heyting algebras*, TbiLLC 1995, Gudauri, Georgia.

August 1995: *Monoquantified extensions of linear intermediate propositional logics*, Xth International Congress of Logic, Methodology, and Philosophy of Science, Florence, Italy.

Math Education Talk

April 2005: *Introducing primary historical sources in discrete mathematics and computer science curriculum* (Joint presentation with Karen Villaverde and Joel Lucero-Bryan), Annual Meeting of the Southwestern Section of Mathematics Association of America, El Paso, Texas.