

Guram Bezhanishvili

Address

Department of Mathematical Sciences
New Mexico State University
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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.

Logic and Set Theory: Fall 2023, New Mexico State University, Fall 1999, Tbilisi State University.

Gödel's Incompleteness Theorems: Fall 2009, New Mexico 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: Spring 2024, 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: Spring 2025 (two sections), Fall 2003, New Mexico State University.

Calculus and Analytic Geometry II Honors: Spring 2025, Spring 2021 (online via Zoom), Spring 2020, Spring 2018, Spring 2017, Spring 2016, New Mexico State University.

Calculus and Analytic Geometry II: Spring 2025, 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 Honors: Fall 2025, New Mexico State University.

Calculus and Analytic Geometry I: Fall 2025, Spring 2024, Fall 2023, 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 (**ESSLI 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

2024: NMSU College of Arts and Sciences Travel Award.

2023-2028: NSF grant “RTG: Research Training Group in Logic and its Applications” (with *John Harding*, *Pat Morandi*, and *Ilya Shapirovsky*). Stepped down for personal reasons.

2021: The Italian Logic Association’s Ada Lettieri Best Paper Award (for the paper G. Bezhanishvili, N. Bezhanishvili, T. Moraschini, M. Stronkowski. *Profiniteness and representability of spectra of Heyting algebras*, *Advances in Mathematics*, **391** (2021), article 107959, 47 pages).

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 Pataraiia*).

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 Pataraiia*).

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 Pataraiia*).

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 (ASETMJ)** (2008–present).
- Member of the editorial board of **Bulletin of Symbolic Logic (BSL)** (2022–present).
- Member of the editorial board of **Rocky Mountain Journal of Mathematics (RMJM)** (2016–present).
- Member of the editorial board of **Topology and Its Applications** (2023–present).
- Member of the editorial board of **Proyecciones Journal of Mathematics** (2020–2023).
- Member of the editorial board of **Studia Logica** (2004–2018).

Reviews

- Reviewed for **Mathematical Reviews**.
- Reviewed for **Zentralblatt**.

Journal Refereeing

- Refereed for about 50 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) (2016–2024).
- (b) **BLAST** (a conference series focusing on Boolean Algebras, Lattices, Algebraic Logic, Quantum Logic, Universal Algebra, Set Theory, Set-Theoretic Topology, and Point-Free Topology) (2008–present).
- (c) **TACL** (a conferences series on Topology, Algebra, and Categories in Logic) (2003–present).
- (d) **TbiLLC** (International Tbilisi Symposium on Language, Logic, and Computation) (2011–present).

- **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) **Frame Theory Workshop**, Chapman University, Orange, California, December 2, 2024.
- (b) Special session on **Algebraic Logic** at **ASL 2024**, Iowa State University, Ames, Iowa, May 14–17, 2024.
- (c) **DOCToR**, Salerno, Italy, July 7–9, 2021 (online).
- (d) **BLAST 2021**, Las Cruces, New Mexico, June 9–13, 2021 (online).
- (e) **TOLO 2018** (Topological Methods in Logic VI), Tbilisi, Georgia, July 2–6, 2018.
- (f) **TOLO 2016** (Topological Methods in Logic V), Tbilisi, Georgia, June 13–17, 2016.
- (g) **BLAST 2014**, Las Cruces, New Mexico, January 5–9, 2015.
- (h) **TOLO 2014** (Topological Methods in Logic IV), Tbilisi, Georgia, June 23–27, 2014.
- (i) **TOLO 2012** (Topological Methods in Logic III), Tbilisi, Georgia, July 24–27, 2012.

- (j) **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.
- (k) **TOLO 2010** (Topological Methods in Logic II), Georgian American University, Tbilisi, Georgia, June 8–10, 2010.
- (l) **BLAST 2009**, Las Cruces, New Mexico, August 10–14, 2009.
- (m) **TOLO 2008** (Topological Methods in Logic I), Georgian American University, Tbilisi, Georgia, June 3–5, 2008.
- (n) **1st Joint NMSU/UTEP Workshop on Mathematics and Computer Science**, New Mexico State University, Las Cruces, New Mexico, April 14, 2007.
- (o) **TACL 2003**, Tbilisi, Georgia, July 7–11, 2003.
- (p) 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) **AiML 2020**, Helsinki, Finland, August 17–21, 2020.
 - (d) **TbiLLC 2019**, Tbilisi, Georgia, September 16–20, 2019.
 - (e) **AiML 2018**, Bern, Switzerland, August 27–31, 2018.
 - (f) **WoLLIC 2016**, Puebla, Mexico, August 16–19, 2016.
 - (g) **TACL 2013**, Vanderbilt University, Nashville, Tennessee, July 28–August 1, 2013.
 - (h) **AiML 2012**, Copenhagen, Denmark, August 22–25, 2012.
 - (i) **TbiLLC 2011**, Kutaisi, Georgia, September 26–30, 2011.
 - (j) **Ordered Groups and Lattices in Algebraic Logic**, Tbilisi, Georgia, September 20–23, 2011.
 - (k) **TACL 2011**, Marseilles, France, July 25–30, 2011.
 - (l) **AiML 2010**, Moscow, Russia, August 24–27, 2010.
 - (m) **TbiLLC 2009**, Bakuriani, Georgia, September 21–25, 2009.

- (n) **TACL 2009**, Amsterdam, The Netherlands, July 7–11, 2009.
- (o) **AiML 2008**, Nancy, France, September 9–12, 2008.
- (p) Student Session of **ESSLLI 2008** (European Summer School in Logic, Language, and Computation 2008), Hamburg, Germany, August 4–15, 2008.
- (q) 2nd **Joint NMSU/UTEP Workshop on Mathematics and Computer Science**, University of Texas at El Paso, El Paso, Texas, November 17, 2007.
- (r) **TbiLLC 2007**, Tbilisi, Georgia, October 1–5, 2007.
- (s) **TACL 2007**, Oxford, England, August 5–9, 2007.
- (t) **AiML 2006**, Queensland, Australia, September 25–28, 2006.
- (u) **TbiLLC 2003**, Tbilisi, Georgia, October 6–10, 2003.
- (v) **TbiLLC 2001**, Borjomi, Georgia, September 23–28, 2001.
- (w) **Annual International Tbilisi Summer Schools in Logic and Language**, Tbilisi, Georgia.

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, 2021–2022.
- Co-organizer of weekly **Algebra/Lattice Theory Seminar**, NMSU, 2015–2022, 2012–2014.
- Co-organizer of weekly **Lattice Theory Seminar**, NMSU, 2008–2012, 2003–2007.
- Organizer of weekly **Algebra Seminar**, NMSU, Spring 2003.

Departmental Committees

- Chair of **Promotion to Professor Committee**, NMSU, 2023–2024.
- 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.

- Chair of **Graduate Studies Committee**, NMSU, 2021–2022.
- Member of **Graduate Studies Committee**, NMSU, 2023–2024, 2020–2021, 2016–2018, 2013–2014, 2004–2005.
- Member of **Undergraduate Curriculum and Peer Teaching Committee**, NMSU, 2018–2020, 2015–2016, 2012–2013, 2001–2004.
- Chair of **Undergraduate and graduate placement committee**, NMSU, 2024–2025.
- Member of **Problem of the Week Committee**, NMSU, 2025–2026.
- 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 2025, Spring 2019, Fall 2018, Fall 2016, Fall 2013, Fall 2012, Spring 2003.
- Course coordinator of **Calculus and Analytic Geometry I** (Math 191), NMSU, Fall 2025, Fall 2023, Fall 2020, Fall 2019, Fall 2015, Spring 2012.

PhD Committees

- Co-Chair of PhD Final Exam for *Chase Meadors*, University of Colorado Boulder, Spring 2025.
- Chair of PhD Final Exam for *Ranjitha Raviprakash*, NMSU, Spring 2025.
- Chair of PhD Final Exam for *Sebastian Melzer*, NMSU, Spring 2025.
- Member of PhD Oral Comprehensive Exam for *Vladislav Sliusarev*, NMSU, Spring 2025.
- Chair of PhD Oral Comprehensive Exam for *Mashiath Khan*, NMSU, Fall 2023.
- Chair of PhD Oral Comprehensive Exam for *Sebastian Melzer*, NMSU, Fall 2023.
- 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

- Member of Master's Exam for *Donovan Simpson*, NMSU, Spring 2023.
- Member of Master's Exam for *Gauge Burnett*, NMSU, Spring 2023.
- 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:

- (a) *Mashiath Khan*, NMSU, 2022–present.
- (b) *Chase Meadors*, University of Colorado Boulder, 2022–2025. Ph.D. Thesis: “Local finiteness in varieties of MS4-algebras”, University of Colorado Boulder, 2025 (jointly directed with Keith Kearnes).
- (c) *Sebastian Melzer*, NMSU, 2021–2025. Ph.D. Thesis: “Priestley duality and pointfree topology”, NMSU, 2025.
- (d) *Ranjitha Raviprakash*, NMSU, 2020–2025. Ph.D. Thesis: “McKinsey-Tarski algebras: an alternative pointfree approach to topology”, NMSU, 2025.
- (e) *Luca Carai*, NMSU, 2017–2021. Ph.D. Thesis: “New directions in duality theory for modal logic”, NMSU, 2021.
- (f) *Kristina Brantley*, NMSU, 2013–2019. Ph.D. Thesis: “Monadic intuitionistic and modal logics admitting provability interpretations”, NMSU, 2019.
- (g) *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:

- (a) *Mason Adams*, NMSU, 2022–2023.
- (b) *Kempton Albee*, NMSU, 2019–2021.
- (c) *David Vessel*, NMSU, 2019–2020.
- (d) *Justin Strawn*, NMSU, 2017–2019.
- (e) *Isis Gallardo*, NMSU, 2016–2017.
- (f) *Philip Bauer*, NMSU, 2015–2016.
- (g) *Eachan Landreth*, NMSU, 2010–2011.
- (h) *Wesley Fussner*, NMSU, 2008–2010.
- (i) *Joel Lucero-Bryan*, NMSU, 2002–2005.
- (j) *David Gabelaia*, Tbilisi State University, 1999.

(k) *Nick Bezhanishvili*, Tbilisi State University, 1999.

Postdoc

- *Angel Zaldivar*, NMSU, 2017–2018.

Invited Talks

April 2023: *Varieties of Heyting algebras: what we (still don't) know*, Panglobal Algebra and Logic Seminar, Boulder, Colorado, Online via Zoom.

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

September 2024: *The Gödel translation: history and new directions*, Chapman University, Orange, California.

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 Dwinger'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*, Tbilisi 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.

Guram Bezhanishvili

PUBLICATIONS

Edited Volumes

1. Leo Esakia. *Heyting algebras: Duality theory*, Translated by A. Evseev. Edited by G. Bezhanishvili and W. Holliday, Trends in Logic, Volume 50, Springer, 2019.
2. *Advances in modal logic, Volume 12 (2018)*, College Publications London, 2018, Editors: G. Bezhanishvili, G. D'Agostino, G. Metcalfe, T. Studer.
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