

Curriculum Vitae

NIKOLAOS GALATOS

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Japan Advanced Institute of Science and Technology (JAIST)
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Education

Ph.D. in Mathematics, Vanderbilt University, Nashville, TN, USA, May 2003.

Advisor: Professor Constantine Tsinakis.

M.S. in Mathematics, Vanderbilt University, Nashville, TN, USA, May 2000.

Advisor: Professor Constantine Tsinakis.

Diploma (B.S.) in Mathematics, *summa cum laude*, Aristotle University,
Thessaloniki, Greece, June 1998.

Professional Experience

Assistant Professor, Japan Advanced Institute of Science and Technology, since 2005.

Assistant Professor, Vanderbilt University, 2004-2005.

Postdoctoral Researcher, Japan Advanced Institute of Science and Technology, 2003-2004.

Teaching Assistant, Vanderbilt University, 1998-2003.

Teaching Experience

Assisting with the supervision of Master's and Ph.D. students, JAIST, since 2005.

Students: H. Takamura, H. Kihara, D. Souma.

Seminar organizer, School of Information Science, JAIST, since 2005.

Seminar title: Algebra and logic.

Instructor, Department of Mathematics, Vanderbilt University, 2004-2005.

Courses taught: Abstract Algebra, Introduction to Mathematical Logic.

Seminar presenter, School of Information Science, JAIST, 2003-2004.

Seminar title: Rule separation for FLe.

Instructor, Department of Mathematics, Vanderbilt University, 1999-2003.

Courses taught: Calculus I and II, Accelerated Calculus I and II.

Tutor of Mathematics for the Learning Center and the School of Engineering,
Vanderbilt University, 2000, 2002.

Honors and Awards

Kakenhi two-year research grant from the Japan Society for the Promotion of Science, 2006.

Inoue Foundation for Science Postdoctoral Research Fellowship, 2003-2004.

The Bjarni Jónsson Prize for Research, Vanderbilt University, 2003.

The B.F. Bryant Prize for Excellence in Teaching, Vanderbilt University, 2002.

Dissertation Enhancement Grant, Vanderbilt University, Fall 2002.

Summer Research Award, Vanderbilt University, Summer 2002.

Award for mentoring Teaching Assistants in the Department of Mathematics of
Vanderbilt University, 2001, 2002, 2003.

Korgialenios Foundation Grant for Postgraduate Studies, 2000-2003.

University Graduate Fellowship, Vanderbilt University, 1998-2002.

Graduate Teaching Assistantship, Vanderbilt University, 1998-2003.

Award for the highest cumulative GPA of the decade 1990-1999, Department of
Mathematics, Aristotle University, 1999.

Avramidis Foundation Grant for Excellence in Mathematics, 1996-1998.

Awards and grants for the highest GPA of the year from the Greek Government
Fellowships Foundation, for each of the years 1995-1998.

Award for the highest score among all applicants to the Department of Mathematics
of Aristotle University in the national entrance examination of 1994, from the Greek
State Scholarships Foundation, 1994.

Research articles

The undecidability of the word problem for distributive residuated lattices, Ordered
Algebraic Structures (J. Martinez, ed.), Kluwer Academic Publishers, Dordrecht,
2002, 231-243.

Cancellative residuated lattices, with P. Bahls, J. Cole, P. Jipsen and C. Tsinakis,
Algebra Universalis **50**(1) (2003), 83-106.

Equational bases for joins of residuated-lattice varieties, Studia Logica **76**(2) (2004),
227-240.

Adding involution to residuated structures, with J. Raftery, *Studia Logica* **77**(2) (2004), 181-207.

Minimal varieties of residuated lattices, *Algebra Universalis* **52**(2) (2005), 215-239.

Generalized MV-algebras, with C. Tsınakis, *Journal of Algebra* **283**(1) (2005), 254-291.

Algebraization, parametrized local deduction theorem and interpolation for substructural logics over FL, with H. Ono, *Studia Logica* **83** (2006), 279-308.

Glivenko theorems and other translations for substructural logics over FL, with H. Ono, *Journal of Symbolic Logic* **71**(4), 1353--1384.

Equivalence of closure operators: an order-theoretic and categorical perspective, with C. Tsınakis, manuscript.

Cut elimination and strong separation for substructural logics: an algebraic approach, with H. Ono, manuscript

Residuated frames with applications to decidability, with P. Jipsen, in preparation.

The expressive power of structural rules for FL, with A. Ciabattoni and K. Terui, in preparation.

A Priestley duality for bounded distributive residuated lattices, in preparation.

The monoid reducts of residuated lattices, with S. Seif, in preparation.

Copies of my publications and preprints can be obtained at:
<http://www.jaist.ac.jp/~galatos/research.html>

Book

Residuated Lattices: an algebraic glimpse at substructural logics, with P. Jipsen, T. Kowalski and H. Ono, *Studies in Logics and the Foundations of Mathematics*, Elsevier, pp. 480, (publication in April of 2007).

Theses

Varieties of residuated lattices, Ph. D. thesis, Department of Mathematics, Vanderbilt University, 2003.

Selected topics on residuated lattices, Qualifying paper, Department of Mathematics, Vanderbilt University, 2000.

Educational publication

From here to infinity: a foundation for Calculus, with J. Staples et al., Thomson Learning Custom Publishing, 2001.

Conference presentations and Colloquium Talks

TBA, Invited Plenary talk, International conference on Order, Algebra and Logics, Vanderbilt University, USA, scheduled for June 2007.

Algebraic cut elimination, Seminar talk at the Logic Summer School, Australian National University, Canberra, Australia, December 2006.

Residuated frames, Workshop on Algebra and Substructural Logics III, Krakow, Poland, November 2006.

Cut elimination for substructural logics from a semantical perspective, Colloquium talk, University of Vienna, November 2006.

Semantics for substructural logics, Colloquium talk, University of Milan, Italy, October 2006.

Decidability for involutive residuated lattices, Colloquium talk, University of Szeged, Hungary, October 2006.

Glivenko theorems for substructural logics, Logic Colloquium 2006, Association for Symbolic Logic European Summer Meeting, Nijmegen, Netherlands, July 2006.

Lack of structural rules and algebraic semantics, Ordered structures in many-valued logics, Massa Lubrense, Sorrento, Italy, May 2006.

Algebraic methods in substructural logics, Logic Colloquium 2005, Association for Symbolic Logic European Summer Meeting, Athens, Greece, June 2005.

Equivalence of consequence relations: an order-theoretic and categorical perspective, Algebraic and topological methods in non-classical logics, Barcelona, Spain, June 2005.

Non-associative residuated lattices, American Mathematical Society 2004 Southeastern Section Meeting, special session: "Universal Algebra and Lattice Theory," Nashville, October 2004.

Translations in substructural logic, Logic Colloquium 2004, Association for Symbolic Logic European Summer Meeting, Torino, Italy, July 2004.

Non-associative substructural logics: algebraization, cut elimination and separation, Conference on Residuated Structures and Many-Valued Logics, Patras University, Greece, June 2004.

Residuated lattices – an introduction, Colloquium talk, Department of Mathematics, Aristotle University of Thessaloniki, Greece, May 2004.

Involutive commutative distributive residuated lattices, 37th Mathematical Logic Group meeting, Shizuoka, Japan, December 2003.

The join of finitely many varieties of residuated lattices, Annual Meeting of the Association for Symbolic Logic, special session: “Algebraic Logic and Universal Algebra,” University of Illinois at Chicago, June 2003.

Decision problems for commutative distributive residuated lattices, Colloquium talk, University of Saskatoon, Canada, May 2003.

Generalized MV-algebras, Conference on Ordered Algebraic Structures, Vanderbilt University, March 2003.

A Priestley duality for bounded distributive residuated lattices, Annual meeting of the American Mathematical Society, special session: “The Many Lives of Lattice Theory and the Theory of Ordered Sets, with Connections to Combinatorics,” Baltimore, January 2003.

A categorical equivalence for integral GMV-algebras, Workshop on Algebra and Substructural Logics, Japan Advanced Institute of Science and Technology, November 2002.

Continuum many idempotent minimal residuated-lattice varieties, International Conference on Modern Algebra in conjunction with the 17th annual Shanks Lectures, Vanderbilt University, May 2002.

Varieties of residuated lattices generated by positive universal classes, Conference on Ordered Algebraic Structures, Vanderbilt University, March 2002.

The undecidability of the word problem for the variety of distributive residuated lattices, Conference on Lattice-Ordered Groups and f-Rings, University of Florida, March 2001.

The subvariety lattice of residuated lattices, Workshop on Ordered Algebraic Structures, Vanderbilt University, March 2000.

Research and educational activities

Member of the Editorial board of the journal *Soft Computing*.

Referee for the journals *Algebra Universalis*, *Journal of Symbolic Logic*, *Studia Logica*, *Soft Computing*, *Journal of Logic and Computation*, *Fuzzy Sets and Systems*, *Czechoslovak Mathematical Journal* and *Lecture Notes in Computer Science*.

Examiner of the Master’s thesis of Ms. Ai-ni Hsieh, University of Natal, South Africa.

Assisting in the supervision of graduate students at the Japan Advanced Institute of Science and Technology, 2003-2004 and since 2005.

Founder, organizer and presenter at the Undergraduate Seminar in Mathematics of Vanderbilt University, 2000-2003.

Mentor for new Teaching Assistants in the Department of Mathematics of Vanderbilt University, 2000-2003.

Member of the American Mathematical Society (since 1998), the Association of Symbolic Logic (2005), and the Mathematical Association of America (2004).