

PRESENTATIONS OF STEFAN MILIUS

INVITED PRESENTATIONS

- 6/2019 *From Equational Specifications of Algebras with Structure to Varieties of Data Languages* presented at the 8. Conference on Algebra and Coalgebra in Computer Science (CALCO 2019), London, UK
- 3/2018 *Eilenberg Theorems for Free*, presented at the seminar of the DFG graduate school Quantitative Logics and Automata (QuantLA), Leipzig, Germany
- 6/2017 *Eilenberg Theorems for Free*, presented at the Special Session on Algebraic Automata Theory at the 33th Conference on Mathematical Foundations of Programming Semantics (MFPS XXXIII), Ljubljana, Slovenia
- 11/2016 *One Eilenberg Theorem to Rule Them All* presented at the workshop {Symmetry, Logic, Computation}, Simons Institute for the Theory of Computing, Berkeley, CA, USA
- 9/2015 *The locally finite fixpoint and its properties: a new foundation for finitary corecursion*, presented at the workshop on Logic and Computation, Eleventh International Tbilisi Symposium on Language, Logic and Computation, Tbilisi, Georgia
- 3/2010 *CIA Structures and the Semantics of Recursion*, presented at the Coalgebra Day, Amsterdam, Netherlands
- 3/2009 *Elgot Theories: A new Perspective of Iteration Theories*, presented at the 4th workshop on Applied and Computational Category Theory (ACCAT'09), York, England
- 4/2008 *Coalgebras and the Axioms of Recursion*, presented at the 9th workshop on Coalgebraic Methods in Computer Science (CMCS'08), Budapest, Hungary
- 9/2006 *Coalgebras, Monads and Semantics*, presented at the 15th annual conference on Computer Science Logic (CSL'06), Szeged, Hungary
- 8/2006 *Coalgebras, Monads and Semantics*, presented at the 4th Irish Conference on the Mathematical Foundations of Computer Science and Information Technology 2006 (MFCSIT'06), Cork, Ireland

SCIENTIFIC PRESENTATIONS

- 9/2019 *Efficient Coalgebraic Partition Refinement*, presented at the seminar of the Principles of Programming, Logic and Verification group, University College London, UK
- 8/2019 *Graded Monads and Graded Logics for the Linear Time – Branching Time Spectrum* presented at the 30th International Conference on Concurrency Theory (CONCUR'19), Amsterdam, The Netherlands
- 4/2019 *Reachability for Coalgebras*, presented at the meeting of the IFIP WG 1.3, Prague, Czech Republic
- 3/2019 *Efficient Coalgebraic Partition Refinement*, presented at the Helmut Veith Memorial Seminar 2019, Turracher Hütte, Austria
- 2/2019 *Eilenberg Theorems for Free*, presented at the RISE seminar at the TU Vienna, Austria
- 7/2018 *Efficient Coalgebraic Partition Refinement*, presented at the meeting of the IFIP WG 1.3, London, UK
- 4/2018 *On Algebras with Effectful Iteration*, presented at the 15th workshop on Coalgebraic Methods in Computer Science (CMCS'18), Thessaloniki, Griechenland
- 8/2017 *Eilenberg Theorems for Free*, presented at the 42nd International Symposium on Mathematical Foundations of Computer Science (MFCS 2017), Aalborg, Denmark

- 6/2017 *Proper Functors and Their Rational Fixed Point*, presented at the 7th Conference on Algebra and Coalgebra in Computer Science (CALCO'17), Ljubljana, Slovenia
- 1/2017 *One Eilenberg Theorem to Rule Them All*, presented at the meeting of the IFIP WG 1.3, Binz, Germany
- 11/2015 *Formal verification of systems of synchronous software components*, presented at the seminar of the Principles of Programming, Logic and Verification group, University College London, UK
- 9/2015 *Uniform Eilenberg Theorem: Algebraic Automata Theory based on Categories*, presented at the seminar of the graduate school Quantitative Logics and Automata, Leipzig, Germany
- 9/2014 *Uniform Eilenberg Theorem: Syntactic Algebras For Free*, presented as observer at the meeting of the IFIP WG 1.3, Sinaia, Romania
- 8/2014 *Guard Your Daggers and Traces: On the Equational Properties of Guarded (Co-)Recursion*, presented at the seminar of the Logic and Semantics Group, Aarhus, Denmark
- 1/2014 *Mathematical Operational Semantics and Finitary System Behaviour*, presented as observer at the meeting of the IFIP WG 1.3, Theddington, England
- 3/2014 *Generalized Eilenberg Theorem: Local Varieties of Languages*, presented at the workshop on Duality and Probabilistic Systems, Bellairs Research Institute, Barbados
- 11/2013 *Coalgebras and Generalized Regular Expressions* presented at the 20th annual meeting of the GI group "Logik in der Informatik" (LogInf workshop), Bremen, Germany
- 10/2013 *Guard Your Daggers and Traces: On the Equational Properties of Guarded (Co-)Recursion*, presented at the NII Shonan Meeting on Coinduction for Computation Structures and Programming Languages, Shonan Village Center, Japan
- 6/2013 *Rational Operational Models* presented at the conference on Mathematical Foundations of Programming Semantics (MFPS XXIX), Tulane University, New Orleans LA, USA
- 3/2013 *Proper Functors and Regular Behavior over Algebraic Categories*, presented at the Workshop on Coalgebras in Computation, Logic, Probability and Quantum Physics, Bellairs Research Institute, Barbados
- 3/2013 *Coalgebras and the Axioms of Iteration*, presented as observer at the meeting of the IFIP WG 1.3 (Foundations of System Specification), Rome, Italy
- 2/2013 *Coalgebras and the Axioms of Iteration*, inaugural lecture as "Privatdozent", Braunschweig, Germany
- 12/2012 *Formale Verifikation von Systemen synchroner Software-Komponenten*, scientific talk and colloquium for my habilitation
- 10/2012 *On the Specification of Operations on the Rational Behaviour of Systems*, presented at the Seminar on Coalgebraic Logic, Schloss Dagstuhl, Germany
- 6/2012 *Sound and Complete Axiomatizations of Coalgebraic Language Equivalence*, presented at the seminar of the chair of Theoretical Computer Science, FAU Erlangen, Germany
- 4/2012 *Sound and Complete Axiomatizations of Coalgebraic Language Equivalence*, presented at the workshop Algebra & Coalgebra Meet Proof Theory (ALCOP'12), Prague, Czech Republic
- 4/2012 *On finitary functors and their presentation*, presented at the 11th workshop on Coalgebraic Methods in Computer Science (CMCS'12), Tallin, Estonia

- 3/2012 *Wellpointed coalgebras*, presented at the 15th international conference on Foundations of Software Science and Computation Structures (FOSSACS'12), Tallin, Estonia
- 1/2012 *Koalgebren und verallgemeinerte reguläre Ausdrücke*, presented at the Informatik-Kolloquium, Braunschweig, Germany
- 9/2011 *Power-Set Functors and Saturated Trees*, presented at the 20th Conference on Computer Science Logic (CSL'11), Bergen, Norway
- 8/2011 *From Corecursive Algebras to Corecursive Monads*, presented at the 4th Conference on Algebra and Coalgebra in Computer Science (CALCO'11), Winchester, England
- 11/2010 *On Rational Fixed Points of Endofunctors*, presented at the 91st Peripatetic Seminar on Sheaves and Logic (PSSL'91), Amsterdam, The Netherlands
- 7/2010 *A Sound and Complete Calculus for finite Stream Circuits*, presented at the 25th Annual IEEE Symposium on Logic in Computer Science (LICS'10), Edinburgh, Scotland
- 4/2010 *Semantics of Higher-Order Recursion Schemes*, presented at the 90th Peripatetic Seminar on Sheaves and Logic (PSSL'90), Braunschweig, Germany
- 3/2010 *Recursive Program Schemes and Context-Free Monads*, presented at the 10th workshop on Coalgebraic Methods in Computer Science (CMCS'10), Paphos, Cyprus
- 3/2010 *CIA Structures and the Semantics of Recursion*, presented at the 13th international conference on Foundations of Software Science and Computation Structures (FOSSACS'10), Paphos, Cyprus
- 2/2010 *A Sound and Complete Calculus for Linear Systems*, presented at the seminar of the logic group of the department of mathematics, Indiana University, Bloomington IN, USA
- 12/2009 *A Sound and Complete Calculus for Linear Systems*, presented at the Seminar on Coalgebraic Logic, Schloss Dagstuhl, Germany
- 9/2009 *Semantics of Higher-Order Recursion Schemes*, presented at the third conference on Algebra and Coalgebra in Computer Science (CALCO'09), Udine, Italy
- 8/2009 *The category-theoretic solution of higher-order program schemes*, presented at the seminar of the logic group of the department of mathematics, Indiana University, Bloomington IN, USA
- 4/2009 *Elgot Theories: A new Perspective of Iteration Theories*, presented at the 25th conference on the Mathematical Foundations of Programming Semantics, Oxford, England
- 3/2009 *A Description of Iterative Reflection of Monads*, presented at the 12th international conference on Foundations of Software Science and Computation Structures (FOSSACS'09), York, England
- 11/2007 *What are Iteration Theories?*, presented at the 14th annual meeting of the GI group "Logik in der Informatik" (LogInf workshop), Braunschweig, Germany
- 10/2007 *Elgot Monads*, presented at the Workshop on Categorical Methods in Algebra, Topology and Computer Science (Workshop in honour of Jiří Adámek and Walter Tholen, on the occasion of their sixtieth birthday), Coimbra, Portugal
- 8/2007 *What are Iteration Theories?*, presented at the 32nd International Symposium on Mathematical Foundations of Computer Science (MFCS'07), Český Krumlov, Czech Republic
- 10/2006 *Coalgebras, Monads and Semantics*, presented at the 13th annual meeting of the GI group "Logik in der Informatik" (LogInf workshop), Dortmund, Germany
- 6/2006 *Recursive Coalgebras*, presented at the conference on Category Theory (CT'06), White Point Beach NS, Canada

- 5/2006 *Koalgebren, Monaden und Semantik*, presented at the colloquium for the dissertation award of the GI (“Gesellschaft für Informatik”), Schloss Dagstuhl, Germany
- 5/2006 *Elgot-Algebren*, presented at the seminar of the working group of Prof. Krieg-Brückner, University of Bremen, Germany
- 3/2006 *How iterative are iterative algebras*, presented at the 8th workshop on Coalgebraic Methods in Computer Science (CMCS’06), Vienna, Austria
- 3/2006 *Recursive Coalgebras*, presented at the seminar of the logic group of the department of mathematics, Indiana University, Bloomington IN, USA
- 2/2006 *Recursive Coalgebras*, presented at the Oxford Seminar on Informatic Structures (OASIS), Oxford Computing Laboratory, England
- 9/2005 *The Category Theoretic Solution of Recursive Program Schemes*, presented at the first conference on Algebra and Coalgebra in Computer Science (CALCO’05), Swansea, Wales
- 5/2005 *Elgot Algebras*, presented at the conference on Mathematical Foundations of Programming Semantics (MFPS) XXI, Birmingham, England
- 4/2005 *Elgot Algebras*, presented at the 81st Peripatetic Seminar on Sheaves and Logic (PSSL’81), Coimbra, Portugal
- 8/2004 *Parametrized Iterativity*, presented at the conference on Category Theory and Computer Science (CTCS’04), Copenhagen, Denmark
- 7/2004 *Parameterized Iterativity*, presented at the International Category Theory Conference (CT’04), Vancouver BC, Canada
- 4/2004 *The Category Theoretic Solution of Recursive Program Schemes*, presented at the spring school on Logic in Computer Science of the GKLI (“Graduiertenkolleg Logik in der Informatik”), Venice, Italy
- 3/2004 *From Iterative Algebras to Iterative Theories*, presented at the workshop on Coalgebraic Methods in Computer Science (CMCS’04), Barcelona, Spain
- 11/2003 *Completely Iterative Algebras and complete Elgot algebras*, presented at the workshop on Domains, Topology and Constructive Logic at the Ludwig-Maximilians-Universität, München, Germany
- 9/2003 *Von iterativen Algebren zu iterativen Theorien*, presented at the Algebra-Sektion of the DMV-Tagung at the University of Rostock, Germany
- 9/2003 *Final Coalgebras: Working with the CIA*, presented at the European Category Theory Meeting (ECTM’03), Haute-Bodeux, Belgium
- 6/2003 *Coalgebras and Completely Iterative Theories*, presented at Indiana University, Bloomington IN, USA
- 1/2003 *Koalgebren und Vollständig Iterative Theorien*, presented at the Katmat Seminar of the University of Bremen, Germany
- 11/2002 *Coalgebra and (Completely) Iterative Theories*, presented at the Computer Science Seminar of the University of Leicester, England
- 9/2002 *On Iteratable Endofunctors (and Completely Iterative Monads)*, presented at the Category Seminar of the Department of Mathematics of York University, Toronto ON, Canada
- 8/2002 *On Iteratable Endofunctors (and Completely Iterative Monads)*, presented at the conference on Category Theory and Computer Science (CTCS’02), Ottawa ON, Canada
- 7/2002 *Parametric Corecursion and Completely Iterative Monads*, presented at the workshop on Fixed Points in Computer Science (FICS’02), Copenhagen, Denmark

- 4/2002 *Final Coalgebras and A Solution Theorem for Arbitrary Endofunctors*, presented at the workshop on Coalgebraic Methods in Computer Science (CMCS'02), Grenoble, France
- 11/2001 *Infinite Trees and Completely Iterative Theories: A Coalgebraic View*, presented at the Algebra Seminar of the Masaryk University, Brno, Czech Republic
- 11/2001 *Rational Trees: A coalgebraic View*, presented at the seminar of Department of Mathematics at the Czech Technical University, Prague, Czech Republic
- 9/2001 *Free Iterative Theories: A coalgebraic view*, presented at the workshop on Fixed Points in Computer Science (FICS'01), Florence, Italy
- 6/2001 *Infinite Trees and (Completely) Iterative Monads*, presented at the 75th Peripatetic Seminar on Sheaves and Logic (PSSL'75), Institut Mittag-Leffler, Stockholm, Sweden
- 11/2000 *Factorization systems in 2-categories*, presented at the 74th Peripatetic Seminar on Sheaves and Logic (PSSL'74), Cambridge, England
- 6/2000 *Colimits of ω -chains in categories of relations*, presented at the workshop on Foundational Methods in Computer Science (FMCS'00), Vancouver, Canada

OTHER PRESENTATIONS

- 9/2008 *Model-driven software development: needs and experiences in rail automation*, presented at the workshop on Formal Methods for Industrial Critical Systems (FMICS'08), l'Aquila, Italy
- 11/2007 *Model-based development for dependable software: needs and experiences in rail automation*, presented at the first experience exchange "Dependability@Siemens" on Management and Engineering of Dependable Systems, Munich, Germany
- 10/2007 *Modellbasierte Entwicklung sicherheitsrelevanter Software: ein Erfahrungsbericht*, presented in the series of lectures "Lessons Learned@RD" at Siemens Rail Automation, Braunschweig, Germany
- 10/2007 *Achszähler in SCADE*, presented in the series of lectures "Innovation-Corner" at Siemens Rail Automation, Braunschweig, Germany
- 6/2007 *Model-based development of an axle counter in SCADE*, presented at the workshop on Tools for the Model-based Development of Certifiable, Dependable Systems, Schloss Dagstuhl, Germany