Amy P. Felty

Curriculum Vitae

School of Electrical Engineering and Computer Science
University of Ottawa
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Employment

- January 2023–. Professor Emeritus, University of Ottawa, School of Electrical Engineering and Computer Science.
- May 2007–December 2022. Professor, University of Ottawa, School of Electrical Engineering and Computer Science.
- January 2000–April 2007. Associate Professor, University of Ottawa, School of Electrical Engineering and Computer Science.
- October 1991–December 1999. Research Scientist, Bell Labs, Lucent Technologies, Software Principles Research Department.
- September 1989–September 1991. Visiting Researcher, INRIA (National Institute for Research in Computer Science and Control), Rocquencourt and Sophia-Antipolis, France.

Education

- Ph.D. in Computer Science. University of Pennsylvania, August 1989. Advisor: Dale Miller.
- M.S.E. in Computer Science. University of Pennsylvania, December 1986. Advisor: Dale Miller.
- B.A. Colgate University, Hamilton, NY, May 1984. Major: Computer Science. Minor: Mathematics.

Honors and Awards

- Rubinoff Award for outstanding dissertation, University of Pennsylvania, May 1990.
- Faculty Nomination for AT&T Foundation Scholarship Program and IBM Research Fellowship, University of Pennsylvania.
- Colgate University: Phi Beta Kappa Honor Society; Charles A. Dana Scholar Award for academic achievement and leadership; First Place, Freshmen Math Prize Exam.

Invited Talks

Invited Speaker at Conferences and Workshops

- Eastern Canada Logic and Programming Seminar (ECLAPS), Montreal, Canada, March 25, 2023.
- International Conference on Interactive Theorem Proving (ITP), Haifa, Israel, August 7, 2022.
- International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP), Haifa, Israel, August 1, 2022.
- International Conference on Formal Structures for Computation and Deduction (FSCD), Dortmund, Germany, June 26, 2019.
- ACM SIGPLAN International Conference on Certified Programs and Proofs (CPP), Lisbon, Portugal, January 14, 2019.
- International Workshop on Logical and Semantic Frameworks with Applications (LSFA), Fortaleza, Brazil, September 26, 2018.
- ACM SIGPLAN Workshop on Mathematically Structured Functional Programming, Baltimore, Maryland, September 25, 2010.
- ACM SIGPLAN Workshop on Mechanizing Metatheory, Baltimore, Maryland, September 25, 2010.
- Conference of the European Union Types Program. Invited Talk, May 3, 2007.
- Federated Conference on Rewriting, Deduction, and Programming (RDP), Nara Japan. Keynote Lecture of joint meetings of International Conference on Typed Lambda Calculi and Applications (TLCA) and International Conference on Rewriting Techniques and Applications (RTA), April 21, 2005.
- 1997 Mexican Conference on Computer Science, Querétaro City, Mexico. Keynote Lecture in Logic and Computer Science Track, September 13, 1997.

Invited Tutorials

- Conference on Mathematical Foundations of Programming Semantics, Ottawa, Canada. One hour tutorial, May 9, 2010.
- Proofs-as-Programs Paradigm, Summer School, Eugene, OR, USA. Three hours of lecture. June 25 and 27, 2002.
- 1997 Mexican Conference on Computer Science, Querétaro City, Mexico. Six hour tutorial. September 11, 1997.
- Tenth Conference on Automated Deduction, Kaiserslautern, Germany. One hour tutorial. July 24, 1990.

Workshop Talks

- Dagstuhl Seminar on The Next Generation of Deduction Systems: from Composition to Compositionality, Dagstuhl, Germany, November 23, 2023.
- Dagstuhl Seminar on Universality of Proofs, Dagstuhl, Germany, October 18, 2016.

- Types for Proofs and Programs, Paris, France, May 12, 2014.
- Workshop on Declassification and Dynamic Security Policies, Dublin, Ireland, June 6, 2007.
- Dagstuhl Seminar on Mobility, Ubiquity, and Security, Dagstuhl, Germany, February 27, 2007.
- Construstion and Analysis of Safe, Secure, and Interoperable Smart Cards (CASSIS), Marseille, France, March 11, 2004.
- Dagstuhl Seminar on Deduction and Infinite-State Model Checking, Dagstuhl, Germany, April 24, 2003.
- Annual Meeting of the Association for Symbolic Logic, Las Vegas, NV, USA. Special Session on Logic in Computer Science, June 3, 2002.
- Dagstuhl Seminar, Dependent Type Theory meets Practical Programming, Dagstuhl, Germany, August 20 and 24, 2001.
- Workshop on Proof-Carrying Code, Santa Barbara, CA, USA, June 29, 2000.
- Canadian Mathematical Society 1999 Winter Meeting, Montreal, Quebec, Canada, December 11, 1999.
- Dagstuhl Seminar on Deduction, Dagstuhl, Germany, March 23, 1995.
- Workshop on Proving Properties of Programming Languages, Sophia-Antipolis, France, September 21, 1993.
- Workshop on Formal Methods in Software Engineering: Automated Reasoning, Philadelphia, PA, USA, May 11, 1993.
- Workshop on Logic meets Computing: Specifications, Synthesis and Verification of Software, at INRIA 25th Anniversary Conference on Computer Science and Control, Paris, France, December 9, 1992.
- Metaprogramming Workshop, Bell Labs, Murray Hill, NJ, USA, June 3, 1992.
- Third International Workshop on Extensions to Logic Programming, Bologna, Italy, February 28, 1992.
- Second Annual Esprit Workshop on Logical Frameworks, Edinburgh, Scotland, May 24, 1991.
- Deductive Systems, Mathematisches Forschungsinstitut Oberwolfach, Germany, April 29, 1991.
- Second Workshop on Extensions of Logic Programming, Stockholm, Sweden, January 27, 1991.
- First Annual Esprit Workshop on Logical Frameworks, Sophia-Antipolis, France, May 10, 1990.
- First Workshop on Extensions of Logic Programming, University of Tübingen, Germany, December 9, 1989.
- Workshop on Proof, Cambridge, England, July 14, 1988.
- Metalanguage and Tools for Mechanizing Formal Deductive Theories, Pittsburgh, PA, USA, November 13, 1987.

Colloquia and Seminar Talks

- Inria Saclay, Joint Comete-Parsifal Seminar, December 11, 2013.
- McGill University, Computer Science Colloquium, March 9, 2007.
- McGill University, Logic and Computation Seminars, January 25 & April 20, 2007.
- Clarkson University, Computer Science Colloquium, April 13, 2006.
- University of Montreal, Keynote Talk, First Quebec Programming Languages Seminar, April 26, 2004.
- Wayne State University, Computer Science Seminar, December 11, 2001.
- University of Virginia, "Top Gun" Distinguished Lecture Series in Computer Science, October 8, 2001.
- Cornell University, Programming Languages Seminar, November 12, 1999.
- Colgate University, Science Division Colloquium, February 13, 1998.
- University of Iowa, November 21, 1997.
- INRIA, Sophia-Antipolis, France, November 2, 1995.
- University of Pennsylvania, Logic and Computation Seminar, January 23, 1995.
- Wesleyan University, May 4, 1993.
- Pennsylvania State University, February 25, 1993.
- Technical University of Munich, December 17, 1992.
- University of Cambridge, England, December 15, 1992.
- Carnegie Mellon University, Principles of Programming Seminar, January 10, 1992.
- INRIA, Rocquencourt, France, January 11, 1991.
- LISAN, Sophia-Antipolis, France, Seminar in Mathematics and Computer Science, June 1, 1990.
- IRISA, Rennes, France, February 9, 1990.
- INRIA, Rocquencourt, France, January 26, 1990.
- INRIA, Sophia-Antipolis, France, Seminar in Programming Languages and Semantics, October 12, 1989.
- Carnegie Mellon University, August 25, 1989.
- INRIA, Sophia-Antipolis, France, July 18, 1988.
- University of Edinburgh, July 11, 1988.
- University of Texas at Austin, March 2, 1988.

Conference and Workshop Committees

Program Chair

- Program Chair, 7th International Conference on Formal Structures for Computation and Deduction (FSCD'22), Haifa, Israel, August 2022.
- Program Co-Chair, 14th International Workshop on Logical and Semantic Frameworks with Applications (LSFA'19), Natal, Brazil, August 2019.

- Program Co-Chair, 1st, 2nd, and 3rd Women in Logic Workshop (WiL), Reykjavik, Iceland, June 2017, Oxford, UK, July 2018 and Vancouver, Canada, June 2019.
- Program Co-Chair, 7th ACM SIGPLAN International Conference on Certified Programs and Proofs (CPP'18), Los Angeles, USA, January 2018.
- Program Co-Chair, 25th International Conference on Automated Deduction (CADE'15), Berlin, Germany, August 2015.
- Program Co-Chair, 9th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'14), Vienna, Austria, July 2014.
- Program Co-Chair, 3rd International Conference on Interactive Theorem Proving (ITP'12), Princeton, New Jersey, USA, August 2012.
- Program Co-Chair, 4th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'09), Montréal, Canada, August 2009.
- Program Chair, 7th International Symposium on Principles and Practice of Declarative Programming (PPDP'05), Lisbon, Portugal, July 2005.
- Program Chair, 1st International Workshop on Logical Frameworks and Meta-languages (LFM'99), Paris, France, September 1999.

Program Committee Member

- 10th International Workshop on Coq for Programming Languages (CoqPL), London, UK, January 2024.
- 18th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'23), Rome, Italy, July 2023.
- 15th International Symposium on Foundations & Practice of Security (FPS'22), Ottawa, Canada, December 2022.
- 6th International Conference on Formal Structures for Computation and Deduction (FSCD'21), online, July 2021.
- The Coq Proof Assistant Workshop (Coq'21), July 2021.
- 12th International Conference on Interactive Theorem Proving (ITP'21), online, June 2021.
- 15th, 16th, and 17th Workshop on Logical and Semantic Frameworks with Applications (LSFA), online August 2020, online July 2021, Belo Horizonte, Brazil, September 2022.
- 5th Workshop on Type-Driven Development (TyDe'20), online, August 2020.
- 4th, 5th, 6th, and 7th Women in Logic Workshop (WiL), online June 2020, online June 2021, Haifa, Israel, July 2022, Rome, Italy, July 2023.
- 10th International Conference on Interactive Theorem Proving (ITP'19), Portland, USA, September 2019.
- 6th International Workshop on Proof eXchange for Theorem Proving (PxTP'19), Natal, Brazil, August 2019.
- 14th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'19), Vancouver, Canada, June 2019.
- International Conference on Formal Methods in Software Engineering (FormaliSE'19), Montreal, Canada, May 2019.

- 19th International Symposium on Principles and Practice of Declarative Programming (PPDP'17), Namur, Belgium, October 2017.
- 8th International Conference on Interactive Theorem Proving (ITP'17), Brasilia, Brazil, September 2017.
- 12th Workshop on Logical and Semantic Frameworks with Applications (LSFA'17), Brasilia, Brazil, September 2017.
- 12th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'17), Oxford, UK, September 2017.
- 26th International Conference on Automated Deduction (CADE'17), Gothenbug, Sweden, August 2017.
- 11th International Conference on Verification and Evaluation of Computer and Communication Systems (VECos'17), Montreal, Canada, August 2017.
- 7th International Conference on Interactive Theorem Proving (ITP'16), Nancy, France, August 2016.
- 31st International ACM/IEEE Symposium on Logic in Computer Science (LICS'16), New York City, USA, July 2016.
- 4th ACM SIGPLAN Conference on Certified Programs and Proofs (CPP'15), Mumbai, India, January 2015.
- 5th International Conference on Interactive Theorem Proving (ITP'14), Vienna, Austria, July 2014.
- International Joint Conference on Rewriting Techniques and Applications and on Typed Lambda Calculi and Applications (RTA-TLCA'14), Vienna, Austria, July 2014.
- 4th International Conference on Interactive Theorem Proving (ITP'13), Rennes, France, July 2013.
- 22nd International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX'13), Nancy, France, September 2013.
- 8th Workshop on Logical and Semantic Frameworks with Applications (LSFA'13), Sao Paulo, Brazil, September 2013.
- 20th Workshop on Logic, Language, Information, and Computation (WoLLIC'13), Darmstadt, Germany, August 2013.
- 4th International Conference on Interactive Theorem Proving (ITP'13), Rennes, France, July 2013.
- 2nd International Conference on Certified Programs and Proofs (CPP'12), Kyoto, Japan, December 2012.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'12), Riva del Garda (Trento), Italy, March 2012.
- 2nd International Conference on Interactive Theorem Proving (ITP'11), Nijmegen, The Netherlands, August 2011.
- Workshop on Proof eXchange for Theorem Proving (PxTP'11), Wroclaw, Poland, August, 2011.
- Workshop on Proof Search in Axiomatic Theories and Type Theories (PSATTT'11), Wroclaw, Poland, August, 2011.

- 13th International Conference on Principles and Practice of Declarative Programming (PPDP'11), Odense, Denmark, July 2011.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'11), TaiChung, Taiwan, March 2011.
- 25th International IEEE Symposium on Logic in Computer Science (LICS'10), Edinburgh, Scotland, July 2010.
- 5th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'10), Edinburgh, Scotland, July 2010.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'09), Waikiki Beach, Hawaii, USA, March 2009.
- 17th EACSL Annual Conference on Computer Science Logic (CSL'08), Bertinoro, Italy, September 2008.
- International Workshop on Security Issues in Concurrency (SecCo'08), Toronto, Canada, August 2008.
- International Workshop on Formal Techniques for Java-like Programs (FTfJP'08), Paphos, Cyprus, July 2008.
- 5th ACM Workshop on Formal Methods in Security Engineering: From Specifications to Code (FMSE'07), George Mason University, USA, November 2007.
- 20th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'07), Kaiserslautern, Germany, September 2007.
- 21st International IEEE Symposium on Logic in Computer Science (LICS'06), Seattle, Washington, USA, August, 2006.
- 3rd International Joint Conference on Automated Reasoning (IJCAR'06), Seattle, Washington, USA, August, 2006.
- International Workshop on Proof-Carrying Code (PCC 2006), Seattle, Washington, USA, August, 2006.
- 3rd International Workshop on MEchanized Reasoning about Languages with variable bINding (MERLIN'05), Tallinn, Estonia, September, 2005.
- 18th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'05), Oxford, UK, August 2005.
- 20th International Conference on Automated Deduction (CADE'05), Tallinn, Estonia, July 2005.
- 14th International Conference on Compiler Construction (CC'05), Edinburgh, Scotland, April 2005.
- 17th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'04), Park City, UT, USA, September 2004.
- 2nd International Joint Conference on Automated Reasoning (IJCAR'04), Cork, Ireland, July 2004.
- 4th International Workshop on Logical Frameworks and Meta-languages (LFM'04), Cork, Ireland, July 2004.
- 5th International Workshop on Strategies in Automated Deduction (STRATEGIES'04), Cork, Ireland, July 2004.

- 10th International Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR'03), Almaty, Kazakhstan, September 2003.
- 16th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'03), Rome, Italy, September 2003.
- 2003 ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI'03), San Diego, CA, USA, June 2003.
- 30th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL'03), January 2003.
- 4th International Conference on Principles and Practice of Declarative Programming (PPDP'02), Pittsburgh, PA, USA, October 2002.
- 3rd International Workshop on Logical Frameworks and Meta-languages (LFM'02), Copenhagen, Denmark, July 2002.
- 1st International Workshop on MEchanized Reasoning about Languages with variable bINding (MERLIN'01), Siena, Italy, June 2001.
- 1st International Conference on Computational Logic (CL'00), Theory and Extensions stream, London, England, July 2000.
- 2nd International Workshop on Logical Frameworks and Meta-languages (LFM'00), Santa Barbara, CA, USA, June 2000.
- 9th International Conference on Analytic Tableaux and Related Methods (TABLEAUX'00), St. Andrews, Scotland, July 2000.
- 8th International Conference on Analytic Tableaux and Related Methods (TABLEAUX'99), Saratoga Springs, NY, USA, June 1999.
- 11th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'98), Canberra, Australia, September 1998.
- 3rd International Workshop on Higher-Order Algebra (HOA'97), Southampton, UK, September 1997.
- 10th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'97), Murray Hill, NJ, USA, August 1997.
- 12th International IEEE Symposium on Logic in Computer Science (LICS'97), Warsaw, Poland, June 1997.
- 13th International Conference on Automated Deduction (CADE'96), New Brunswick, NJ, USA, July 1996.
- 5th International Workshop on Extensions of Logic Programming (ELP'96), Leipzig, Germany, March 1996.

Awards Committees

- Member, Skolem Award Committee, International Conference on Automated Deduction test-of-time awards for 1980, 1992, 2000, and 2011, presented in 2021
- Chair, LICS Test-of-Time (20 years) Award Committee, International ACM/IEEE Symposium on Logic in Computer Science, 1997/2017 Award
- Member, LICS Test-of-Time (20 years) Award Committee, International ACM/IEEE Symposium on Logic in Computer Science, 1996/2016 Award

Conference Organization

- Equity, Diversity and Inclusion Co-Chair, International Conference on Software Engineering (ICSE'25), Ottawa, Canada, May 2025.
- Member, Steering Committe, International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP), September 2022–
- Member, Steering Committee, International Conference on Formal Structures for Computation and Deduction (FSCD), August 2022–
- Member, Steering Committee, Workshop on Logical and Semantic Frameworks with Applications (LSFA), August 2020–August 2023.
- Member, Steering Committee, Workshop on Women in Logic (WiL), June 2019–
- Member, Steering Committee, International Conference on Certified Programs and Proofs (CPP), January 2018–February 2021.
- Member, Steering Committee, International Conference on Interactive Theorem Proving (ITP), August 2012–September 2019.
- Member, Steering Committe, International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP), October 2009–September 2019.
- Member, Committe on Logic in North America, Association for Symbolic Logic (ASL), January 2008–December 2013.
- Member, Steering Committe, International Symposium on Principles and Practice of Declarative Programming (PPDP), July 2005–September 2010.
- International Conference on Automated Deduction (CADE), Trustee and Secretary: May 2004–May 2007, Elected Trustee: October 2007–October 2015.
- Conference Co-Chair, International IEEE Symposium on Logic in Computer Science (LICS'03), Ottawa, Canada, June 2003.
- Organizing Committee Member, International IEEE Symposium on Logic in Computer Science (LICS), 1993–1997 and 2003–2006.
- Workshop Chair, Colloquium on Principles, Logics, and Implementations of High-Level Programming Languages (PLI'00), Montreal, Quebec, Canada, September 2000.
- Organizing Committee Member, 10th International Conference on Theorem Proving in Higher-Order Logics (TPHOLs'97), Murray Hill, NJ, USA, August 1997.
- Conference Chair, 13th International Conference on Automated Deduction (CADE'96), New Brunswick, NJ, USA, July 1996.
- Organizing Committee Member, First International Federated Logic Conference (FLoC'96), New Brunswick, NJ, USA, July 1996.
- Publicity Co-Chair, International IEEE Symposium on Logic in Computer Science (LICS), 1993–1996.

Editorial Duties

- Special Issue Co-Editor, *Mathematical Structures in Computer Science*, Special Issue for the Logical and Semantic Frameworks with Applications Workshops 2019 and 2020, (32)9, October 2022.

- Special Issue Co-Editor, *Logical Methods in Computer Science*, Selected Papers of the 7th International Conference on Formal Structures for Computation and Deduction (FSCD 2022), September 2022–

- Special Issue Co-Editor, *Mathematical Structures in Computer Science*, Special Issue on Structural Proof Theory, Automated Reasoning and Computation in Celebration of Dale Miller's 60th Birthday, 29(8), September 2019.

- Editorial Board, *Journal of Applied Logics: IfCoLog Journal*, College Publications, 2018–

- Special Issue Co-Editor, *Journal of Automated Reasoning*, Springer, Selected Extended Papers of the 25th International Conference on Automated Deduction, 58(3), March 2017.

- Editorial Board, *Journal of Automated Reasoning*, Springer, 2016–

- Editorial Board, *PeerJ Computer Science*, 2015–2022.

- Editorial Board, *IfCoLog Journal of Logics and their Applications*, Elsevier, 2015–2018.

- Editorial Board, *Journal of Applied Logic*, Elsevier 2005–2018.

- Special Issue Editor, *Journal of Automated Reasoning*, Kluwer Academic Publishers, Special Issue on Proof-Carrying Code, 31(3–4), November 2003.

- Special Issue Co-Editor, *Journal of Automated Reasoning*, Kluwer Academic Publishers, Special Issue on Logical Frameworks and Metalanguages, 27(1), July 2001.

- Newsletter Area Editor, Theorem Proving area, *Association of Logic Programming Newsletter*, January 2001–May 2005.

Other Professional Activities

- Memeber, Natural Sciences and Engineering Research Council of Canada (NSERC) External Advisory Committee for the Discovery Research Program Modernization, June 2022–

- Group Chair, Computer Science Evaluation Committee, and Member, Committee on Discovery Research, Natural Sciences and Engineering Research Council of Canada (NSERC), June 2019– April 2022.

- Treasurer, ACM Special Interest Group on Logic and Computation (SIGLOG), June 2016– May 2022.

- Member, Natural Sciences and Engineering Research Council of Canada (NSERC) Computer Science Evaluation Committee, 2010–2013.

- Co-founder, Devera Logic Inc., 2007–2018.

- Member of Scientific Advisory Board, Mobius (Mobility, Ubiquity, and Security) Project, European Commission Project, September 2005–January 2010.

- Secretary-Treasurer of the Association of Automated Reasoning, May 2004–May 2007.

- Consultant, Communications Security Establishment, Ottawa, Canada, December 2002– May 2003.

- Invited Participant, US Infosec Research Council's Malicious Code Science and Technology Study Group, to develop a national research agenda to address the malicious code problem, January 2000.

- Member, Industry Advisory Board for Monmouth University's Software Engineering Department. February 1998–December 1999.

- Coordinator, Bell Labs Technical Women's Group 1994–1996.
- Co-Coordinator, Bell Labs Seminar on Interactive Theorem Proving, 1991 – 1992.
- National Science Foundation (NSF) Review Panels, Washington, DC, USA. April 2012, April 2004, February 1999, December 1997, and April 1996.
- Granting Agencies Referee: Natural Sciences and Engineering Research Council of Canada (NSERC), National Science Foundation (NSF), European Research Council (ERC).
- Journal Referee: Communications of the ACM, Comptes Rendus de l'Académie des Sciences (France), Computer Journal, Computer Languages, Formal Methods in System Design, Information and Computation, Journal of the ACM, Journal of Automated Reasoning, Journal of Functional Programming, Journal of Logic and Computation, Journal of Logic Programming, Mathematical Structures in Computer Science, New Generation Computing, Theoretical Computer Science, ACM Transactions on Computational Logic, ACM Transactions on Programming Languages and Systems.
- Referee for Numerous Conferences and Workshops in theorem proving, automated deduction, computer-aided verification, logic programming, logical foundations of computer science, and programming languages.

Student and Post-doc Supervision

Post-doc Supervision

- Rebecca Zucchini, Ph.D. from Université Paris Saclay. September 2023–
- Abdorrahim Bahrami, Ph.D. from University of Ottawa. July 2020–August 2022.
- Amir Eaman, Ph.D. from University of Ottawa. January 2020–June 2022.
- Mohamed Yousri Mahmoud, Ph.D. from Concordia University. December 2015–September 2018.
- Michael Warren, Ph.D. from Carnegie Mellon University. Co-supervised with Pieter Hofstra and Philip Scott, September 2008–August 2009.
- Joachim de Lataillade, Ph.D. from Université Paris 7. Co-supervised with Pieter Hofstra and Philip Scott, September 2007–August 2008.
- Guillaume Dufay, Ph.D. from Université de Nice Sophia Antipolis. Co-supervised with Stan Matwin, June 2004–August 2005.
- Venanzio Capretta, Ph.D. from Katholieke Universiteit Nijmegen. Co-supervised with Philip Scott and Peter Selinger, November 2003–August 2006.
- Eun-Young Lee, Ph.D. from Princeton University. January–December 2004.
- Laurent Théry, Post-doc at Bell Labs. Ph.D. from Université Paris 7, France. September 1993–September 1994.

Ph.D. Student Supervision

- John Shortt, Ottawa-Carleton Institute for Computer Science, January 2023–
- Abdorrahim Bahrami, Ottawa-Carleton Institute for Computer Science, *Modeling and Verifying Dynamic Properties of Biological Neuronal Networks in Coq*, co-supervised with Elisabetta De Maria, University of Nice, July 2021.

- Amir Eaman, Ottawa-Carleton Institute for Computer Science, *TEpla: A Certified Type Enforcement Access-Control Policy Language*, November 2019.
- Polina Vinogradova, Ottawa-Carleton Institute for Computer Science, *Formalizing Abstract Computability: Turing Categories in Coq*, co-supervised with Philip Scott, June 2017.
- Bahman Sistany, Ottawa-Carleton Institute for Computer Science, *A Certified Core Policy Language*, April 2016.
- Alan Martin, Ottawa-Carleton Institute of Mathematics and Statistics, *Reasoning Using Higher-Order Abstract Syntax in a Higher-Order Logic Proof Environment: Improvements to Hybrid and a Case Study*, November 2010.
- Franck Binard, Ottawa-Carleton Institute for Computer Science, *Abstraction-Based Genetic Programming*, April 2009.

Master's Student Supervision

- John Short, Ottawa-Carleton Institute for Computer Science, *A System for Bounding the Execution Cost of WebAssembly Functions*, co-supervised with Anil Somayaji, January 2023.
- Yan Steimle, Ottawa-Carleton Institute for Computer Science, Master's project, *Formal Verification of Code Obfuscation: Soundness of the Control-Flow Flattening Transformation*, co-supervised with Philip Scott, December 2022.
- Weiyun Lu, Ottawa-Carleton Institute for Computer Science, *Formally Verified Code Obfuscation in the Coq Proof Assistant*, December 2019.
- Shobhit Bahl, Ottawa-Carleton Institute for Computer Science, Master's project on programming with higher-order logic to support formal proofs of programming language metatheory, May 2017.
- Chelsea Battell, Ottawa-Carleton Institute of Mathematics and Statistics, *The Logic of Hereditary Harrop Formulas as a Specification Logic for Hybrid*, September 2016.
- Dongting Zhang, Ottawa-Carleton Institute for Computer Science, Master's project on formal verification of imperative programs in Coq, December 2013.
- Ian Sharkey, Ottawa-Carleton Institute for Computer Science, *Probabilistic Proof-Carrying Code*, co-supervised with Philip Scott, March 2012.
- Michel St.-Martin, Ottawa-Carleton Institute of Mathematics and Statistics, *Analysis and Formal Verification of Security Policies*, December 2011.
- Margi Fumtiwala, Ottawa-Carleton Institute for Computer Science, Master's project on analysis of policy specification languages, December 2011.
- Riley August, Ottawa-Carleton Institute for Computer Science, *Applying Genetic Programming to Scripted Mobile Robotics*, December 2009.
- Zhiping Duan, Ottawa-Carleton Institute for Computer Science, *Proof Search Algorithms for Detecting Interactions in Telecommunication Features*, August 2003.
- Franck Binard, Ottawa-Carleton Institute for Computer Science, *Proving Properties of Programs Using Automatically Generated Models*, June 2002.
- Jamil Hreich, Ottawa-Carleton Institute for Computer Science, Master's project on temporal logic theorem proving and its application to the feature interaction problem, December 2001.

Undergraduate Student Supervision

- Nada Habli, Women Undergraduate Summer Research Award, Faculty of Engineering, Translating Higher-Order Specifications to Coq Libraries Supporting Hybrid Proofs, May–August 2012.

External Ph.D. Thesis Committee Member

- Michael J. Burrell, Western University, Canada. *Resource Bound Guarantees via Programming Languages*, June 2017.
- Omar Abahmane, Université d Québec en Outaouais, Canada. *Contrôle de flux d'information basé sur la granularité*, October 2015.
- Tarek Mhamdi, Concordia University, Canada. *Information-Theoretic Analysis using Theorem Proving*, December 2012.
- Andrei Popescu, University of Illinois at Urbana-Champaign, USA. *A Framework for the Specification and Analysis of Systems Featuring Variable Bindings and Concurrent Behavior*, September 2010.
- Perry R. James, Concordia University, Canada. *Enhancements to JML and its Extended Static Checking Technology*, July 2009.
- Shoham Ben-David, University of Waterloo, Canada. *Applications of Description Logic and Causality in Model Checking*, June 2009.
- Jian Xu, McMaster University, Canada. *Mei—a Module Sytem for Mechanized Mathematics Systems*, December 2007.
- Kedar Swadi, Princeton University, USA. *Typed Machine Language*, July 2003.
- Alberto Ciaffaglione, Institut National Polytechnique de Lorraine, France. *Raisonnement certifié sur les nombres réels et les objets en théorie des types co-inductifs*, May 2003.
- Delphine Terrasse, rapporteur, L'École Nationale des Ponts et Chaussées, Paris, France. *Vers un Environnement d'Aide au Développement de Preuves en Sémantique Naturelle*, October 1995.
- Chuck Liang, University of Pennsylvania. *Object-Level Substitution, Unification, and Generalization in Meta-Logic*, September 1995.
- Laurent Théry, examinateur, Université Paris 7, France. *Une Méthode Distribuée de Création d'Interfaces et ses Applications aux Démonstrateurs de Théorèmes*, February 1993.

External Master's Thesis Committee Member

- Jacob Errington, McGill University, *Mechanizing Metatheory Interactively*, August 2020.
- Renaud Germain, McGill University, *Implementation of a Dependently Typed Functional Programming Language*, December 2009.
- Jacques Le Normand, McGill University, *Generalized Algebraic Datatypes: A Different Approach*, March 2007.

Bell Labs Summer Project Supervision

- Abhik Roychoudhury, Bell Labs Summer Intern, Ph.D. Student from SUNY Stonybrook. June–August 1998.
- Hoa-Chi Wong, Bell Labs Summer Intern, Ph.D. Student from Carnegie Mellon University. June–August 1993.
- Jill Seaman, Bell Labs Summer Intern, Ph.D. Student from Pennsylvania State University. June–August 1992.
- 2 undergraduate students, Bell Labs Summer Program for Minorities and Women, summers 1993 (Courtney Smith) and 1998 (Tina Nolte).

Teaching

Graduate Courses

- CSI 5137 (COMP 5900) Software Foundations, Fall 2021, Fall 2018, Fall 2016, Fall 2015.
- CSI 5110 (COMP 5707) Principles of Formal Software Development, Fall 2016, Fall 2015, Fall 2014, Fall 2012, Fall 2011, Fall 2010, Fall 2009, Fall 2008, Fall 2007, Fall 2006, Fall 2005, Winter 2005, Fall 2002, Winter 2002, Winter 2001.

Undergraduate Courses

- CSI 4125 Theory of Programming Languages, Winter 2008, Winter 2006, Winter 2005.
- CSI 3120 Concepts of Programming Languages, Fall 2020, Fall 2019, Fall 2018.
- CSI 3520 Concepts des langages de programmation, Automne 2019, Automne 2018.
- CSI 3104 Introduction to Formal Languages, Winter 2020, Winter 2019, Winter 2017, Winter 2016, Winter 2015, Winter 2013, Winter 2012, Winter 2003.
- CSI 3504 Introduction aux langages formels, Hiver 2017, Hiver 2016, Hiver 2015, Hiver 2013, Hiver 2003, Hiver 2000.
- CSI 2120 Programming Paradigms, Winter 2011.
- CSI 2520 Paradigmes de programmation, Hiver 2012.
- SEG 2105 Introduction to Software Engineering, Winter 2010, Winter 2009, Fall 2007, Fall 2006.
- ITI 1120 Introduction to Computing I, Winter 2008.
- CSI 1100 Introduction to Computer Science I, Fall 2002, Fall 2001 (3 sections), Fall 2000 (2 sections).

Combined Undergraduate/Graduate Courses

- Foundations of AI Theory with Applications, Stevens Institute of Technology, Hoboken, NJ, USA, Spring 1999.

Research Funding

- Co-Investigator on "Vulnerability Detection in Source Code through Multimodal Reinforcement Learning," Mitacs Accelerator Grant, $150,000, September 2023–August 2026.

- Primary Supervisor on "Modelling and Verifying Dynamic Properties of Biological Neural Networks in Coq," Mitacs Globalink Research Award, $6,000, May–September 2019.

- Principal Investigator on "Modeling and Analysis of Access-Control Policies (SELinux and/or SMACK)," Mitacs Accelerator Grant, $30,000, March–November 2016.

- Principal Investigator on "A Higher-Order Abstract Syntax Approach to Reasoning about Programs and Programming Languages" NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants Program, $43,000 yearly for 9 years, April 2015–March 2024.

- Principal Investigator on "Risk-Based Adaptive Rules Engine for Fraud Detection in Mobile Commerce," NSERC (Natural Sciences and Engineering Research Council of Canada) Engage Grant, $25,000, May–October 2012.

- Co-Investigator on "Policy Definition and Analysis Software—Software Development and GUI," FedDev Ontario Applied Research and Commerialization Initiative, Co-Investigators: Stan Matwin (Co-Principle), Ed Strange (Co-Principal), Bernard Stepien, $50,000, May–August 2011.

- Co-Principal Investigator on "Access Management and Control Technology," OTTN (Ontario Technology Transfer Network) Proof of Principle Program, Co-Investigator: Stan Matwin, $35,000, January–March 2010.

- Principal Investigator on "Machine-Assisted Theorem Proving: Proof Techniques and Applications," NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants Program, $35,000 yearly for 6 years, April 2009–March 2015.

- Co-Investigator on "Correct Logic Inc. Market Readiness," (Ontario Centres of Excellence) Market Readiness Program, Co-Investigator: Stan Matwin (Principal), $38,000, July–September 2007.

- Co-Investigator on "Enterprise Solutions for Verification of Policy Compliance," CITO (Communications and Information Technology Ontario) Tech Readiness Program, Co-Investigator: Stan Matwin (Principal), $25,500, October 2005–January 2006.

- Co-Investigator on "Application-Centric Checkable Enablement of Privacy and Trust," NSERC (Natural Sciences and Engineering Research Council of Canada) Idea to Innovation (I2I) Grant, Co-Investigator: Stan Matwin (Principal), $62,500 yearly for 2 years, November 2004–March 2006.

- Principal Investigator on "Proving Safety and Privacy Properties of Software," NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants Program, $39,700 yearly for 5 years, April 2004–March 2009.

- Principal Investigator on "Software Correctness and Safety," CFI (Canada Foundation for Innovation) Infrastructure Operating Fund, $4,800 yearly for 5 years, April 2004–March 2009.

- Co-Investigator on "Contracts and Conflicts in Electronic Commerce," ORNEC (Ontario Research Network for Electronic Commerce), Co-Investigators: Stan Matwin (Principal), Gregory Kersten, Luigi Logrippo, $39,000, January 2004–January 2005.

- Co-Investigator on "Privacy-Oriented Data Mining," CITO (Communications and Information Technology Ontario) Tech Readiness Program, Co-Investigator: Stan Matwin (Principal), $25,000, January 2004–April 2004.

- Co-Investigator on "A Requirements-Driven Development of Distributed Applications," NSERC (Natural Sciences and Engineering Research Council of Canada) Strategic Project, Co-Investigators: Daniel Amyot, Gregor Bochmann (Principal), Luigi Logrippo, Robert Probert, Stéphane Somé, $180,590 yearly for 3 years, October 2002–September 2005.

- Principal Investigator on "Software Correctness and Safety," CFI (Canada Foundation for Innovation) New Opportunities Fund, $200,499 total over four years, January 2002–June 2005.

- Principal Investigator on "A Proof Development Environment for Proof-Carrying Code," NSERC (Natural Sciences and Engineering Research Council of Canada) Research Grants—Individual, $28,000 yearly for 4 years, April 2000–March 2004.

- Principal Investigator, CITO (Communications and Information Technology Ontario) Human Resources Development Fund, $10,000 for one term, January 2000–March 2000.

- Principal Investigator on "An Application of Theorem Proving to Proof-Carrying Code," University Research Fund, $10,000, January–December 2000.

- Principal Investigator on "An Application of Theorem Proving to Proof-Carrying Code," Faculty of Engineering Fund, $10,000, January – December 2000.

- Principal Investigator on "Lemma Support for Proof-Carrying Code," SITE Development Fund, $5,000, January–December 2000.

Academic Service Activities

- Associate Director for Computer Science, School of Electrical Engineering and Computer Science, July 2020–June 2021.

- Coordinator, Computer Science Fourth-Year Undergraduate Project, July 2007–June 2013, July 2014–June 2017, July 2018–June 2022.

- Computer Science Curriculum Committee, January–June 2000, January 2001–June 2003, July 2019–June 2022 (Committee Chair, July 2001–June 2003 and July 2020–June 2021).

- School Teaching Personnel Committee, School of Electrical Engineering and Computer Science, January–June 2003, July 2014–June 2017.

- School Appointments Committee, School of Electrical Engineering and Computer Science, July 2001–June 2002, January–June 2003, July 2014–June 2017.

- Search Committee, Department of Mathematics and Statistics Chair, Winter 2016, Fall 2006, Fall 2001.

- Faculty Teaching Personnel Committee, Faculty of Engineering, July 2010–June 2013.

- Ottawa-Carleton Institute for Computer Science (OCICS) Graduate Admissions Committee, January 2005–December 2006.

- Faculty Curriculum Committee, Faculty of Engineering, July 2001–June 2003.

- University of Ottawa Library Committee, July 2000–June 2003.

- Faculty Council, Faculty of Engineering, January–June 2001.

- Served on Ph.D. thesis committees for 8 Computer Science students.

- Served on Master's thesis committees for 14 Computer Science students.
- Supervised undergraduate projects for 12 Computer Science students.

Publications

Papers in Refereed Journals and Reviewed Book Chapters

- Amir Eaman and Amy Felty. A Certified Access Control Policy Language: TEpla. *Innovations in Systems and Software Engineering*, 16 pages, August 2023.

- Elisabetta De Maria, Joëlle Despeyroux, Amy Felty, Pietro Liò, Carlos Olarte, and Abdorrahim Bahrami. Computational Logic for Biomedicine and Neurosciences. In Cédric Lhoussaine and Élisabeth Remy, editors, *Symbolic Approaches to the Modeling and Analysis of Biological Systems*, pages 187–234. ISTE-Wiley, July 2023.

- Elisabetta De Maria, Joëlle Despeyroux, Amy Felty, Pietro Liò, Carlos Olarte, and Abdorrahim Bahrami. Logique calculatoire pour la biomédecine et les neurosciences. In Cédric Lhoussaine and Élisabeth Remy, editors, *Approches symboliques de la modélisation et de l'analyse des systèmes biologiques*, pages 201–253. ISTE-Wiley, July 2022. French version of previous entry.

- Elisabetta De Maria, Abdorrahim Bahrami, Thibaud L'Yvonnet, Amy Felty, Daniel Gaffé, Annie Ressouche, and Franck Grammont. On the Use of Formal Methods to Model and Verify Neuronal Archetypes. *Frontiers of Computer Science*, 16(3), Article number: 163404, 22 pages, June 2022.

- Amy Felty, Carlos Olarte, and Bruno Xavier. A Focused Linear Logical Framework and its Application to Metatheory of Object Logics. *Mathematical Structures in Computer Science*, 31(3):312–340, November 2021.

- Mohamed Yousri Mahmoud and Amy Felty. Formalization of Metatheory of the Quipper Quantum Programming Language in a Linear Logic. *Journal of Automated Reasoning*, 63:967–1002, June 2019.

- Amy Felty, Alberto Momigliano, and Brigitte Pientka. Benchmarks for Reasoning with Syntax Trees Containing Binders and Contexts of Assumptions. *Mathematical Structures in Computer Science*, Cambridge University Press, 28:1507–1540, 2018.

- Amy P. Felty, Alberto Momigliano, and Brigitte Pientka. The Next 700 Challenge Problems for Reasoning with Higher-Order Abstract Syntax Representations: Part 2—A Survey. *Journal of Automated Reasoning*, 55(4):307–372, 2015.

- Amy Felty and Alberto Momigliano. Hybrid: A Definitional Two Level Approach to Reasoning with Higher-Order Abstract Syntax. *Journal of Automated Reasoning*, 48(1):43–105, 2012.

- Amy P. Felty. Tutorial Examples of the Semantic Approach to Foundational Proof-Carrying Code. *Fundamenta Informaticae*, 7(4):303–330, 2007.

- Andrew W. Appel and Amy P. Felty. Polymorphic Lemmas and Definitions in λProlog and Twelf. *Theory and Practice of Logic Programming*, 4(1&2):1–39, January & March 2004.

- Andrew W. Appel and Amy P. Felty. Dependent Types Ensure Partial Correctness of Theorem Provers. *Journal of Functional Programming*, 14(1):3–19, January 2004.

- Amy P. Felty and Kedar S. Namjoshi. Feature Specification and Automated Conflict Detection. *ACM Transactions on Software Engineering and Methodology*, 12(1):3–27, January 2003.

- Amy P. Felty. The Calculus of Constructions as a Framework for Proof Search with Set Variable Instantiation. *Theoretical Computer Science*, 232(1–2):187–229, February 2000.

- Amy Felty and Frank Stomp. Cache Coherency in SCI: Specification and a Sketch of Correctness. *Formal Aspects of Computing*, 11(5):475–497, 1999.

- Amy Felty and Frank Stomp. Specification and Correctness of Cache Coherency in SCI. *Formal Aspects of Computing, Electronic Supplement*, 3:1–31, 1999.

- Amy Felty and Laurent Théry. Interactive Theorem Proving with Temporal Logic. *Journal of Symbolic Computation*, 23(4):367–397, April 1997.

- Amy Felty. Implementing Tactics and Tacticals in a Higher-Order Logic Programming Language. *Journal of Automated Reasoning*, 11(1):43–81, August 1993.

- Amy Felty. Encoding Dependent Types in an Intuitionistic Logic. In Gérard Huet and Gordon Plotkin, editors, *Logical Frameworks*, pages 215–251. Cambridge University Press, 1991.

Papers in Refereed Conference Proceedings

- Amir Eaman and Amy Felty. Formal Verification of a Certified Policy Language. In *Proceedings of the 14th International Conference on Verification and Evaluation of Computer and Communication Systems (VECoS)*, Springer LNCS 12519, pages 180–194, 2020.

- Bahman Sistany, Amy Felty, Weiyun Lu, and Philip Scott. Towards Formal Verification of Program Obfuscation. Workshop on Software Attacks and Defenses (SAD). In *Proceedings of the 2020 IEEE European Symposium on Security and Privacy Workshops (EUROS&PW)*, IEEE, pages 635–644, 2020.

- Bernard Stepien and Amy Felty. Resolving XACML Rule Conflicts Using Artificial Intelligence. In *Proceedings of the 3rd International Conference on Information Science and System (ICISS 2020)*, ACM, pages 121-127, 2020.

- Joëlle Despeyroux, Amy Felty, Pietro Liò, and Carlos Olarte. A Logical Framework for Modelling Breast Cancer Progression. In *Proceedings of the International Symposium on Molecular Logic and Computational Synthetic Biology (MLCSB 2018)*, Springer Nature, LNCS 11415, pages 121–141, 2019.

- Abdorrahim Bahrami, Elisabetta De Maria, and Amy Felty. Modelling and Verifying Dynamic Properties of Biological Neural Networks in Coq. In *Proceedings of the 9th International Conference on Computational Systems-Biology and Bioinformatics (CSBio)*, ACM, Article No. 12, pages 1–11, December 2018.

- Mohamed Yousri Mahmoud and Amy P. Felty. Formal Meta-level Analysis Framework for Quantum Programming Languages. In *Proceedings of the 12th Workshop on Logical and Semantic Frameworks with Applications (LSFA 2017)*, *Electronic Notes in Theoretical Computer Science*, Volume 338, pages 185–201, 2018.

- Polina Vinogradova, Amy P. Felty, and Philip Scott. Formalizing Abstract Computability: Turing Categories in Coq. In *Proceedings of the 12th Workshop on Logical and Semantic Frameworks with Applications (LSFA 2017)*, *Electronic Notes in Theoretical Computer Science*, Volume 338, pages 203–218, 2018.

- Bahman Sistany and Amy Felty. A Certified Core Policy Language. In *Proceedings of the 15th Annual International Conference on Privacy, Security, and Trust (PST)*, IEEE, pages 391–393, 2017.

- Amir Eaman, Bahman Sistany, and Amy Felty. Review of Existing Analysis Tools for SELinux Security Policies: Challenges and a Proposed Solution. In *E-Technologies: Embracing the Internet of Things, Proceedings of the 7th International MCETECH Conference*, Springer Lecture Notes in Business Information Processing 289, pages 116–135, May 2017.

- Bernard Stepien and Amy Felty. Using Expert Systems to Statically Detect "Dynamic" Conflicts in XACML. In *Proceedings of the Eleventh International Conference on Availability, Reliability and Security (ARES)*, IEEE Computer Society, August 2016.

- Chelsea Battell and Amy Felty. The Logic of Hereditary Harrop Formulas as a Specification Logic for Hybrid. In *Proceedings of the Eleventh International Workshop on Logical Frameworks and Meta-Languages: Theory and Practice (LFMTP)*, ACM, June 2016.

- Michel St-Martin and Amy P. Felty. A Verified Algorithm for Detecting Conflicts in XACML Access Control Rules. In *Proceedings of the Fifth ACM SIGPLAN Conference on Certified Programs and Proofs (CPP)*, ACM, pp. 166–175, January 2016.

- Amy Felty, Alberto Momigliano, and Brigitte Pientka. An Open Challenge Problem Repository for Systems Supporting Binders. In *Proceedings of the Tenth International Workshop on Logical Frameworks and Meta-Languages: Theory and Practice (LFMTP)*, Electronic Proceedings in Theoretical Computer Science 185, pp. 18–32, August 2015.

- Elisabetta de Maria, Joëlle Despeyroux, and Amy P. Felty. A Logical Framework for Systems Biology. In *Proceedings of the First International Conference on Formal Methods in Macro-Biology (FMMB)*, Springer Lecture Notes in Computer Science, pp. 136–155, September 2014.

- Bernard Stepien, Amy Felty, and Stan Matwin. Challenges of Composing XACML Policies. In *Proceeding of the Ninth International Conference on Availability, Reliability and Security (ARES)*, IEEE Computer Society, pp. 234–241, September 2014.

- Bernard Stepien, Amy Felty, and Stan Matwin. A Non-Technical XACML Target Editor for Dynamic Access Control Systems. In *Proceeding of the 2014 International Conference on Collaboration Technologies and Systems (CTS)*, IEEE Computer Society, pp. 150–157, May 2014.

- Nada Habli and Amy P. Felty. Translating Higher-Order Specifications to Coq Libraries Supporting Hybrid Proofs. In *Proceedings of the Third International Workshop on Proof Exchange for Theorem Proving (PxTP)*, EasyChair Proceedings in Computing (EPiC), pp. 67–76, June 2013.

- Bernard Stepien, Amy Felty, and Stan Matwin. An Algorithm for Compression of XACML Access Control Policy Sets by Recursive Subsumption. In *Proceedings of the Seventh International Conference on Availability, Reliability, and Security (ARES)*, pages 161–167. IEEE Computer Society, August 2012.

- Alan J. Martin and Amy P. Felty. An Improved Implementation and Abstract Interface for Hybrid. To appear in *Proceedings of the Sixth International Workshop on Logical Frameworks and Meta-Languages: Theory and Practice (LFMTP)*, in *Electronic Proceedings in Computer Science 71*, pages 76–90, August 2011.

- Jiangong Weng and Amy Felty. An Implementation of a Verification Condition Generator for Foundational Proof-Carrying Code. In *Proceedings of the Ninth Annual Conference on Privacy, Security, and Trust (PST)*, pages 238–245, IEEE, July 2011.

- Bernard Stepien, Stan Matwin, and Amy Felty. Advantages of a Non-Technical XACML Notation in Role-Based Models. In *Proceedings of the Ninth Annual Conference on Privacy, Security, and Trust (PST)*, pages 193–200, IEEE, July 2011.

- Amy Felty and Brigitte Pientka. Reasoning with Higher-Order Abstract Syntax and Contexts: A Comparison. In *Proceedings of the First International Conference on Interactive Theorem Proving (ITP)*, pages 227–242. Springer Lecture Notes in Computer Science, July 2010.

- Bernard Stepien, Stan Matwin, and Amy Felty. Strategies for Reducing Risks of Inconsistencies in Access Control Policies. In *Proceedings of the Fifth International Conference on Availability, Reliability, and Security (ARES)*, pages 140–147. IEEE Computer Society, February 2010.

- Venanzio Capretta and Amy P. Felty. Higher-Order Abstract Syntax in Type Theory. In *Logic Colloquium '06*, ASL Lecture Notes in Logic, 32, pages 65–90. Cambridge University Press, October 2009.

- Amy Felty and Alberto Momigliano. Reasoning with Hypothetical Judgments and Open Terms in Hybrid. In *Proceedings of the Eleventh International ACM SIGPLAN Symposium on Principles and Practice of Declarative Programming (PPDP)*, pages 83–92. ACM Press, September 2009.

- Bernard Stepien, Amy Felty, and Stan Matwin. A Non-technical User-Oriented Display Notation for XACML Conditions. In *E-Technologies: Innovation in an Open World, Proceedings of the Fourth International MCETECH Conference*, pages 53–64. Springer Lecture Notes in Business Information Processing, May 2009.

- Franck Binard and Amy Felty. Genetic Programming with Polymorphic Types and Higher-Order Functions. In *Proceedings of the Tenth Genetic and Evolutionary Computation Conference (GECCO)*, pages 1187–1194. ACM Press, July 2008.

- Alberto Momigliano, Alan J. Martin, and Amy P. Felty. Two-level Hybrid: A System for Reasoning Using Higher-Order Abstract Syntax. In *Proceedings of the Second International Workshop on Logical Frameworks and Meta-Languages: Theory and Practice (LFMTP 2007)*, in *Electronic Notes in Theoretical Computer Science*, 196:85–93, January 2008.

- Venanzio Capretta, Bernard Stepien, Amy Felty, and Stan Matwin. Formal Correctness of Conflict Detection for Firewalls. In *Proceedings of the ACM Workshop on Formal Methods in Security Engineering (FMSE)*, pages 22–30, November 2007.

- Venanzio Capretta and Amy Felty. Combining de Bruijn Indices and Higher-Order Abstract Syntax in Coq. In *Types for Proofs and Programs, International Workshop, TYPES 2006, Revised Selected Papers*, pages 63–77. Springer Lecture Notes in Computer Science, 2007.

- Guillaume Dufay, Amy Felty, and Stan Matwin. Privacy-Sensitive Information Flow with JML. In *Proceedings of the Twentieth International Conference on Automated Deduction (CADE)*, pages 116–130. Springer Lecture Notes in Computer Science, July 2005.

- Stan Matwin, Amy Felty, István Hernádvölgyi, and Venanzio Capretta". Privacy in Data Mining Using Formal Methods. In *Proceedings of the Seventh International Conference on*

Typed Lambda Calculi and Applications (TLCA), pages 278–292. Springer Lecture Notes in Computer Science, April 2005.

- Amy Felty and Stan Matwin. Privacy-Oriented Data Mining by Proof Checking, In *Proceedings of the Sixth European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD)*, pages 138–149. Springer Lecture Notes in Computer Science, August 2002.

- Amy P. Felty. Two-Level Meta-Reasoning in Coq. In *Proceedings of the Fifteenth International Conference on Theorem Proving in Higher Order Logics (TPHOLs)*, pages 198–213. Springer Lecture Notes in Computer Science, August 2002.

- Amy P. Felty and Kedar S. Namjoshi. Feature Specification and Automatic Conflict Detection. In M. Calder and E. Magill, editors, *Feature Interactions in Telecommunications and Software Systems VI*, pages 179–192. IOS Press, 2000.

- Andrew W. Appel and Amy P. Felty. A Semantic Model of Types and Machine Instructions for Proof-Carrying Code. In *Proceedings of the Twenty-Seventh Annual ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL)*, pages 243–253, January 2000.

- Andrew W. Appel and Amy P. Felty. Lightweight Lemmas in λProlog. In *Proceedings of the 1999 International Conference on Logic Programming (ICLP)*, pages 411–425, November 1999.

- Amy P. Felty, Douglas J. Howe, and Abhik Roychoudhury. Formal Metatheory using Implicit Syntax, and an Application to Data Abstraction for Asynchronous Systems. In *Proceedings of the Sixteenth International Conference on Automated Deduction (CADE)*, pages 237–251. Springer Lecture Notes in Computer Science, July 1999.

- Amy P. Felty, Douglas J. Howe, and Frank A. Stomp. Protocol Verification in Nuprl. In *Proceedings of the Tenth International Conference on Computer Aided Verification (CAV)*, pages 428–439. Springer Lecture Notes in Computer Science, June 1998.

- Amy P. Felty and Douglas J. Howe. Hybrid Interactive Theorem Proving using Nuprl and HOL. In *Proceedings of the Fourteenth International Conference on Automated Deduction (CADE)*, pages 351–365. Springer Lecture Notes in Computer Science, July 1997.

- Amy Felty. Proof Search with Set Variable Instantiation in the Calculus of Constructions. In *Proceedings of the Thirteenth International Conference on Automated Deduction (CADE)*, pages 658–672. Springer Lecture Notes in Computer Science, July 1996.

- Amy Felty and Frank Stomp. A Correctness Proof of a Cache Coherence Protocol. In *Proceedings of the Eleventh Annual Conference on Computer Assurance (COMPASS)*, pages 128–141, June 1996.

- Ramesh Bharadwaj, Amy Felty, and Frank Stomp. Formalizing Inductive Proofs of Network Algorithms. In *Algorithms, Conurrency, and Knowledge: Proceedings of the 1995 Asian Computing Science Conference (ACSC)*. Springer Lecture Notes in Computer Science, December 1995.

- Joëlle Despeyroux, Amy Felty, and André Hirschowitz. Higher-Order Abstract Syntax in Coq. In *Proceedings of the Second International Conference on Typed Lambda Calculi and Applications (TLCA)*, pages 124–138. Springer Lecture Notes in Computer Science, April 1995.

- Amy Felty and Douglas Howe. Generalization and Reuse of Tactic Proofs. In *Proceedings of the Fifth International Conference on Logic Programming and Automated Reasoning (LPAR)*, pages 1–15. Springer Lecture Notes in Computer Science, July 1994.

- Amy Felty and Douglas Howe. Tactic Theorem Proving with Refinement-Tree Proofs and Metavariables. In *Proceedings of the Twelfth International Conference on Automated Deduction (CADE)*, pages 605–619. Springer Lecture Notes in Computer Science, June 1994.

- Amy Felty. Encoding the Calculus of Constructions in a Higher-Order Logic. In *Proceedings of the Eighth Annual IEEE Symposium on Logic in Computer Science (LICS)*, pages 233–244, June 1993.

- Amy Felty. A Logic Programming Approach to Implementing Higher-Order Term Rewriting. In *Proceedings of the Second International Workshop on Extensions of Logic Programming (ELP)*, pages 135–161. Springer Lecture Notes in Computer Science, 1992.

- Amy Felty. A Logic Program for Transforming Sequent Proofs to Natural Deduction Proofs. In *Proceedings of the First International Workshop on Extensions of Logic Programming (ELP)*, pages 157–178. Springer Lecture Notes in Computer Science, 1991.

- Amy Felty and Dale Miller. Encoding a Dependent-Type λ-Calculus in a Logic Programming Language. In *Proceedings of the Tenth International Conference on Automated Deduction (CADE)*, pages 221–235. Springer Lecture Notes in Computer Science, July 1990.

- Amy Felty and Greg Hager. Explaining Modal Logic Proofs. In *Proceedings of the 1988 IEEE International Conference on Systems, Man, and Cybernetics*, pages 177–180, August 1988.

- Amy Felty and Dale Miller. Specifying Theorem Provers in a Higher-Order Logic Programming Language. In *Proceedings of the Ninth International Conference on Automated Deduction (CADE)*, pages 61–80. Springer Lecture Notes in Computer Science, May 1988.

- Amy Felty, Elsa Gunter, John Hannan, Dale Miller, Gopalan Nadathur, and Andre Scedrov. Lambda Prolog: An Extended Logic Programming Language. In *Proceedings of the Ninth International Conference on Automated Deduction (CADE)*, pages 754–755. Springer Lecture Notes in Computer Science, May 1988.

- Dale Miller and Amy Felty. An Integration of Resolution and Natural Deduction Theorem Proving. In *Proceedings of the Fifth National Conference on Artificial Intelligence (AAAI)*, pages 198–202. Morgan Kaufmann, August 1986.

Invited Contributions

- Amy P. Felty. A Tutorial Example of the Semantic Approach to Foundational Proof-Carrying Code. In *Proceedings of the Sixteenth International Conference on Rewriting Techniques and Applications (RTA)*, pages 394–406. Springer Lecture Notes in Computer Science, April 2005.

Volumes Edited

- Amy Felty and Giselle Reis, editors. Preface to Special Issue: LSFA 2019 and 2020. *Mathematical Structures in Computer Science*, 32(9):1117–1118, October 2022.

- Amy Felty, editor. *Proceedings of the 7th International Conference on Formal Structures for Computation and Deduction (FSCD)*, LIPICS Vol. 228, August 2022.

- Amy Felty and João Marcos, editors. *Proceedings of the 14th International Workshop on Logical and Semantic Frameworks with Applications (LSFA 2019)*, Electronic Notes in Theoretical Computer Science, Volume 348, March 2020.

- David Baelde, Amy Felty, Gopalan Nadathur, and Alexis Saurin, editors. Editorial Preface: A Special Issue on Structural Proof Theory, Automated Reasoning and Computation in Celebration of Dale Miller's 60th Birthday. *Mathematical Structures in Computer Science*, 29(8):1007–08, September 2019.

- June Andronick and Amy Felty, editors. *Proceedings of the 7th ACM SIGPLAN International Conference on Certified Programs and Proofs*, ACM, January 2018.

- Amy Felty and Aart Middeldorp. Preface, Selected Extended Papers of CADE 2015. *Journal of Automated Reasoning*, 58(3):311–312, March 2017.

- Amy P. Felty and Aart Middeldorp, editors. *Proceedings of the Twenty-Fifth International Conference on Automated Deduction (CADE)*, Springer Lecture Notes in Computer Science, August 2015.

- Amy Felty and Brigitte Pientka, editors. *Proceedings of the Ninth International Workshop on Logical Frameworks and Metalanguages: Theory and Practice (LFMTP)*, ACM International Conference Proceeding Series, July 2014.

- Lennart Beringer and Amy Felty, editors. *Proceedings of the Third International Conferene on Interactive Theorem Proving (ITP)*. Springer Lecture Notes in Computer Science, August 2012.

- James Cheney and Amy Felty, editors. *Proceedings of the Fourth International Workshop on Logical Frameworks and Metalanguages: Theory and Practice (LFMTP)*. ACM International Conference Proceeding Series, August 2009.

- Amy Felty, editor. *Proceedings of the Seventh ACM SIGPLAN Symposium on Principles and Practice of Declarative Programming (PPDP)*. ACM Press, July 2005.

- Amy Felty. Preface, Special Issue of *Journal of Automated Reasoning* on Proof-Carrying Code and Other Applications to Software Safety and Reliability, 31(1):3–4, 2003.

- David Basin and Amy Felty. Current Trends in Logical Frameworks and Metalanguages. *Journal of Automated Reasoning*, 27(1):1–2, July 2001. Special Issue Introduction.

- Elsa L. Gunter and Amy Felty, editors. *Proceedings of the Tenth International Conference on Theorem Proving in Higher Order Logics (TPHOLs)*. Springer Lecture Notes in Computer Science, August 1997.

Papers in Refereed Workshop Proceedings

- Michel St-Martin and Amy P. Felty. A Verified Algorithm for Detecting Conflicts in XACML Access Control Rules. In *Workshop on Automated Reasoning in Security and Software Verification (ARSEC)*, 8 pages, June 2013.

- Franck Binard and Amy Felty, An Abstraction-Based Genetic Programming System. In *Genetic and Evolutionary Computation Conference: Late Breaking Papers*, July 2007.

- Amy Felty. Temporal Logic Theorem Proving and its Application to the Feature Interaction Problem. In Enrico Giunchiglia and Fabio Massacci, editors, *Issues in the Design*

and Experimental Evaluation of Systems for Modal and Temporal Logics, pages 19–28, University of Siena, Technical Report DII 14/01, June 2001.

- Amy Felty. Defining Object-Level Parsers in λProlog. In Dale Miller, editor, *Proceedings of the Workshop on the λProlog Programming Language*, University of Pennsylvania, Technical Report MS-CIS-92-86, November 1992.

- Amy Felty. Higher-Order Conditional Rewriting in the L_λ Logic Programming Language. In Evelina Lamma and Paola Mello, editors, *Third International Workshop on Extensions to Logic Programming: Preprints of the Proceedings*, February 1992.

- Amy Felty and Dale Miller. A Meta Language for Type Checking and Inference. Presented at the 1989 Workshop on Programming Logic, Bålstad, Sweden, May 1989.

Informal Proceedings Edited

- Adriana Compagnoni and Amy Felty, editors, Proceedings of PCC 2006: International Workshop on Proof-Carrying Code, 17 pages, 2006.

- David Basin and Amy Felty, editors, Proceedings of the Workshop on Logical Frameworks and Meta-languages, 115 pages, 1999.

Other Papers

- Amy Felty. Reasoning with Structured Contexts of Assumptions. Abstract of invited workshop presentation. In *Dagstuhl Seminar 23471: The Next Generation of Deduction Systems: from Composition to Compositionality*, Dagstuhl Report, November 2023.

- John Shortt, Anil Somayaji, and Amy Felty. Static Execution Costs of WebAssembly Functions. Abstract of ECOOP workshop talk, Workshop on Program Analysis for WebAssembly (PAW), June 2022.

- Amy Felty. Comparing Systems for Reasoning with Higher-Order Higher-Order Abstract Syntax Representation. Abstract of invited workshop presentation. In *Dagstuhl Seminar 16421: Universality of Proofs*, Dagstuhl Reports 6(10):83, October 2016.

- Alberto Momigliano and Amy Felty, Breakout Session on Benchmarks. Abstract of breakout meeting, in *Dagstuhl Seminar 16421: Universality of Proofs*, Dagstuhl Reports 6(10):96–97, October 2016.

- Amy P. Felty, Alberto Momigliano, and Brigitte Pientka. The Next 700 Challenge Problems for Reasoning with Higher-Order Abstract Syntax Representations: Part 1—A Common Infrastructure for Benchmarks, CoRR, arXiv:1503.06095, 42 pages, March 2015.

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