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CURRICULUM VITAE

Personal data

Full name: Linh Anh NGUYEN
Date of birth: November 12, 1973
Place of birth: Hai Duong, Vietnam
Citizenship: Vietnamese
Present position: assistant professor
Institute of Informatics, University of Warsaw
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Education – scientific degrees

M.Sc. 1997, Ph.D. 2000, Dr.Sc. (Polish: doktor habilitowany) 2009,
all in Computer Science and from the University of Warsaw.

Employments

since 2002: assistant professor, Institute of Informatics, University of Warsaw
2000 – 2002: assistant, Institute of Informatics, University of Warsaw
1997 – 2001: developer/programmer, Rodan System S.A.

Scientific stays abroad

Australia, National ICT Australia (NICTA), 11/2003-12/2003

Research grants

- “A theory of logic programming in modal and description logics”, October 2007 – October 2009, MNiSW (Polish Ministry of Science and Higher Education) grant N N206 3982 33 (grant holder).
- „Approximate multiagent systems”, May 2008 – May 2011, MNiSW (Polish Ministry of Science and Higher Education) grant N N206 399334.

Awards

- Team Award of the Rector of Warsaw University for scientific achievements, 2010.

Professional services

- A co-chair of the Program Committees of SoICT'2010 and SoICT'2011.
- A member of the Technical Committee on Computational Collective Intelligence of the Systems, Man, and Cybernetics Society.

Publications

Journal papers

1. R. Goré and L.A. Nguyen. ExpTime Tableaux for ALC Using Sound Global Caching. To appear in *J. Automated Reasoning*.
2. L.A. Nguyen and A. Szałas. Paraconsistent Reasoning for Semantic Web Agents. To appear in *Transactions on Computational Collective Intelligence*.
3. B. Dunin-Kęplisz, L.A. Nguyen and A. Szałas. Converse-PDL with Regular Inclusion Axioms: A Framework for MAS Logics. *J. Applied Non-Classical Logics*, 21(1), 2011, 61-91.
4. L.A. Nguyen and A. Szałas. ExpTime Tableau Decision Procedures for Regular Grammar Logics with Converse. *Studia Logica*, 98(3), 2011, 387-428.
5. L.A. Nguyen. Horn Knowledge Bases in Regular Description Logics with PTIME Data Complexity. *Fundamenta Informaticae*, 104(4), 2010, 349-384.
6. L.A. Nguyen and A. Szałas. Checking Consistency of an ABox w.r.t. Global Assumptions in PDL. *Fundamenta Informaticae*, 102(1), 2010, 97-113.
7. B. Dunin-Kęplisz, L.A. Nguyen and A. Szałas. A Framework for Graded Beliefs, Goals and Intentions. *Fundamenta Informaticae*, 100, 2010, 53-76.
8. L.A. Nguyen and A. Szałas. Tableaux with Global Caching for Checking Satisfiability of a Knowledge Base in the Description Logic SH. *Transactions on Computational Collective Intelligence*, LNCS 6220(1), 2010, 21-38.
9. B. Dunin-Kęplisz, L.A. Nguyen and A. Szałas. A Layered Rule-Based Architecture for Approximate Knowledge Fusion. *Computer Science and Information Systems*, 7(3), 2010, 617-642.
10. B. Dunin-Kęplisz, L.A. Nguyen and A. Szałas. Tractable Approximate Knowledge Fusion Using the Horn Fragment of Serial Propositional Dynamic Logic. *Int. J. Approx. Reasoning* 51(3), pp. 346-362, 2010.
11. L.A. Nguyen. Modal logic programming revisited. *Journal of Applied Non-Classical Logics*, 19(2), 2009, 167-181.
12. R. Goré and L.A. Nguyen. Clausal Tableaux for Multimodal Logics of Belief. *Fundamenta Informaticae*, 94(1), 2009, 21-40.
13. L.A. Nguyen. An Efficient Tableau Prover using Global Caching for the Description Logic ALC. *Fundamenta Informaticae*, 93(1-3), 2009, 273-288.
14. L.A. Nguyen. Constructing Finite Least Kripke Models for Positive Logic Programs in Serial Regular Grammar Logics. *Logic Journal of the IGPL*, 2008 16:175-193.
15. L.A. Nguyen. Foundations of Modal Deductive Databases. *Fundamenta Informaticae*, 79(1-2), 2007, 85-135.
16. L.A. Nguyen. Multimodal Logic Programming. *Theoretical Computer Science*, 360 (2006), 247-288.
17. L.A. Nguyen. Negative Ordered Hyper-Resolution as a Proof Procedure for Disjunctive Logic Programming. *Fundamenta Informaticae*, 70(4), 2006, 351-366.

18. L.A. Nguyen and R. Goré. Completeness of Hyper-Resolution via the Semantics of Disjunctive Logic Programs. *Information Processing Letters*, 95(2), 2005, 363-369.
19. L.A. Nguyen. A Fixpoint Semantics and an SLD-Resolution Calculus for Modal Logic Programs. *Fundamenta Informaticae*, 55(1), 2003, 63-100.
20. L.A. Nguyen. Analytic Tableau Systems and Interpolation for the Modal Logics KB, KDB, K5, KD5. *Studia Logica*, 69(1), 2001, 41-57.
21. L.A. Nguyen. The Modal Query Language MDataLog. *Fundamenta Informaticae*, 46(4), 2001, 315-342.
22. L.A. Nguyen. Constructing the Least Models for Positive Modal Logic Programs. *Fundamenta Informaticae*, 42(1) 2000, 29-60.

Conference papers

23. S.T. Cao, L.A. Nguyen and A. Szałas. WORL: a Web Ontology Rule Language. In *Proceedings of the 3rd International Conference on Knowledge and Systems Engineering (KSE 2011)*, 2011.
24. L.A. Nguyen. A Cut-Free ExpTime Tableau Decision Procedure for the Description Logic SHI. In *Proceedings of the 3rd International Conference on Computational Collective Intelligence - Technologies and Applications (ICCCI 2011)*, LNAI 6922, pages 572-581, Springer-Verlag, 2011.
25. S.T. Cao, L.A. Nguyen and A. Szałas. On the Web Ontology Rule Language OWL 2 RL. In *Proceedings of the 3rd International Conference on Computational Collective Intelligence - Technologies and Applications (ICCCI 2011)*, LNAI 6922, pages 254-264, Springer-Verlag, 2011.
26. L.A. Nguyen. Cut-Free ExpTime Tableaux for Checking Satisfiability of a Knowledge Base in the Description Logic ALCI. In *Proceedings of the 19th International Symposium on Methodologies for Intelligent Systems (ISMIS 2011)*, LNAI 6804, pages 465-475, Springer, 2011.
27. L.A. Nguyen. Paraconsistent and Approximate Semantics for the OWL 2 Web Ontology Language. In *Proceedings of the 7th International Conference on Rough Sets and Current Trends in Computing (RSCTC 2010)*, LNAI 6086, pages 710-720, Springer, 2010.
28. L.A. Nguyen and A. Szałas. Three-Valued Paraconsistent Reasoning for Semantic Web Agents. In *Proceedings of the 4th International KES Symposium on Agents and Multi-Agent Systems*, LNAI 6070, pages 152-162, Springer, 2010.
29. L.A. Nguyen and A. Szałas. An Optimal Tableau Decision Procedure for Converse-PDL. In N.-T. Nguyen et al. (Eds), *Proceedings of the 1st International Conference on Knowledge and Systems Engineering (KSE 2009)*, pages 207-214, IEEE Computer Society, 2009.
30. B. Dunin-Kępicz, L.A. Nguyen, and A. Szałas. Fusing Approximate Knowledge from Distributed Sources. In *Proceedings of the 3rd International Symposium on Intelligent Distributed Computing (IDC 2009)*, Studies in Computational Intelligence 237, pages 75-86, Springer, 2009.
31. L.A. Nguyen and A. Szałas. ExpTime Tableaux for Checking Satisfiability of a Knowledge Base in the Description Logic ALC. In N.-T. Nguyen et al. (Eds), *Proceedings of the 1st International Conference on Computational Collective Intelligence - Semantic Web, Social Networks & Multiagent Systems (ICCCI 2009)*, LNCS 5796, pages 473-488, Springer, 2009.
32. L.A. Nguyen and A. Szałas. A Tableau Calculus for Regular Grammar Logics with Converse. In R.A. Schmidt (Ed.), *Proceedings of the 22nd International Conference on Automated Deduction (CADE-22)*, LNAI 5663, pages 421-436, Springer, 2009.

33. R. Goré and L.A. Nguyen. Analytic Cut-free Tableaux for Regular Modal Logics of Agent Beliefs. In F. Sadri and K. Saton (Eds.), *Proceedings of CLIMA-VIII on Computational Logic in Multi-Agent Systems*, LNAI 5056, pages 268-287, Springer, 2008.
34. R. Goré and L.A. Nguyen. EXPTIME Tableaux with Global Caching for Description Logics with Transitive Roles, Inverse Roles and Role Hierarchies. In N. Olivetti (Ed.), *Proceedings of the International Conference TABLEAUX'2007 on Automated Reasoning with Analytic Tableaux and Related Methods*, LNAI 4548, pages 133-148, Springer, 2007.
35. L.A. Nguyen. On the Deterministic Horn Fragment of Test-free PDL. In I. Hodkinson and Y. Venema, editors, *Advances in Modal Logic - Volume 6*, pages 373-392 King's College Publications, 2006.
36. L.A. Nguyen. A Bottom-up Method for the Deterministic Horn Fragment of the Description Logic ALC. In M. Fisher et al. (Eds.), *Proceedings of the 10th European Conference on Logics in Artificial Intelligence (JELIA 2006)*, LNAI 4160, pages 346-358, Springer, 2006.
37. L.A. Nguyen. The Data Complexity of MDatalog in Basic Modal Logics. In R. Kralovic and P. Urzyczyn, editors, *Proceedings of the 31st International Symposium on Mathematical Foundations of Computer Science (MFCS 2006)*, LNCS 4162, pages 729-740, Springer, 2006.
38. L.A. Nguyen. Reasoning about Epistemic States of Agents by Modal Logic Programming. In F. Toni and P. Torroni (Eds.), *Proceedings of the 6th International Workshop CLIMA on Computational Logic in Multi-Agent Systems*, LNAI 3900, pages 37-56, Springer, 2006.
39. L.A. Nguyen. An SLD-Resolution Calculus for Basic Serial Multimodal Logics. In D.V. Hung and M. Wirsing, editors, *Proceedings of the International Colloquium ICTAC'2005 on Theoretical Aspects of Computing*, LNCS 3722, pages 151-165, Springer, 2005.
40. R. Goré and L.A. Nguyen. A Tableau System with Automaton-Labelled Formulae for Regular Grammar Logics. In B. Beckert, editor, *Proceedings of the International Conference TABLEAUX'2005 on Automated Reasoning with Analytic Tableaux and Related Methods*, LNAI 3702, pages 138-152, Springer, 2005.
41. L.A. Nguyen. On Modal Deductive Databases. In J. Eder, H.-M. Haav, A. Kalja, and J. Penjam, editors, *Proceedings of the 9th East-European Conference on Advances in Databases and Information Systems (ADBIS 2005)*, LNCS 3631, pages 43-57, Springer, 2005.
42. L.A. Nguyen. On the Complexity of Fragments of Modal Logics. In R. Schmidt, I. Pratt-Hartmann, M. Reynolds, H. Wansing, editors, *Advances in Modal Logic - Volume 5*, pages 249-268, King's College Publications, 2005.
43. L.A. Nguyen. Negative Hyper-Resolution as Procedural Semantics of Disjunctive Logic Programs. In J.J. Alferes and J.A. Leite, editors, *Proceedings of the 9th European Conference on Logics in Artificial Intelligence (JELIA 2004)*, LNCS 3229, pages 565-577, Springer, 2004.
44. L.A. Nguyen. The Modal Logic Programming System MProlog. In J.J. Alferes and J.A. Leite, editors, *Proceedings of the 9th European Conference on Logics in Artificial Intelligence (JELIA 2004)*, LNCS 3229, pages 266-278, Springer, 2004.
45. L.A. Nguyen. Analytic Tableau Systems for Propositional Bimodal Logics of Knowledge and Belief. In U. Egly and C.G. Fermuller (eds.), *Proceedings of the International Conference TABLEAUX'2002 on Automated Reasoning with Analytic Tableaux and Related Methods*, LNAI 2381, pp. 206-220, Springer, 2002.
46. L.A. Nguyen. Sequent-Like Tableau Systems with the Analytic Superformula Property for the Modal Logics KB, KDB, K5, KD5. In R. Dyckhoff, editor, *Proceedings of the International Conference TABLEAUX'2000 on Automated Reasoning with Analytic Tableaux and Related*

Methods, LNAI 1847, 341-351, Springer, 2000.

47. L.A. Nguyen. A New Space Bound for the Modal Logics K4, KD4, and S4. In M. Kutylowski, L. Pacholski, T. Wierzbicki, editors, *Proceedings of the 24th International Symposium on Mathematical Foundations of Computer Science (MFCS 1999)*, LNCS 1672, 321-331, Springer, 1999.

Chapters in books

48. L.A. Nguyen and A. Szalas. Logic-based Roughification. To appear in *Intelligent Systems Reference Library*, Springer.
49. L.A. Nguyen and H.S. Nguyen. On Designing the SONCA System. To appear in *Studies in Computational Intelligence*, Springer-Verlag.
50. E. Madalińska-Bugaj and L.A. Nguyen. Generalizing the QSQR Evaluation Method for Horn Knowledge Bases. In N.T. Nguyen and R. Katarzyniak (Eds.), *New Challenges in Applied Intelligence Technologies*, Studies in Computational Intelligence 134, page 145-154, Springer, 2008.

Workshop papers and posters

51. A.R. Divroodi and L.A. Nguyen. On Bisimulations for Description Logics. In M. Szczuka, L. Czaja, A. Skowron and M. Kacprzak, editors, *Proceedings of the 20th Concurrency, Specification and Programming (CS&P) Workshop*, pages 99-110, 2011.
52. B. Dunin-Kęplicz, L.A. Nguyen and A. Szalas. Graded Beliefs, Goals and Intentions. *3rd Workshop on Logical Aspects of Multi-Agent Systems*, AAAI, 2010.
53. L.A. Nguyen. Extending the Description Horn Logic DHL. In L. Czaja and M. Szczuka, editors, *Proceedings of the 18th Concurrency, Specification and Programming (CS&P) Workshop*, pages 419-430, 2009.
54. L.A. Nguyen and A. Szalas. Checking Consistency of an ABox w.r.t. Global Assumptions in PDL. In L. Czaja and M. Szczuka, editors, *Proceedings of the 18th Concurrency, Specification and Programming (CS&P) Workshop*, pages 431-442, 2009.
55. R. Goré and L.A. Nguyen. Sound Global Caching for Abstract Modal Tableaux. In Hans-Dieter Burkhard et al. (Eds.), *Proceedings of the 17th Concurrency, Specification and Programming (CS&P) Workshop*, pages 157-167, 2008.
56. L.A. Nguyen. An Efficient Tableau Prover using Global Caching for the Description Logic ALC. In Hans-Dieter Burkhard et al. (Eds.), *Proceedings of the 17th Concurrency, Specification and Programming (CS&P) Workshop*, pages 362-373, 2008.
57. R. Goré and L.A. Nguyen. EXPTIME Tableaux for ALC Using Sound Global Caching. In D. Calvanese et al. (Eds.), *Proceedings of Description Logics 2007*, pages 299-306, 2007.
58. L.A. Nguyen. Weakening Horn Knowledge Bases in Regular Description Logics to Have PTIME Data Complexity. In S. Ghilardi, U. Sattler, V. Sofronie-Stokkermans, and A. Tiwari, editors, *Proceedings of Automated Deduction: Decidability, Complexity, Tractability ADDCT'07*, pages 32-47, 2007.
59. L.A. Nguyen. Approximating Horn Knowledge Bases in Regular Description Logics to Have PTIME Data Complexity. In V. Dahl and I. Niemela (Eds.), *Proceedings of the 23rd International Conference on Logic Programming (ICLP 2007)*, LNCS 4670, pages 438-439, Springer, 2007.
60. L.A. Nguyen. MProlog: An Extension of Prolog for Modal Logic Programming. In B. Demoen and V. Lifschitz, editor, *Proceedings of the 20th International Conference on Logic*

Talks

1. A Cut-Free ExpTime Tableau Decision Procedure for the Description Logic SHI, *the 3rd International Conference on Computational Collective Intelligence - Technologies and Applications*, Gdynia, Poland, September 2011.
2. On the Web Ontology Rule Language OWL 2 RL, *the 3rd International Conference on Computational Collective Intelligence - Technologies and Applications*, Gdynia, Poland, September 2011.
3. Cut-Free ExpTime Tableaux for Checking Satisfiability of a Knowledge Base in the Description Logic ALCI, *the 19th International Symposium on Methodologies for Intelligent Systems*, Warsaw, Poland, June 2011.
4. Paraconsistent and Approximate Semantics for the OWL 2 Web Ontology Language, *the 7th International Conference on Rough Sets and Current Trends in Computing*, Warsaw, Poland, June 2010.
5. An Optimal Tableau Decision Procedure for Converse-PDL, *the 1st Intl. Conference on Knowledge and Systems Engineering*, Hanoi, Vietnam, October 2009.
6. Extending the Description Horn Logic DHL, *Intl. Workshop on Concurrency Specification and Programming*, Kraków-Przegorzały, Poland, September 2009.
7. Checking Consistency of an ABox w.r.t. Global Assumptions in PDL, *Intl. Workshop on Concurrency Specification and Programming*, Kraków-Przegorzały, Poland, September 2009.
8. A Tableau Calculus for Regular Grammar Logics with Converse, *the 22nd Intl. Conference on Automated Deduction*, Montreal, Canada, August 2009.
9. An Efficient Tableau Prover using Global Caching for the Description Logic ALC, *Intl. Workshop on Concurrency Specification and Programming*, Gross Vaeter, Germany, September 2008.
10. Sound Global Caching for Abstract Modal Tableaux, *Intl. Workshop on Concurrency Specification and Programming*, Gross Vaeter, Germany, September 2008.
11. Analytic Cut-free Tableaux for Regular Modal Logics of Agent Beliefs, *the 8th Intl. Workshop on Computational Logic in Multi-Agent Systems*, Porto, Portugal, September 2007.
12. Weakening Horn Knowledge Bases in Regular Description Logics to Have PTIME Data Complexity, *Intl. Workshop on „Automated Deduction: Decidability, Complexity, Tractability”*, Bremen, Germany, July 2007.
13. The data complexity of MDatalog in basic modal logics, *the 31st Intl. Symposium on Mathematical Foundations of Computer Science*, Stara Lesna, Slovakia, August 2006.
14. A Bottom-up Method for the Deterministic Horn Fragment of the Description Logic ALC, *the 10th European Conference on Logics in Artificial Intelligence*, Liverpool, UK, September 2006.
15. Reasoning about Epistemic States of Agents by Modal Logic Programming, *the 6th Intl. Workshop on Computational Logic in Multi-Agent Systems*, London, UK, June 2005.
16. On Modal Deductive Databases, *the 9th East-European Conference on Advances in Databases and Information Systems*, Tallinn, Estonia, September 2005.
17. Negative Hyper-Resolution as Procedural Semantics of Disjunctive Logic Programs, *the 9th European Conference on Logics in Artificial Intelligence*, Lisbon, Portugal, September 2004.

18. The Modal Logic Programming System MProlog, *the 9th European Conference on Logics in Artificial Intelligence*, Lisbon, Portugal, September 2004.
19. On the Complexity of Fragments of Modal Logics, *the 5th Intl. Conference on Advances in Modal Logic*, Manchester, UK, September 2004.
20. Multimodal Logic Programming, *Logic and Automated Reasoning Summer School*, Australian National University, Canberra, Australia, December 2003.
21. Analytic Tableau Systems for Propositional Bimodal Logics of Knowledge and Belief, *Intl. Conference on Automated Reasoning with Analytic Tableaux and Related Methods*, Copenhagen, Denmark, July 2002.
22. Sequent-Like Tableau Systems with the Analytic Superformula Property for the Modal Logics KB, KDB, K5, KD5, *Intl. Conference on Automated Reasoning with Analytic Tableaux and Related Methods*, St Andrews, UK, July 2000.
23. A New Space Bound for the Modal Logics K4, KD4, and S4, *the 24th Intl. Symposium on Mathematical Foundations of Computer Science*, Szklarska Poręba, Poland, September 1999.