

# DOREL LUCANU

## Curriculum Vitae

June 6, 2016

### 1 Address

### 2 Personal data

Romanian nationality

Married with GEORGETA LUCANU

2 children:

DIANA DÖR LUCANU

TUDOR LUCANU

### 3 Education

Ph.D. Supervising (equivalent to the habilitation), Alexandru Ioan Cuza University, Iași, 2007

Ph.D. Computer Science, Institute of Mathematics of Romanian Academy, București, 1994

B.Sc. Mathematics and Computer Science, 1981, Alexandru Ioan Cuza University, Iași, Romania

### 4 Research Interests

Formal Methods in Software Engineering (Automated Coinductive Proving, Rewriting Logic, Specification and Verification), Semantics of Program Languages, Membrane Computing (P Systems), Semantics of Semantic Web Languages.

### 5 Teaching Experience

Professor at Faculty of Computer Science, University "A.I.Cuza" of Iași, 2004 – present

Associate Professor at Faculty of Computer Science, University "A.I.Cuza" of Iași, 1996 – 2004

Lecturer at Faculty of Computer Science, University "A.I.Cuza" of Iași, 1991–1996

Assistant professor at Faculty of Mathematics and Computation, University "A.I.Cuza" of Iași, 1990–1991

**Taught Courses:** Algorithm Design, Object Oriented Programming, System Specification and Verification, Formal Methods in Software Engineering, Algebraic Programming, Software Quality, Principle of Programming Languages

## 6 Computer Programming Experience

Programmer at Computer Center of "A.I.Cuza" University of Iasi, 1984–1990  
Programmer at Computer Center of I.M.U. Bacău, 1981–1984

## 7 Management Experience

Director, Department of Computer Science (2008 – present)  
Vicedean, Faculty of Computer Science (2000 – 2008)  
Technical Manager, Romanian Branch of Gentricks (Software Development Company from Germany), (2000 – 2001)  
Director of "A.I.Cuza" university Branch of ANIMU (1998 – 2001)

## 8 Awards

"Grigore Moisil" Award, Romanian Academy, 2004.

## 9 Visiting Positions

INRIA Lille-Nord, July-Augusts 2014  
INRIA Lille-Nord, July 2013  
Centrum Wiskunde & Informatica (CWI), Amsterdam, November 2011  
University of Illinois at Urbana Champaign, US, June 1 - August 22, 2010. Visiting Scientist.  
Research Institute of Symbolic Computation, Linz, Austria, Visiting Scientist.  
University of Illinois at Urbana Champaign, US, February 19 - March 27, 2008. Visiting Scientist.  
National University of Singapore, August 1 - September 17, 2007. Visiting Scientist.  
University of Illinois at Urbana Champaign, January 16 - April 11, 2006. Visiting Scientist.  
Digital Enterprise research Institute (DERI) Innsbruck, December 3 - 9, 2005. Visiting Scientist.  
National University of Singapore, April 6 - May 5, 2005. Visiting Scientist.  
National University of Singapore May 28 - June 17, 2003. Visiting scientist within EERSS Program.  
University of Granada, Faculty of Computer Science Engineering, May 13 - June 11, 1999. TEMPUS Program.  
Laboratoire de Recherche en Informatique (LRI), Université Paris-Sud (Orsay), France, June 1-30, 1996. Invited by LRI and supported by French Embassy in Romania.  
Staffordshire University, School of Computing, UK, February 13 - May 6, 1995. TEMPUS Program.

## 10 Publications

### Thesis

- [1] D. Lucanu. *Algebraic Methods in the Study of Concurrent Systems*. PhD dissertation, Institute of Mathematics of Romanian Academy, Bucharest, Dec. 1994.

## Books

- [2] D. Lucanu and M. Craus. *Proiectarea algoritmilor*. Polirom, 2008. ISBN 978-973-46-1140-9.
- [3] D. Lucanu and T. Jucan. *Programarea calculatoarelor (Ediția Pascal)*. Editura Universității “A.I.Cuza”, Iași, 2002. ISBN 973-8243-30-0.
- [4] D. Lucanu. *Proiectarea algoritmilor: Tehnici elementare*. Editura Universității “A.I.Cuza”, Iași, 1993. ISBN 973-9149-04-9.

## Journal Papers

- [5] Ștefan Ciobâcă, Dorel Lucanu, Vlad Rusu, and Grigore Rosu. A language-independent proof system for full program equivalence. *Formal Asp. Comput.*, 28(3):469–497, 2016.
- [6] Vlad Rusu, Dorel Lucanu, Traian-Florin Serbanuta, Andrei Arusoae, Andrei Stefanescu, and Grigore Rosu. Language definitions as rewrite theories. *J. Log. Algebr. Meth. Program.*, 85(1):98–120, 2016.
- [7] Andrei Arusoae, Dorel Lucanu, and Vlad Rusu. Symbolic execution based on language transformation. *Computer Languages, Systems & Structures*, 44:48–71, 2015.
- [8] Dorel Lucanu and Vlad Rusu. Program equivalence by circular reasoning. *Formal Asp. Comput.*, 27(4):701–726, 2015.
- [9] Irina Mariuca Asavoae, Frank S. de Boer, Marcello M. Bonsangue, Dorel Lucanu, and Jurriaan Rot. Model checking recursive programs interacting via the heap. *Sci. Comput. Program.*, 100:61–83, 2015.
- [10] Andrei Arusoae, Dorel Lucanu, and Vlad Rusu. Towards a K semantics for OCL. *Electr. Notes Theor. Comput. Sci.*, 304:81–96, 2014.
- [11] Traian-Florin Serbanuta, Andrei Arusoae, David Lazar, Chucky Ellison, Dorel Lucanu, and Grigore Rosu. The K primer (version 3.3). *Electr. Notes Theor. Comput. Sci.*, 304:57–80, 2014.
- [12] M. Bonsangue, G. Caltais, E.-L. Goriac, D. Lucanu, J. Rutten, and A. Silva. Automatic equivalence proofs for non-deterministic coalgebras. *Science of Computer Programming*, 78(9):1324 – 1345, 2013.
- [13] Dorel Lucanu. Rewriting logic-based semantics of p systems and the maximal concurrency. *Int. J. Found. Comput. Sci.*, 20(3):395–410, 2009.
- [14] Dorel Lucanu. Strategy-based rewrite semantics for membrane systems preserves maximal concurrency of evolution rule actions. *Electr. Notes Theor. Comput. Sci.*, 237:107–125, 2009.
- [15] Eugen-Ioan Goriac, Georgiana Caltais, Dorel Lucanu, Oana Andrei, and Gheorghe Grigoras. Patterns for maude metalanguage applications. *Electr. Notes Theor. Comput. Sci.*, 238(3):121–138, 2009.
- [16] Oana Andrei and Dorel Lucanu. Strategy-based proof calculus for membrane systems. *Electr. Notes Theor. Comput. Sci.*, 238(3):23–43, 2009.
- [17] Oana Andrei, Gabriel Ciobanu, and Dorel Lucanu. A rewriting logic framework for operational semantics of membrane systems. *Theoretical Computer Science*, 373(3):163 – 181, 2007.
- [18] D. Lucanu, Y.F. Li, and J.S. Dong. RDF Framework Institutions. *Proceedings of the Romanian Academy*, 7(1):65–72, 2006.
- [19] Gh. Grigoraș and D. Lucanu. On Hidden Algebra Semantics of Object Oriented Languages. *Sci. Ann. of the “A.I.Cuza” Univ. of Iași*, 14(Computer Science):51–68, 2004.
- [20] D. Lucanu. On Bisimulation in HidenCCS. *Sci. Ann. of the “A.I.Cuza” Univ. of Iași*, 13(Computer Science):143–161, 2003.
- [21] D. Lucanu. Relaxed Models for Rewriting Logic. *Theoretical Computer Science*, 290(1):265–289, 2003.

- [22] D. Lucanu. Initial Logic an Induction in Algebraic Specification. *Sci. Ann. of the "A.I.Cuza" Univ. of Iași*, 12(Computer Science):79–108, 2002.
- [23] R. Grosu, D. Lucanu, and Gh. Ștefănescu. Mixed Relations as Enriched Semiringal Categories. *Journal of Universal Computer Science*, 6(1):112–129, 2000.
- [24] D. Lucanu. Canonical Forms in Dag Algebras. *Sci. Ann. of the Univ. of Bucharest*, pages 97–114, 1997.
- [25] D. Lucanu and N. Surpățanu. On Refinement in Rewriting Logic. *Sci. Ann. of the "A.I.Cuza" Univ. of Iași*, 5-6(Computer Science):67–84, 1996-1997.
- [26] D. Lucanu. Algebraic Structures of Directed Acyclic Graphs: Application to Concurrent Calculus. *International Journal of Computer Mathematics*, 57(3):127–156, 1995.
- [27] D. Lucanu. Fixed-point Solutions for Ground Term Rewriting. *Sci. Ann. of the "A.I.Cuza" Univ. of Iași*, 3(Computer Science):75–83, 1994.
- [28] D. Lucanu. Infinite Planar Dags. *Sci. Ann. of the "A.I.Cuza" Univ. of Iași*, 35(4):313–322, 1989.
- [29] D. Lucanu. A Representation Theorem for Regular Array Languages. *Bull.Math. de la Soc.Scie.Math. de la Roumanie*, 31(2):137–145, 1987.
- [30] D. Lucanu. Several Properties of Array Languages. *Information Science*, 43:185–203, 1987.
- [31] D. Lucanu and D. Cristea. Contextual Systems and Contextual Transducers. *Sci. Ann. of the "A.I.Cuza" Univ. of Iași*, 33(4):357–364, 1987.

## Major Conference Papers

- [32] Ștefan Ciobăcă, Dorel Lucanu, Vlad Rusu, and Grigore Rosu. A language-independent proof system for mutual program equivalence. In *Formal Methods and Software Engineering - 16th International Conference on Formal Engineering Methods, ICFEM 2014, Luxembourg, Luxembourg, November 3-5, 2014. Proceedings*, volume 8829 of *Lecture Notes in Computer Science*, pages 75–90. Springer, 2014.
- [33] Dorel Lucanu and Vlad Rusu. Program equivalence by circular reasoning. In *IFM*, *Lecture Notes in Computer Science*, pages 362–377. Springer, 2013.
- [34] David Lazar, Andrei Arusoale, Traian Florin Serbanuta, Chucky Ellison, Radu Mereuta, Dorel Lucanu, and Grigore Rosu. Executing formal semantics with the k tool. In *Proceedings of the 13th International Symposium on Formal Methods (FM'12)*, volume 7436 of *Lecture Notes in Computer Science*, pages 267–271. Springer, 2012.
- [35] Vlad Rusu and Dorel Lucanu. A k-based formal framework for domain-specific modelling languages. In *Formal Verification of Object-Oriented Software, FoVeOOS 2011*, pages 306–323, 2011.
- [36] Marcello M. Bonsangue, Georgiana Caltais, Eugen-Ioan Goriac, Dorel Lucanu, Jan J. M. M. Rutten, and Alexandra Silva. A decision procedure for bisimilarity of generalized regular expressions. In *Formal Methods: Foundations and Applications - 13th Brazilian Symposium on Formal Methods, SBMF 2010*, pages 226–241, 2010.
- [37] Eugen Goriac, Dorel Lucanu, and Grigore Roșu. Automating coinduction with case analysis. In *ICFEM*, volume 6447 of *Lecture Notes in Computer Science*, pages 220–236, 2010.
- [38] Dorel Lucanu, Eugen-Ioan Goriac, Georgiana Caltais, and Grigore Roșu. CIRC : A behavioral verification tool based on circular coinduction. In *CALCO 2009*, volume 5728 of *LNCS*, pages 433–442. Springer, 2009.
- [39] Dorel Lucanu and Grigore Roșu. Circular coinduction with special contexts. In *ICFEM*, volume 5885 of *LNCS*, pages 639–659. Springer, 2009.

- [40] Grigore Roşu and Dorel Lucanu. Circular Coinduction – A Proof Theoretical Foundation. In *CALCO 2009*, volume 5728 of *LNCS*, pages 127–144. Springer, 2009.
- [41] D. Lucanu and G. Roşu. Circ: A Circular Coinductive Prover. In T. Mossakowski and et al., editors, *2nd Conference on Algebra and Coalgebra in Computer Science (CALCO 2007)*, volume 4624 of *Lecture Notes in Computer Science*, pages 372–378. Springer, 2007.
- [42] Gabriel Ciobanu and Dorel Lucanu. Events, causality, and concurrency in membrane systems. In *Workshop on Membrane Computing*, volume 4860 of *Lecture Notes in Computer Science*, pages 209–227. Springer, 2007.
- [43] D. Lucanu, Y.F. Li, and J.S. Dong. Institution Morphisms for Relating OWL and Z. In *The Seventeenth International Conference on Software Engineering and Knowledge Engineering*, Taipei, Taiwan, Republic of China, 2005.
- [44] G. Ciobanu and D. Lucanu. Specification and Verification of Synchronizing Concurrent Objects. In E.Boiten, J.Derrick, and G.Smith, editors, *Integrated Formal Methods (IFM) 2004*, volume 2999 of *Lecture Notes in Computer Science*, pages 307–327. Springer, 2004.
- [45] D. Lucanu and G. Ciobanu. Model Checking for Object Specifications in Hidden Algebra. In B.Steffen and G.Levi, editors, *Verification, Model Checking, and Abstract Interpretation 5th VMCAI*, volume 2937 of *Lecture Notes in Computer Science*, pages 97–109. Springer, 2004.
- [46] D. Lucanu. Axiomatization of the Coherence Property for Categories of Symmetries. In G. Ciobanu and Gh. Păun, editors, *Fundamentals of Computation Theory, 12th International Symposium FCT'99*, volume 1684 of *LNCS*, pages 386–405, Iaşi, Romania, 1999. Springer Verlag.

## Important Workshop Papers

- [47] Andrei Arusoae, Dorel Lucanu, Vlad Rusu, Traian-Florin Serbanuta, Andrei Stefanescu, and Grigore Rosu. Language definitions as rewrite theories. In *WRLA*, to appear in *Lecture Notes in Computer Science*. Springer, 2014.
- [48] Jurriaan Rot, Irina Mariuca Asavoae, Frank S. de Boer, Marcello M. Bonsangue, and Dorel Lucanu. Interacting via the heap in the presence of recursion. In *ICE*, volume 104 of *EPTCS*, pages 99–113, 2012.
- [49] Gheorghe Grigoras, Dorel Lucanu, Georgiana Caltais, and Eugen-Ioan Goriac. Automated proving of the behavioral attributes. In *2009 Fourth Balkan Conference in Informatics, BCI 2009*, pages 33–38, 2009.
- [50] Gabriel Ciobanu and Dorel Lucanu. Model-based testing and analysis of coordinated components. *ECEASST*, 20, 2009.
- [51] D. Lucanu G. Caltais, E. Goriac and Gh. Grigoras. A Rewrite Stack Machine for ROC! In *10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*. IEEE Computer Society, 2008.
- [52] Dorel Lucanu. Rewriting Logic-based Semantics of Membrane Systems and the Maximal Concurrency. In *Proceedings of Prague International Workshop on Membrane Computing*, pages 23–34. Silesian University in Opava, 2008.
- [53] D. Lucanu. Proving Behavioral Commutativity with CIRC. In *9th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, pages 79–86. IEEE Computer Society, 2007.
- [54] D. Lucanu, G. Roşu, and Gh. Grigoras. Regular Strategies as Proof Tactics for CIRC Prover. *Electron. Notes Theor. Comput. Sci.*, 204:83–98, 2007.

- [55] Oana Andrei, Gabriel Ciobanu, and Dorel Lucanu. Expressing Control Mechanisms of Membranes by Rewriting Strategies. In *Workshop on Membrane Computing*, volume 4361 of *Lecture Notes in Computer Science*, pages 154–169. Springer, 2006.
- [56] M. Daneş, G. Ciobanu, and D. Lucanu. Specification of Coordinated Objects and Verification of Their Temporal Properties. In *7th International Workshop on Symbolic and Numeric Algorithms for Scientific Computing*, pages 259–266. IEEE Computer Society, 2005.
- [57] O. Andrei, G. Ciobanu, and D. Lucanu. Operational Semantics and Rewriting Logic in Membrane Computing. *Electr. Notes Theor. Comput. Sci.*, 156(1):57–78, 2005.
- [58] G. Ciobanu and D. Lucanu. A Specification Language for Coordinated Objects. *ACM SIGSOFT Software Engineering Notes*, 31(2), 2006.
- [59] O. Andrei, G. Ciobanu, and D. Lucanu. Structural Operational Semantics of P Systems. In R. Freund, Gh. Paun, G. Rozenberg, and A. Salomaa, editors, *Membrane Computing: 6th International Workshop, WMC 2005, Revised Selected and Invited Papers*, volume 3850 of *Lecture Notes in Computer Science*, pages 31 – 48. Springer, 2006.
- [60] D. Lucanu, Y.F. Li, and J.S.Dong. Proof of Z Semantics of OWL Using Institutions. In *The 14th International World Wide Web Conference (WWW2005)*, Chiba, Japan, 2005. Accepted as poster.
- [61] O. Andrei, G. Ciobanu, and D. Lucanu. Executable Specifications of the P Systems. In G. Mauri, Gh. Paun, and M.J. Prez-Jimnez et al., editors, *Membrane Computing WMC5 (2004), Revised Selected and Invited Papers*, Lecture Notes in Computer Science 3365, pages 127–146. Springer, 2005.
- [62] D. Lucanu. Classes and Objects in Hidden Algebra. In Editura Universităţii din Oradea, editor, *International Conference on Computers and Communications*, pages 219–225, 2004.
- [63] G. Ciobanu and D. Lucanu. Communicating Concurrent Objects in HiddenCCS. *Electronic Notes in Theoretical Computer Science*, 117:353–373, 2004.
- [64] D. Lucanu. Initial Many Sorted Algebra. In D. Petcu, V. Negru, D. Zaharie, and T. Jebelean, editors, *Symbolic and Numeric Algorithms for Scientific Computing*, volume XL, pages 135–154, 2002.
- [65] Dorel Lucanu, Ovidiu Gheorghies, and Adriana Apetrei. Bisimulation and hidden algebra. *Electr. Notes Theor. Comput. Sci.*, 19:181–200, 1999.
- [66] D. Lucanu. Algebraic Specification of Object Aggregation, An Event-Based Approach. In K. Futatsugi, J. Goguen, and J. Meseguer, editors, *OBJ/CafeOBJ/Maude Workshop at FM99*, pages 115–132, Toulouse, France, September 1999. Theta.

## Invited Papers

- [67] Dorel Lucanu, Traian-Florin Serbanuta, and Grigore Rosu. Towards a  $\mathbb{K}$  future. In *Theory and Practice of Formal Methods - Essays Dedicated to Frank de Boer on the Occasion of His 60th Birthday*, volume 9660 of *Lecture Notes in Computer Science*, pages 325–343. Springer, 2016.
- [68] Dorel Lucanu, Vlad Rusu, Andrei Arusoai, and David Nowak. Verifying reachability-logic properties on rewriting-logic specifications. In *Logic, Rewriting, and Concurrency - Essays dedicated to José Meseguer on the Occasion of His 65th Birthday*, volume 9200 of *Lecture Notes in Computer Science*, pages 451–474. Springer, 2015.
- [69] Grigore Rosu and Dorel Lucanu. Behavioral rewrite systems and behavioral productivity. In *Festschrift in Honor of Kokichi Futatsugi*, LNCS, 2014.
- [70] Daniel Gaina, Dorel Lucanu, Kazuhiro Ogata, and Kokichi Futatsugi. On automation of ots/cafeobj method. In *Festschrift in Honor of Kokichi Futatsugi*, LNCS, 2014.
- [71] Dorel Lucanu, Traian-Florin Serbanuta, and Grigore Rosu. K framework distilled. In *WRLA*, volume 7571 of *Lecture Notes in Computer Science*, pages 31–53. Springer, 2012.

- [72] D. Lucanu, Y.F. Li, and J.S. Dong. Semantic Web Languages - Towards an Institutional Perspective. In K. Futatsugi, J.P. Jouannaud, and J. Meseguer, editors, *Algebra, Meaning and Computation (Festschrift in Honor of Prof. Joseph Goguen)*, volume 4060 of LNCS, pages 99–124. Springer, 2006.
- [73] G.Ciobanu and D.Lucanu. Cellular Meta-Programming over Membranes. In J-P.Banatre, P.Fradet, J-L.Giavitto, and O.Michel, editors, *Unconventional Programming Paradigms*, number 3566 in LNCS, pages 189–199. Springer, 2005.
- [74] D. Lucanu. Algebraic Engineering of Program Verification. In Mitică Craus, Dan Gâlea, and Alexandru Valachi, editors, *New Trends in Computer Science and Engineering, Anniversary Volume, Faculty of Automatic Control and Computer Engineering Technical University "Gh. Asachi"*, pages 111–129. Polirom Press, 2003. ISBN 973-9476-40-6.

## Projects

- [75] D. Lucanu (Co-director). An Executable Semantic Framework for Rigorous Design, Analysis and Testing of Systems (DAK). POSCCE 161/15.06.2010, cod SMIS-CSNR 12516-602. 4713822 RON.
- [76] D. Lucanu (External Collaborator). CORE: coinductive calculi of regular expressions. NWO (Dutch Science organisation) (director Jan Rutten. <http://www.nwo.nl/en/research-and-results/research-projects/57/2300158557.html>).
- [77] D. Lucanu (Management Committee Member). Formal Verification of Object-Oriented Software (FoVeOOS). ICT COST Action IC0701. [http://www.cost.eu/COST\\_Actions/ict/IC0701](http://www.cost.eu/COST_Actions/ict/IC0701).
- [78] D. Lucanu (Director). Automated Verification by Circularities (CIRC). CNCSIS ID-393. 983669 RON.
- [79] D. Lucanu (Director). Specification and Verification of the Systems based on coordinated concurrent components. Project CNCSIS 1162/2006, 2006-2008. 179000 RON.
- [80] D. Lucanu (Member of UAIC Partner). Intelligent Systems of the Semantic Web based on Ontology Logic and Language Technology (Rotel). Project CEEEX, 2005.
- [81] D. Lucanu (Project leader of UAIC partner). Formalisms of calculus inspired from molecular biology (ForMol). Project CEEEX 47/2005, 2005-2008. 150000 RON.
- [82] D. Lucanu (Project leader of UAIC partner). IP core and system design of associative memory arrays for semantic search: "amass". Project 018283 funded by the Commission of the European Communities under the Craft Action of Framework 6, 2005. 48000 Euro.
- [83] D. Lucanu (Director). Algebraic structures applied in specification and modelling of systems. Project CNCSIS 32576-14-177, 1999,2000. 19000 mii lei.
- [84] D. Lucanu (Director). Algebraic models of concurrent and distributed calculus. Project CNCSIS 7011-44-727, 1997. 6000 mii lei.

## Miscellanea (including Technical Reports)

- [85] A. Arusoaie, D. Lucanu, and V. Rusu. A generic approach to symbolic execution. Technical Report RR-8189, INRIA, December 2012.
- [86] Dorel Lucanu and Vlad Rusu. Program equivalence by circular coinduction. Technical Report RR-8116, INRIA, October 2012.
- [87] D. Lucanu, Y. F. Li, and J. S. Dong. Web ontology verification and analysis in the z framework. Technical Report TR. 05-01, "Alexandru Ioan Cuza" University of Iași, Romania, 2005.

- [88] D. Lucanu. A Logical Foundation of the OWL Languages. In Paphos University of Cyprus, editor, *First International Symposium on Leveraging Applications of Formal Method (ISoLA)*, volume TR-2004-6, pages 135–142, 2004.
- [89] D. Lucanu G. Ciobanu. Specification and verification of synchronized concurrent objects. Technical Report TR 03-05, “A.I.Cuza” University of Iași, Faculty of Computer Science, 2003. URL:<http://www.infoiasi.ro/tr/tr.pl.cgi>.
- [90] G. Ciobanu D. Lucanu. Behavioral bisimulation and ctl models for hidden algebraic specifications. Technical Report TR 03-03, “A.I.Cuza” University of Iași, Faculty of Computer Science, 2003. URL:<http://www.infoiasi.ro/tr/tr.pl.cgi>.
- [91] Dorel Lucanu. Concurrent composition of objects in hidden logic. Technical Report TR 03-01, “A.I.Cuza” University of Iași, Faculty of Computer Science, 2003. URL:<http://www.infoiasi.ro/tr/tr.pl.cgi>.
- [92] D. Lucanu, S. Iida, and R. Diaconescu. Concurrent composition, refinement, and fairness in Cafeobj, a case study: Alternating bit protocol. Technical Report TR 00-01, “A.I.Cuza” University of Iași, Faculty of Computer Science, 1999.
- [93] D. Lucanu. On object aggregation in CafeOBJ: Three case studies. Technical Report TR 99-01, “A.I.Cuza” University of Iași, Faculty of Computer Science, 1999.
- [94] S. Iida, M. Matsumoto, R. Diaconescu, K. Futatsugi, and D. Lucanu. Concurrent object composition in CafeOBJ. Technical Report IS-RR-98-00098, Japan Advanced Institute of Science and Technology, 1998.
- [95] D. Lucanu. On the axiomatization of the category of symmetries. Technical report TR-98-03, University “A.I.Cuza” of Iași, Faculty of Computer Science, December 1998.
- [96] D. Lucanu and M. Petrea. On Mixed Network Algebra as Computational Model. In *DISCO Conference*. Politehnica University of Bucharest, April 1997.
- [97] D. Lucanu and L. Ibănescu. On the Algebraic Structure of Hypergraphs. In *Romanian Symposium on Computer Science*, Iași, Romania, May 1996. University “A.I.Cuza”.
- [98] D. Lucanu. Directed Acyclic Graphs as Data Types for Concurrent Object-Oriented Programming. In *British Colloquium on Theoretical Computer Science*, Swansea, GB, April 1995. An extended abstract appears in Bull. EATCS 58, 1996.
- [99] D. Lucanu. Concurrent Programming using Rewriting Logic, Top-Down Design and Refinement. In *Symposium Intelligent Computer Communication*, Cluj-Napoca, Romania, June 1995.
- [100] D. Lucanu. Systems of Equations on Magmoids. In *Romanian Symposium on Computer Science*, Iași, Romania, Oct. 1993. University “A.I.Cuza”.
- [101] D. Lucanu and D. Cristea. Contextual Transducers. In *Jubilee Conference*. Computer Center, University of Bucharest, Oct. 1987. (In Romanian).
- [102] D. Lucanu. A Representation Theorem for Regular Array Languages. In *Romanian Symposium on Computer Science*, Iași, Romania, Oct. 1983. University “A.I.Cuza”. (In Romanian).
- [103] D. Lucanu. Pictorial Form Recognition by Array Automata. In *Romanian Symposium on Computer Science*, Iași, Romania, Oct 1981. University “A.I.Cuza”. (In Romanian).



## Presentations

- [104] D. Lucanu. K definitions as push-down specifications. 9th MC and WG Meeting, Darmstadt, Germany, 2012.
- [105] D. Lucanu. Contributions to the k framework. 7th MC+WG Meeting, 2nd Action Training School, Limerick, Ireland, 2011.
- [106] D. Lucanu. An introduction to k framework by examples. Centrum Wiskunde and Informatica (CWI), March 2011.
- [107] D. Lucanu and G. Rosu. Circular behavioral reasoning. Centrum Wiskunde and Informatica (CWI), November 2011.
- [108] D. Lucanu. Circ prover: an overview. Second Romanian-Japanese Algebraic Specification Workshop, 2011.
- [109] D. Lucanu. Circ prover: an overview. Second Romanian-Japanese Algebraic Specification Workshop, 2011.
- [110] D. Lucanu and G. Rosu. On complexity of the behavioral properties. COST Action IC0701, 4th MC and WG Meeting, Eindhoven, 2009.
- [111] Dorel Lucanu, Grigore Roşu, Eugen Goriac, and Georgiana [Caltais] Goriac. CIRC: New features. CWI, Amsterdam, January 2009.
- [112] Dorel Lucanu, Grigore Roşu, Eugen Goriac, and Georgiana [Caltais] Goriac. A general overview of CIRC. CWI, Amsterdam, January 2009.
- [113] D. Lucanu. Theoretical Foundations of CIRC. West University, Timișoara, September 2008.
- [114] D. Lucanu. Circular coinduction-based techniques for proving behavioral properties. INRIA-LORIA, Nancy, November 2008.
- [115] D. Lucanu. Integrated Semantics for OWL Ontologies. National University of Singapore, September 2007.
- [116] D. Lucanu. Proving coinductive properties with CIRC. National University of Singapore, August 2007.
- [117] D. Lucanu. However, what is the semantics of OWL? Istituto di Cibernetica of the National Research Council (CNR) in Naples, May 2007.
- [118] D. Lucanu. Institutional foundation for combining logic programming paradigms with description logic in semantic web. Universitatea Bucureşti, December 2006.
- [119] D. Lucanu. Institution-independent logic programming paradigms. Logic and Information Workshop Aspects of Ontologies, Schloss Mnchenwiler, 22-23 November 2006.
- [120] D. Lucanu. Logic programming viewpoints on web ontologies. Logic and Information Workshop Aspects of Ontologies, Schloss Mnchenwiler, 22-23 November 2006.
- [121] D. Lucanu. An Institutional Perspective of Semantic Web Stack. Digital Enterprise Research Institute (DERI), Austria, December 2005.
- [122] D. Lucanu. Programming Logic Views on Web Ontologies. "A.I.Cuza" University of Iaşi, Faculty of Computer Science, November 2005.
- [123] D. Lucanu. On Logical Foundation of the Semantic Web. An Institution-based Approach. National University of Singapore, April 2005.
- [124] D. Lucanu. On Logical Foundation of the Semantic Web. Invited by Department of Information Science of Romanian Academy, February 2005.

- [125] D. Lucanu. Software Engineering using Algebraic Specification. National University of Singapore, June 2003.
- [126] D. Lucanu. On the New Technologies in Software Development. A.I.Cuza" University of Iași, Faculty of Computer Science, Oct. 2001.
- [127] D. Lucanu. Induction versus Coinduction. "A.I.Cuza" University of Iași, Faculty of Computer Science, Oct. 1999.
- [128] D. Lucanu. On Formal Specification of Objects. "A.I.Cuza" University of Iași, Faculty of Computer Science, Oct. 1996.
- [129] D. Lucanu. Proof Technologies in CafeOBJ. In *The First Romanian-Japanese Algebraic Specification Meeting*, Sinaia, Romania, August 1997. <http://www.imar.ro/~diacon/rj97-post.html>.
- [130] D. Lucanu. Algebraic Semantics of Concurrent Systems. Ph.D. Report, "A.I.Cuza" University of Iași, Faculty of Computer Science, Feb. 1992.
- [131] D. Lucanu. Models of Concurrent Calculus. Ph.D. Report, "A.I.Cuza" University of Iași, Faculty of Computer Science, Sep. 1991.
- [132] D. Lucanu. Infinite Dags. Ph.D. Report, "A.I.Cuza" University of Iași, Faculty of Computer Science, Feb. 1991.
- [133] D. Lucanu. Foundations of Programming Languages. Course delivered to CTCE Iași (in Romanian), 1988.