PERSONAL INFORMATION   Aleksandar Dimovski

📍 12 Udarna Brigada 2a/kati VII, 1000 Skopje, Macedonia

✉ aleksandar.dimovski@unt.edu.mk

🌐 https://aleksdimovski.github.io/

Sex M | Nationality Macedonian

WORK EXPERIENCE

Jan 2018 - Current

Associate Professor
Mother Teresa University, Faculty of Informatics, Skopje, Macedonia

Jan 2014 - 2017

PostDoc Researcher
IT University of Copenhagen, Department of Computer Science, Copenhagen, Denmark

Feb 2008 - 2013

Associate Professor
FON University, Faculty of Information and Communication Technologies, Skopje, Macedonia

Oct 2003 - 2007

Research and Teaching Assistant
Warwick University, Department of Computer Science, Coventry, United Kingdom

Oct 2001 - 2003

Research and Teaching Assistant
Sts Cyril and Methodius University, Faculty of Natural Sciences and Mathematics, Skopje, Macedonia

EDUCATION

Oct 2003 - 2007

PhD in Computer Science   EQF level 8
Warwick University, Department of Computer Science, Coventry, United Kingdom

▪ "Compositional Software Verification Based on Game Semantics"

Oct 2001 - 2003

M.Sc. in Informatics
Sts Cyril and Methodius University, Faculty of Natural Sciences and Mathematics, Skopje, Macedonia

▪ "Application of Optimisation Search Heuristics in Cryptology "

2000

B.Sc. in Informatics
Sts Cyril and Methodius University, Faculty of Natural Sciences and Mathematics, Skopje, Macedonia

PERSONAL SKILLS

Mother tongue(s)   Macedonian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
C2	C2	C2	C2	C2
Albanian				
A2	A2	A2	A2	A2
IELTS				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

▪ good communication skills gained through my experience as university teacher and presenter at scientific conferences.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Driving licence

B

ADDITIONAL INFORMATION

Publications

Books:

▪ A. Dimovski. Software Verification Based on Game Semantics and Process Algebra. VDM Verlag Dr. Muller, 2009.

▪ A. Dimovski. Основни концепти на програмирањето: семантички пристап. Матица македонска, 2009.

Journals:

▪ Aleksandar S. Dimovski, Claus Brabrand, Andrzej Wasowski: *Finding suitable variability abstractions for lifted analysis.* Formal Asp. Comput. (FAOC), Vol. 31(2): 231-259, Springer, 2019.

▪ Blagoj Atanasovski, Milos Bogdanovic, Goran Velinov, Leonid Stoimenov, Aleksandar S. Dimovski, Bojana Koteska, Dragan Jankovic, Irena Skrceska, Margita Kon-Popovska, Boro Jakimovski. *On defining a model driven architecture for an enterprise e-health system.* Enterprise IS, Vol. 12(8-9): 915-941, 2018.

▪ A. Dimovski, C. Brabrand, and A. Wasowski. *Variability abstractions for lifted analysis.* In Science of Computer Programming (**SCP**), Vol. 159: 1-27, Elsevier, 2018.

▪ A. Dimovski. *Verifying annotated program families using symbolic game semantics.* In Theoretical Computer Science (**TCS**), Vol. 706: 35-53, Elsevier, 2018.

▪ A. F. Iosif-Lazar, J. Melo, A. S. Dimovski, C. Brabrand, A. Wasowski. *Effective Analysis of C Programs by Rewriting Variability.* In The Art, Science, and Engineering of Programming Journal (**Programming**), Vol. 1(1): 1--25, 2017.

▪ A. Dimovski, A. S. Al-Sibahi, C. Brabrand, and A. Wasowski. *Efficient family-based model checking via variability abstractions.* In International Journal on Software Tools for Technology Transfer (**STTT**), 1--19, Springer-Verlag, May 2016.

▪ J. Midtgaard, A. Dimovski, C. Brabrand, and A. Wasowski. *Systematic derivation of correct variability-aware program analyses.* In Science of Computer Programming (**SCP**), Vol. 105: 145-170, Elsevier, 2015.

▪ A. Dimovski. *Program verification using symbolic game semantics.* In Theoretical Computer Science (**TCS**), Vol. 560: 364-379, Elsevier, 2014.

▪ A. Bakewell, A. Dimovski, D. R. Ghica, and R. Lazic. *Data-Abstraction Refinement: A Game Semantic Approach.* In International Journal on Software Tools for Technology Transfer (**STTT**), Vol. 12(5): 373--389, Springer-Verlag, 2010.

▪ A. Dimovski and R. Lazic. *Compositional Software Verification Based on Game Semantics and Process Algebras.* In International Journal on Software Tools for Technology Transfer (**STTT**) Vol. 9(1): 37--51, Springer-Verlag, 2007.

Conferences:

▪ Aleksandar S. Dimovski, Axel Legay, Andrzej Wasowski. *Variability Abstraction and Refinement for Game-Based Lifted Model Checking of Full CTL*. In Proceedings of the 22nd International Conference on Fundamental Approaches to Software Engineering (**FASE'19**), Lecture Notes in Computer Science 11424: 192 - 209, Springer, Prague, April 2019.

▪ A. Dimovski. *Abstract Family-based Model Checking using Modal Featured Transition Systems*. In Proceedings of the 21th International Conference on Fundamental Approaches to Software Engineering (**FASE'18**), Lecture Notes in Computer Science 10802: 301-318, Springer, Thessaloniki, April 2018.

▪ Ahmad Salim Al-Sibahi, Thomas P. Jensen, Aleksandar S. Dimovski, Andrzej Wasowski. *Verification of high-level transformations with inductive refinement types.* In Proceedings of the 17th ACM SIGPLAN International Conference on Generative Programming (**GPCE'18**), 147 - 160, ACM, Boston, November 2018.

▪ A. Dimovski. *Probabilistic Analysis Based On Symbolic Game Semantics and Model Counting*. In Proceedings of the Eighth International Symposium on Games, Automata, Logics and Formal Verification (**GandALF'17**), Electronic Proceedings in Theoretical Computer Science 256: 1--15, Rome, September 2017.

▪ A. Dimovski, A. Wasowski. *Variability-specific Abstraction Refinement for Family-based Model Checking*. In Proceedings of the 20th International Conference on Fundamental Approaches to Software Engineering (**FASE'17**), Lecture Notes in Computer Science 10202: 406--423, Springer, Uppsala, April 2017.

▪ A. Dimovski, A. Wasowski. *From Transition Systems to Variability Models \& From Lifted Model Checking Back to UPPAAL*. In Proceedings of Models, Algorithms, Logics and Tools: Essays Dedicated to Kim Guldstrand Larsen on the Occasion of His 60th Birthday (**KiMfest 2017**), Lecture Notes in Computer Science 10460: 249--268, Springer, Aalborg, August 2017.

▪ A. Dimovski, C. Brabrand, A. Wasowski. *Finding Suitable Variability Abstractions for Family-Based Analysis*. In Proceedings of the 21st International Symposium on Formal Methods (**FM'16**), Lecture Notes in Computer Science 9995: 217-234, Springer, Limassol, November 2016.

▪ A. Dimovski. *Symbolic Game Semantics for Model Checking Program Families*. In Proceedings of the 23rd International SPIN Symposium on Model Checking of Software (**SPIN'16**), Lecture Notes in Computer Science 9641: 19--37, Springer, Eindhoven, April 2016.

▪ A. S. Al-Sibahi, A. Dimovski, A. Wasowski. *Symbolic Execution of High-level Transformations*. In Proceedings of the 2016 ACM SIGPLAN International Conference on Software Language Engineering (**SLE'16**), ACM: 207--220, Amsterdam, October 2016.

▪ A. Dimovski, C. Brabrand, and A. Wasowski. *Variability abstractions: Trading precision for speed in family-based analyses*. In Proceedings of 29th European Conference on Object-Oriented Programming (**ECOOP'15**), LIPIcs 37: 247-270, Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Prague, July, 2015.

▪ A. Dimovski, A.S.Al-Sibahi, C.Brabrand, and A.Wasowski. *Family-based model checking without a family-based model checker*. In Proceedings of the 22nd International SPIN Symposium on Model Checking of Software (**SPIN'15**), Lecture Notes in Computer Science 9232: 282--299, Springer, Stellenbosch, August 2015.

▪ A.F.Iosif-Lazar, A.S.Al-Sibahi, A.Dimovski, J.E.Savolainen, K.Sierszecki, A.Wasowski. *Experiences from Designing and Validating a Software Modernization Transformation*. In Proceedings of the 30th IEEE/ACM International Conference on Automated Software Engineering (**ASE'15**), IEEE 2015: 597-607, Lincoln, November 2015.

▪ A. Dimovski. *Ensuring Secure Non-interference of Programs by Game Semantics*. In Proceedings of the 10th International Workshop on Security and Trust Management (**STM'14**), Lecture Notes in Computer Science 8743: 81-96, Springer, Wroclaw, September 2014.

▪ A. Dimovski. *Slot Games for Detecting Timing Leaks of Programs*. In Proceedings of Fourth International Symposium on Games, Automata, Logics and Formal Verification (**GandALF'13**), Electronic Proceedings in Theoretical Computer Science 119: 166-179, Borca di Cadore, September 2013.

▪ A. Dimovski. *Symbolic Representation of Algorithmic Game Semantics*. In Proceedings of Third International Symposium on Games, Automata, Logics and Formal Verification (**GandALF'12**), Electronic Proceedings in Theoretical Computer Science 96: 99--112, Naples, September 2012.

▪ D. Sahpaski, A. Dimovski, G. Velinov, and M. Kon-Popovska. *Efficient Processing of Top-K Join Queries by Attribute Domain Refinement*. In Proceedings of the 16th East European Conference on Advances in Databases and Information Systems (**ADBIS'12**), Lecture Notes in Computer Science 7503: 318--331, Springer, Poznan, September 2012.

▪ A. Dimovski. *A Compositional Method for Deciding Equivalence and Termination of Nondeterministic Programs*. In Proceedings of the 8th International Conference on Integrated Formal Methods (**iFM'10**), Lecture Notes in Computer Science 6396: 121-135, Springer, Nancy, October 2010.

▪ A. Dimovski. *A Compositional Method for Deciding Program Termination*. In Proceedings of 2nd International Conference ICT Innovations 2010 (**ICT'10**), Communications in Computer and Information Science 2011, Vol. 83(2): 71-80, Springer, Ohrid, September 2010.

▪ A. Dimovski, G. Velinov, and D. Sahpaski. *Horizontal Partitioning by Predicate Abstraction and its Application to Data Warehouse Design*. In Proceedings of the 14th East European Conference on Advances in Databases and Information Systems (**ADBIS'10**), Lecture Notes in Computer Science 6295: 164-175, Springer, Novi Sad, September 2010.

▪ A. Dimovski and R. Lazic. *Assume-Guarantee Software Verification Based on Game Semantics*. In Proceedings of the 8th International Conference on Formal Engineering Methods (**ICFEM'06**), Lecture Notes in Computer Science 4260: 529-548, Springer, Macao, November 2006.

▪ A. Dimovski, D. R. Ghica and R. Lazic. *A Counterexample-Guided Refinement Tool for Open Procedural Programs*. In Proceedings of the 13th International SPIN Workshop on Model Checking of Software (**SPIN'06**), Lecture Notes in Computer Science 3925: 288-292, Springer, Vienna, March 2006.

▪ A. Dimovski, D. R. Ghica and R. Lazic. *Data-Abstraction Refinement: A Game Semantic Approach*. In Proceedings of the 12th International Static Analysis Symposium (**SAS'05**), Lecture Notes in Computer Science 3672: 102-117, Springer, London, September 2005.

▪ A. Dimovski and R. Lazic. *Software Model Checking Based on Game Semantics and CSP*. In Proceedings of the 4th International Workshop on Automated Verification of Critical Systems (**AVoCS'04**), Electronic Notes in Theoretical Computer Science 128(6): 105-125, Elsevier, London, September 2004.

▪ A. Dimovski and R. Lazic. *CSP Representation of Game Semantics for Second-order Idealized Algol*. In Proceedings of the 6th International Conference on Formal Engineering Methods (**ICFEM'04**), Lecture Notes in Computer Science 3308: 146-161, Springer, Seattle, November 2004.

▪ A. Dimovski and D. Gligoroski. *Generating highly nonlinear Boolean functions using a Genetic algorithm*. In Proceedings of 1st Balcan Conference in Informatics (**BCI'03**), Thessaloniki, November 2003.

▪ A. Dimovski and D. Gligoroski. *Attacks On the Transposition Ciphers using Optimization Heuristics*. In Proceedings of the XXXVIII International Scientific Conference on Information, Communication, Energy Systems and Technologies (**ICEST'03**), Sofia, October 2003.

22th International Conference on Fundamental Approaches to Software Engineering (FASE'19), Prague 2019.

21nd International Conference on Fundamental Approaches to Software Engineering (FASE'18), Thessaloniki 2018.

8th International Symposium on Games, Automata, Logics and Formal Verification (GandALF'17), Rome 2017.

20th International Conference on Fundamental Approaches to Software Engineering (FASE'17), Uppsala 2017.

21st International Symposium on Formal Methods (FM'16), Limassol, November 2016.

23rd International SPIN Symposium on Model Checking of Software (SPIN'16), Eindhoven, April 2016.

22nd International SPIN Symposium on Model Checking of Software (SPIN'15), Stellenbosch, August 2015.

29th European Conference on Object-Oriented Programming (ECOOP'15), Prague, July 2015.

10th International Workshop on Security and Trust Management (STM'14), Wroclaw, September 2014.

4th International Symposium on Games, Automata, Logics and Formal Verification (GandALF'13), Borca di Cadore, August 2013.

12th International Conference on Software Composition (SC'13), Budapest, June 2013.

3rd International Symposium on Games, Automata, Logics and Formal Verification (GandALF'12), Naples, September 2012.

5th Balkan Conference in Informatics (BCI'12), Novi Sad, September 2012.

8th International Conference on Integrated Formal Methods (iFM'10), Nancy, October 2010.

14th East European Conference on Advances in Databases and Information Systems (ADBIS'10), Novi Sad, September 2010.

8th International Conference on Formal Engineering Methods (ICFEM 2006), Macao, November 2006.

22nd British Colloquium for Theoretical Computer Science (BCTCS 2006), Swansea University, April 2006.

13th International SPIN Workshop on Model Checking of Software (SPIN 2006), Vienna, March 2006.

5th International Workshop on Automated Verification of Critical Systems (AVoCS 2005), University of Warwick, September 2005.

1st Workshop on Games for Logic and Programming Languages (GALOP 2005), Edinburgh, April 2005.

21st British Colloquium for Theoretical Computer Science (BCTCS 2005), Nottingham, March 2005.

6th International Conference on Formal Engineering Methods (ICFEM 2004), Seattle, November 2004.

4th International Workshop on Automated Verification of Critical Systems (AVoCS 2004), London, September 2004.

Doctoral Symposium - 4th International Conference on Integrated Formal Methods (IFM 2004), Canterbury, Kent, April 2004.

ANNEXES

Awards and Honors

ORS (Overseas Research Students) Award. 09/2004--09/2006. Department of Computer Science, University of Warwick, UK.

EPSRC (Engineering and Physical Sciences Research Council) Studentship. 09/2003--09/2006. Department of Computer Science, University of Warwick, UK.

Graduation with Distinction, GPA 9.73/10. 12/2000. Institute of Informatics, Faculty of Natural Sciences, Sts Cyril and Methodius University, Skopje, MKD.