

Dilian Gurov's CV

Professional preparation

- **PhD** in Computer Science, 1998, Dept. of Computer Science, University of Victoria, Canada.
- **Dipl. Ing.** in Computer Science and Engineering, 1989, Department of Computer Science and Engineering, Higher Institute of Mechanical and Electrical Engineering, Sofia, Bulgaria.

Appointments

- **Present appointment:** University lecturer at the School of Computer Science and Communication at KTH, since January 2006. Permanent, full-time position. **Docent** level awarded in March 2007.
- March 2002 - December 2005, University lecturer at the School for Information and Communication Technology at KTH. Permanent full-time position.
- September 1997 - February 2002, Senior researcher at SICS. Permanent full-time position.
- June 1990 - December 1993, Assistant lecturer at the Department of Computer Science and Engineering, Technical University of Sofia, Bulgaria. Permanent full-time position.

Doctoral and postdoctoral supervision

I am currently the main supervisor for:

- **Christian Lidström**, since February 2019.

In the past, I have been the main supervisor for:

- **Irem Aktug**, PhD 2008 (Lic.Tech. 2006).
- **Siavash Soleimanifard**, PhD 2014 (Lic.Tech. 2012).
- **Pedro de Carvalho Gomes**, PhD 2015 (Lic.Tech. 2012).

I am currently also hosting one postdoc:

- **Predrag Filipovikj**, since August 2019.

Networks in academia and industry

I have tight, ongoing collaborations with the following researchers:

- **Marieke Huisman**, University of Twente, Holland.
- **Reiner Hähnle**, TU Darmstadt, Germany.
- **Mattias Nyberg**, Scania AB and KTH.
- **Valentin Goranko**, Stockholm University, Sweden.

and a less tight but wide network in Europe in the field of **Formal Methods**.

Other merits of relevance

Service

- PC co-chair and proceedings co-editor for FoVeOOS 2011.
- Local arrangements chair for GameSec 2019, Workshops chair for CSL 2017.
- PC member for iFM 2019, FASE 2019, FASE 2018, FASE 2017, iFM 2016, FMSPLE 2015, UaESMC 2014, WING 2014, FMSPLE 2013, ACM SAC 2010 SVT Track, FoVeOOS 2010, PoFI 2010, and SAVCBS 2009.
- Co-organizer of the IsoLA 2018 track on *Formal Methods in Industrial Practice*, 5-9 November 2018, Limassol, Cyprus, and the IsoLA 2016 Track 2 on *Static and Runtime Verification*, 10-14 October 2016, Corfu, Greece.
- Co-organizer of the Lorentz Center workshop on *Verification of Concurrent and Distributed Software*, 14-18 September 2015, Leiden, The Netherlands.
- Co-organizer of the Dagstuhl Seminar on *Principles of Contract Languages*, to be held in November 2020 in Schloss Dagstuhl, Germany.

Invited talks

- *Program Models for Compositional Verification*, invited talk at ICE 2019, Lyngby, Denmark.
- *Contracts for Software Verification*, invited talk at the KeY Symposium 2018, Gothenburg, Sweden.
- *Modular Software Verification*, invited talk at the 1st International Conference on Recent Trends and Applications in Computer Science and Information Technology 2014, Tirana, Albania.
- *Modular Verification of Temporal Safety Properties of Procedural Programs*, an invited tutorial given at the 9th International Conference on Software Engineering and Formal Methods 2011, Montevideo, Uruguay.

Prizes

- The **KTH CSC Tie Prize** 2011 for meritorious deed (unconventional teaching).
- **EASST Award** for Best Software Science Paper, given at ETAPS 2004 (see Publications).
- The **Charles S. Humphrey Graduate Student Award** for 1996/97, given at the University of Victoria to Highly Qualified Individuals in the Exact Sciences.

List of publications

<http://www.csc.kth.se/~dilian/publications.html>

Selected publications

- *Practical Abstractions for Automated Verification of Shared-Memory Concurrency*, Wytse Oortwijn, Dilian Gurov, and Marieke Huisman. In Proceedings of VMCAI'20, Lecture Notes in Computer Science, vol. 11990, pp. 401-425, 2020.

- *Specification and Verification of Synchronization with Condition Variables*, Pedro de Carvalho Gomes, Dilian Gurov, Marieke Huisman, and Cyrille Artho. **Science of Computer Programming**, vol. 163, pp. 174-189, 2018.
- *Formal Verification in Automotive Industry: Enablers and Obstacles*, Mattias Nyberg, Dilian Gurov, Christian Lidström, Andreas Rasmusson, and Jonas Westman. In Proceedings of IsoLA'18, Lecture Notes in Computer Science, vol. 11247, pp. 139-158, 2018.
- *Formal Architecture Modeling of Sequential Non-recursive C Programs*, Jonas Westman, Mattias Nyberg, Joakim Gustavsson, and Dilian Gurov. **Science of Computer Programming**, vol. 146, pp. 2-27, 2017.
- *Deductive Functional Verification of Safety-Critical Embedded C-Code: An Experience Report*, Dilian Gurov, Christian Lidström, Mattias Nyberg, and Jonas Westman. In Proceedings of FMICS-AVOCS'17, Lecture Notes in Computer Science, vol. 10471, pp. 3-18, 2017.
- *Algorithmic Verification of Procedural Programs in the Presence of Code Variability*, Siavash Soleimanifard, and Dilian Gurov. **Science of Computer Programming**, vol. 127, pp. 76-102, 2016.
- *Provably Correct Control Flow Graphs from Java Bytecode Programs with Exceptions*, Afshin Amighi, Pedro de Carvalho Gomes, Dilian Gurov, and Marieke Huisman. **Software Tools for Technology Transfer**, vol. 18, no. 6, pp. 653-684, 2016.
- *Procedure-Modular Specification and Verification of Temporal Safety Properties*, Siavash Soleimanifard, Dilian Gurov, and Marieke Huisman. **Software and Systems Modeling**, vol. 14, num. 1, pp. 83-100, 2015.
- *Reducing Behavioural to Structural Properties of Programs with Procedures*, Dilian Gurov, and Marieke Huisman. **Theoretical Computer Science**, vol. 480, pp. 69-103, 2013.
- *Provably Correct Runtime Monitoring*, Irem Aktug, Mads Dam, and Dilian Gurov. **Journal of Logic and Algebraic Programming**, vol. 78, pp. 304-339, 2009.
- *Compositional Verification of Sequential Programs with Procedures*, Dilian Gurov, Marieke Huisman, and Christoph Sprenger. **Journal of Information and Computation**, vol. 206, no. 7, pp. 840-868, 2008.
- *Checking Absence of Illicit Applet Interactions: A Case Study*, Marieke Huisman, Dilian Gurov, Christoph Sprenger, and Gennady Chugunov. In Proceedings of: FASE'04, Lecture Notes in Computer Science, vol. 2984, pp. 84-98. Winner of the **EASST Award for Best Software Science Paper**, 2004.
- *A Verification Tool for Erlang*, Lars-Åke Fredlund, Dilian Gurov, Thomas Noll, Mads Dam, Thomas Arts, and Gennady Chugunov. **Software Tools for Technology Transfer**, vol. 4, pp. 405-420, 2003.
- *μ -Calculus with Explicit Points and Approximations*, Mads Dam, and Dilian Gurov. **Journal of Logic and Computation**, vol. 12, no. 2, pp. 43-57, 2002.
- *A Note on Negative Tagging for Least Fixed-Point Formulae*, Dilian Gurov, and Bruce Kapron. **RAIRO Theoretical Informatics and Applications**, vol. 33, pp. 383-392, 1999.
- *Toward Parametric Verification of Open Distributed Systems*, Mads Dam, Lars-Åke Fredlund, and Dilian Gurov. In book: *Compositionality: The Significant Difference*, Lecture Notes in Computer Science, vol. 1536, pp. 150-185, 1998.