RNDr. Tomáš Balyo Ph.D.

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Education

- 2010 – 2014: Ph.D. student at the *Faculty of Mathematics and Physics, Charles University in Prague*. Branch of study: *Theoretical Computer Science*. Supervisor: *prof. RNDr. Roman Barták, Ph.D*. Dissertation: *Modeling and Solving Problems Using SAT Techniques*.
- 2010: Master of Theoretical Computer Science, *Faculty of Mathematics and Physics, Charles University in Prague*. Supervisor: *RNDr. Pavel Surynek, Ph.D*. Diploma Thesis: *Solving Boolean Satisfiability Problems*.
- 2008: Bachelor of Science in General Computer Science, *Faculty of Mathematics and Physics, Charles University in Prague*. Supervisor: *RNDr. Pavel Surynek, Ph.D*. Bachelor's Thesis: Efficient SAT Solver

Summer Schools and Internships

- Internship (3 months) at FMV, JKU with Armin Biere, 2013, Linz, Austria
- Second International SAT/SMT Solver Summer School, 2012, Trento, Italy
- Madalgo Summer School 2012, Aarhus University, Denmark
- First International SAT/SMT Solver Summer School, 2011, MIT, Cambridge, MA, USA

Selected Publications (full list at: http://ktiml.mff.cuni.cz/~balyo/index.php?page=Research)

- Tomas Balyo, Andreas Froehlich, Marijn Heule and Armin Biere: *Everything You Always Wanted to Know About Blocked Sets (But Were Afraid to Ask)*, Accepted for SAT 2014
- Tomas Balyo: *Relaxing the Relaxed Exist-Step Parallel Planning Semantics*, Proceedings of ICTAI 2013, pp 865-871, Washington, DC, USA
- Martin Babka, Tomas Balyo, Ondrej Cepek, Stefan Gursky, Petr Kucera, Vaclav Vlcek: *Complexity issues related to propagation completeness*, Artificial Intelligence, volume 206, pp. 19-34, 2013, journal
- Tomas Balyo, Roman Bartak, Pavel Surynek: *On Improving Plan Quality via Local Enhancements*, Proceedings of SOCS 2012, Niagara Falls, Ontario, Canada
- Tomas Balyo, Stefan Gursky, Petr Kucera, Vaclav Vlcek: *On Hierarchies over the SLUR Class*, Proceedings of ISAIM 2012, Fort Lauderdale, Florida, USA

Work Experience

- 2012 – Now: Founder and developer of the FreeLunch open source Java planning library.
- 2010 June – September: J2EE developer, Orchitech Solutions.
- 2008 September – 2009 August: Junior Java developer, Siemens IT Solutions and Services.

Skills

- Languages: Hungarian, Slovak, English
- Programming Languages: Java, C, C++, C#, Pascal

Professional Interests: Satisfiability Solving and Applications, MaxSAT, QBF, Boolean Functions, Classical Automated Planning, SAT Modelling, Complexity Theory, Parallelization.