Curriculum Vitae

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1 Education

B.Sc. (Electrical Engineering), 1999, Vilnius Gediminas Technical University. M.Sc. (Tech.), 2001, D.Sc. (Tech.), 2008, Helsinki University of Technology.

2 Employment

01.02.2014–Now: Random jobs: House building, gardening, writing embedded software,

helping others with computers.

01.02.2013-31.01.2014: Faculty of Informatics at the University of Lugano,

Via Giuseppe Buffi 13, CH-6904 Lugano, Switzerland.

01.09.2011-31.12.2012: DEMO, École Nationale Supérieure des Mines de Saint-Étienne,

158 cours Fauriel, 42023 Saint-Étienne, CEDEX2, France.

01.09.2008–31.08.2009: Department of Neurobiology at the University of California, Los Angeles,

73-235 CHS, Los Angeles, CA 90095-1763.

01.05.2000–31.07.2008: Faculty of Information and Natural Sciences at Helsinki University of Technology,

P.O.Box 5400 (Konemiehentie 2), FI-02015, Finland.

3 Publications

- 1. D. Boscaini, R. Girdziušas, and M. M. Bronstein. Coulomb shapes: using electrostatic forces for deformation-invariant shape representation. In *Eurographics W. 3D Object Retrieval*, 2014. https://diglib.eg.org/handle/10.2312/3dor.20141044.009-015.
- 2. R. Girdziušas, J. Janusevskis, and R. Le Riche. On integration of multi-point improvements. In NIPS W. Bayesian Opt. Dec. Making, 2012. http://www.emse.fr/~leriche/integ_multiEI_nips2012_final.pdf.
- 3. R. Le Riche, R. Girdziušas, and J. Janusevskis. A study of asynchronous budgeted optimization. In NIPS W. Bayesian Opt. Dec. Making, 2012. http://www.emse.fr/~leriche/synchro_asynchro_final.pdf.
- 4. R. Girdziušas, R. Le Riche, F. Viale, and D. Ginsbourger. Parallel budgeted optimization applied to the design of an air duct. 2012. http://hal.archives-ouvertes.fr/hal-00723427.
- 5. R. Le Riche, R. Girdziušas, D. Villanueva, G. Picard, and D. Ginsbourger. Squaring the engineering optimization circle: Distributed global optimization algorithms for computationally expensive problems. 2012. http://www.emse.fr/~leriche/rio2012_LeRiche.pdf.
- J. Janusevskis, R. Le Riche, D. Ginsbourger, and R. Girdziušas. Expected improvements for the asynchronous parallel global optimization of expensive functions: Potentials and challenges. In *LNCS*, volume 7219, pages 413–418, 2012.
- 7. R. Girdziušas and D. Ringach. The Jacobian singularity in the Thomson problem. Unpublished. 2009. http://aabbtree77.github.io/pdfs/ucla2009.pdf.

- 8. R. Girdziušas. Stability and Inference in Discrete Diffusion Scale-Spaces. PhD thesis, Helsinki Univ. of Tech. https://aaltodoc.aalto.fi/handle/123456789/2999. Advisors: E. Oja and J. Laaksonen (Helsinki Univ. of Tech.). External examiners: S. Siltanen (Tampere Univ. of Tech.) and K. Ruotsalainen (Univ. of Oulu). Opponents: S. Siltanen and A. Gotchev (Tampere Univ. of Tech.).
- R. Girdziušas and J. Laaksonen. When is a discrete diffusion a scale-space? In ICCV, 2007. http://dx.doi.org/10.1109/ICCV.2007.4408895.
- 10. R. Girdziušas and J. Laaksonen. How marginal likelihood inference unifies entropy, correlation and SNR-based stopping in nonlinear diffusion scale-spaces. In *LNCS*, volume 4843, pages 811–820, 2007.
- 11. R. Girdziušas and J. Laaksonen. Jacobi alternative to Bayesian evidence maximization. In *LNCS*, volume 3697, pages 247–252, 2005.
- 12. R. Girdziušas and J. Laaksonen. Use of input deformations with Brownian motion. In *LNCS*, volume 3686, pages 219–228, 2005.
- 13. R. Girdziušas and J. Laaksonen. Optimal stopping and constraints for diffusion models of signals with discontinuities. In *LNAI*, volume 3720, pages 576–583, 2005.
- 14. R. Girdziušas and J. Laaksonen. Optimal ratio of Lamé moduli with application to motion of Jupiter storms. In *LNCS*, volume 3540, pages 1096–1106, 2005.
- 15. R. Girdziušas and J. Laaksonen. Gaussian processes of nonlinear diffusion filtering. In *IJCNN*, pages 1012–1017, 2005. http://dx.doi.org/10.1109/IJCNN.2005.1555991.
- 16. R. Girdziušas and J. Laaksonen. Gaussian process regression with fluid hyperpriors. In *LNCS*, volume 3316, pages 567–572, 2004.
- 17. M. Aksela, R. Girdziušas, J. Laaksonen, E. Oja, and J. Kangas. Methods for adaptive combination of classifiers. *IJDAR*, 6(1):23–41, 2003.
- 18. M. Aksela, R. Girdziušas, J. Laaksonen, E. Oja, and J. Kangas. Class-confidence critic combining. In *IWFHR*, pages 201–206, 2002. http://dx.doi.org/10.1109/IWFHR.2002.1030909.
- 19. R. Girdziušas. Discriminative online recognition of isolated handwritten characters. In *Master's thesis*, 2001.
- 20. R. Girdziušas and J. Laaksonen. Multilayer perceptron approach to non-rigid image matching. In *ICONIP*, volume 1, pages 491–496, 2001.

4 Talks

- Presentations: ICONIP 2001, 2004; ICAPR 2005; ICANN 2005; OMD2 meetings (Paris 2011, 2012).
- Posters: SCIA 2005; IJCNN 2005; ECML 2005; ICCV 2007; ACCV 2007.
- Invited talk at the DIKU group, the University of Copenhagen, 2008.

5 Awards

01.09.1999–01.06.2000: Nokia scholarship (Natalia Kantola, Robertas Tamulevičius).

01.01.2002-01.07.2006: ComMIT grant (postgraduate studies).

09.11.2005–09.15.2005: ICANN travel grant.

07.01.2006–12.01.2006: HUT scholarship.

01.22.2008-01.24.2008: Travel grant (Prof. Mads Nielsen).

04.03.2008: Doctoral thesis award: "Pass with Distinction".

6 Recommendation Letters

- Prof. Erkki Oja, Konemiehentie 2, P.O. Box 5400, 02015 HUT, Finland. Email: Erkki.Oja@hut.fi, phone: +358-9-451 3265, fax: +358 9 451 3277.
- Doc. Jorma Laaksonen, Konemiehentie 2, P.O. Box 5400, 02015 HUT, Finland. Email: Jorma Laaksonen@hut.fi, phone: +358-9-451 3269, fax: +358 9 451 3277.
- Prof. Dario Ringach, Dep. of Neurobiology, UCLA, Los Angeles, CA 90095-1563. Email: dario@ucla.edu, phone: +310 825 6606.
- Doc. Rodolphe Le Riche, DEMO, 158 cours Fauriel, 42023 Saint-Étienne, CEDEX 2. Email: leriche@emse.fr, phone: +336 31 262 678.
- Assist. Prof. Michael M. Bronstein, SI-109, Via Giuseppe Buffi 13, 6904, Lugano, Switzerland. Email: michael.bronstein@usi.ch, phone: +41 58 666 4120.

7 Code on github.com

C, avr-gcc: https://github.com/aabbtree77/adast

https://github.com/aabbtree77/atmega8-ssd1306-ds18b20-dht22 https://github.com/aabbtree77/digispark-attiny85-command-line

Python: https://github.com/aabbtree77/esp32-vpn

 $3D: \hspace{1.5cm} \texttt{https://github.com/aabbtree77/twinpeekz}$

https://github.com/aabbtree77/twinpeekz2

8 Bug Reports/Selected Activity on github.com

Ported C++ code from Windows to Linux: Max1412/Graphics2/issues/24

Fixed uint vs. uint32 bug with RenderDoc: go-gl/gl/issues/128

Fixed screen tearing due to Nvidia VSync: godlikepanos/anki-3d-engine/issues/59

Provided a test for deep vs. shallow copying: polydojo/jispy/issues/1

9 Additional Information

Date of birth: 30.12.1977.

Citizenship: Lithuanian (Lithuania, European Union).

Languages: English (7/10), Russian (8/10), Lithuanian (9/10).

Driver's licence: B (U.S.-only experience, 2008-2009). Highest chess Elo: 2242 (Blitz on lichess.org, 27.04.2023).

Erdös number: 5 (P. Erdös–B. Bollobas–H. Mannila–E. Bingham–E. Oja).

4 (P. Erdös-A. M. Odlyzko-L. J. Guibas-M. M. Bronstein).

Personal heroes: Sergej Mavrodi, Satoshi Nakamoto.