
Top 30 cited works of Evolutionary Robotics - work in progress -

Bastian Lang

May 13, 2015

REFERENCES

- [1] Gianluca Baldassarre, Vito Trianni, Michael Bonani, Francesco Mondada, Marco Dorigo, and Stefano Nolfi. Self-organized coordinated motion in groups of physically connected robots. *Systems, Man, and Cybernetics, Part B: Cybernetics, IEEE Transactions on*, 37(1):224–239, 2007.
- [2] Wolfgang Banzhaf, Peter Nordin, and Markus Olmer. Generating adaptive behavior using function regression within genetic programming and a real robot. In *2nd International Conference on Genetic Programming, Stanford*, 1997.
- [3] Dave Cliff, Phil Husbands, and Inman Harvey. Explorations in evolutionary robotics. *Adaptive behavior*, 2(1):73–110, 1993.
- [4] Jeff Clune, Kenneth O Stanley, Robert T Pennock, and Charles Ofria. On the performance of indirect encoding across the continuum of regularity. *Evolutionary Computation, IEEE Transactions on*, 15(3):346–367, 2011.
- [5] Carlos A Coello Coello. Evolutionary multi-objective optimization: a historical view of the field. *Computational Intelligence Magazine, IEEE*, 1(1):28–36, 2006. 645.
- [6] Sevan G Ficici, Richard A Watson, and Jordan B Pollack. Embodied evolution: A response to challenges in evolutionary robotics. In *Proceedings of the eighth European workshop on learning robots*, pages 14–22. Citeseer, 1999.

- [7] Dario Floreano, Phil Husbands, and Stefano Nolfi. Evolutionary robotics. In *Springer handbook of robotics*, pages 1423–1451. Springer, 2008.
- [8] Dario Floreano, Stefano Nolfi, and Francesco Mondada. Competitive co-evolutionary robotics: From theory to practice. In *Proceedings of the fifth international conference on simulation of adaptive behavior, From Animals to Animats 5*, volume 4, pages 515–524. MIT Press, 1998.
- [9] Dario Floreano and Joseba Urzelai. Evolutionary robotics: The next generation. Technical report, AAI Books, 2000.
- [10] Frederic Gruau and Kameel Quatramaran. Cellular encoding for interactive evolutionary robotics. In *Fourth European Conference on Artificial Life*, pages 368–377. MIT Press, 1997.
- [11] Inman Harvey, Phil Husbands, Dave Cliff, Adrian Thompson, and Nick Jakobi. Evolutionary robotics: the sussex approach. *Robotics and autonomous systems*, 20(2):205–224, 1997.
- [12] Inman Harvey, Philip Husbands, Dave Cliff, et al. *Issues in evolutionary robotics*. School of Cognitive and Computing Sciences, University of Sussex, 1992.
- [13] Nick Jakobi, Phil Husbands, and Inman Harvey. Noise and the reality gap: The use of simulation in evolutionary robotics. In *Advances in artificial life*, pages 704–720. Springer, 1995.
- [14] Nadav Kashtan and Uri Alon. Spontaneous evolution of modularity and network motifs. *Proceedings of the National Academy of Sciences of the United States of America*, 102(39):13773–13778, 2005.
- [15] M Anthony Lewis, Andrew H Fagg, and Alan Solidum. Genetic programming approach to the construction of a neural network for control of a walking robot. In *Robotics and Automation, 1992. Proceedings., 1992 IEEE International Conference on*, pages 2618–2623. IEEE, 1992.
- [16] Hod Lipson. Principles of modularity, regularity, and hierarchy for scalable systems. *Journal of Biological Physics and Chemistry*, 7(4):125, 2007.
- [17] Henrik Hautop Lund, Orazio Miglino, Luigi Pagliarini, Aude Billard, and Auke Ijspeert. Evolutionary robotics-a children’s game. In *Evolutionary Computation Proceedings, 1998. IEEE World Congress on Computational Intelligence., The 1998 IEEE International Conference on*, pages 154–158. IEEE, 1998.
- [18] Jean-Arcady Meyer, Phil Husbands, and Inman Harvey. Evolutionary robotics: A survey of applications and problems. In *Evolutionary Robotics*, pages 1–21. Springer, 1998.
- [19] J. B. Mouret and S. Doncieux. Encouraging behavioral diversity in evolutionary robotics: An empirical study. *Evol. Comput.*, 20(1):91–133, March 2012.

- [20] Andrew L Nelson, Gregory J Barlow, and Lefteris Doitsidis. Fitness functions in evolutionary robotics: A survey and analysis. *Robotics and Autonomous Systems*, 57(4):345–370, 2009.
- [21] Stefano Nolfi. Evolutionary robotics: Exploiting the full power of self-organization. *Connection Science*, 10(3-4):167–184, 1998.
- [22] Bruno Sareni and Laurent Krahenbuhl. Fitness sharing and niching methods revisited. *Evolutionary Computation, IEEE Transactions on*, 2(3):97–106, 1998.
- [23] William Irvin Sellers and Phillip Lars Manning. Estimating dinosaur maximum running speeds using evolutionary robotics. *Proceedings of the Royal Society of London B: Biological Sciences*, 274(1626):2711–2716, 2007.
- [24] Kenneth O Stanley. Compositional pattern producing networks: A novel abstraction of development. *Genetic programming and evolvable machines*, 8(2):131–162, 2007.
- [25] Kenneth O Stanley, David B D’Ambrosio, and Jason Gauci. A hypercube-based encoding for evolving large-scale neural networks. *Artificial life*, 15(2):185–212, 2009.
- [26] Kenneth O Stanley and Risto Miikkulainen. A taxonomy for artificial embryogeny. *Artificial Life*, 9(2):93–130, 2003.
- [27] Joanne Walker, Simon Garrett, and Myra Wilson. Evolving controllers for real robots: A survey of the literature. *Adaptive Behavior*, 11(3):179–203, 2003.
- [28] Juan Cristóbal Zagal, Javier Ruiz-del Solar, and Paul Vallejos. Back to reality: Crossing the reality gap in evolutionary robotics. In *IAV 2004 the 5th IFAC Symposium on Intelligent Autonomous Vehicles, Lisbon, Portugal*, 2004.
- [29] Victor Zykov, Efsthios Mytilinaios, Bryant Adams, and Hod Lipson. Robotics: Self-reproducing machines. *Nature*, 435(7039):163–164, 2005.
- [30] Viktor Zykov, Efsthios Mytilinaios, Mark Desnoyer, and Hod Lipson. Evolved and designed self-reproducing modular robotics. *Robotics, IEEE Transactions on*, 23(2):308–319, 2007.