

## Список литературы

- [1] L. Panait and S. Luke, “A Comparison of Two Competitive Fitness Functions,” 2002. Submitted to GECCO 2002.
- [2] P. Angeline and J. Pollack, “Competitive environments evolve better solutions for complex tasks,” pp. 264–270.
- [3] D. Cliff and G. F. Miller, “Tracking the Red Queen: Measurements of adaptive progress in co-evolutionary simulations,” in *Proceedings of the Third European Conference on Artificial Life*, pp. 200–218. Springer-Verlag, 1995.
- [4] R. Eriksson and B. Olsson, “Cooperative Coevolution in Inventory Control Optimisation,” in *Proceedings of the Third International Conference on Artificial Neural Networks and Genetic Algorithms*, G. Smith, N. Steele, and R. Albrecht, eds. Springer, University of East Anglia, Norwich, UK, 1997.
- [5] S. Ficici and J. Pollack, “A Game-Theoretic Approach to the Simple Coevolutionary Algorithm,” pp. 467–476.
- [6] S. Ficici and J. Pollack, “Effects of Finite Populations on Evolutionary Stable Strategies,” pp. 880–887.
- [7] S. Ficici and J. Pollack, “Game-Theoretic Investigation of Selection Methods Used in Evolutionary Algorithms,” pp. 880–887.
- [8] S. Ficici and J. Pollack, “Challenges in Coevolutionary Learning: Arms-Race Dynamics, Open-Endedness, and Mediocre Stable States,” in *Proceedings of the Sixth International Conference on Artificial Life*, A. et al, ed., pp. 238–247. MIT Press, Cambridge, MA, 1998.
- [9] S. Ficici and J. Pollack, “Pareto Optimality in Coevolutionary Learning,” tech. rep., Brandeis University, 2001.
- [10] D. Hillis, “Co-Evolving parasites improve simulated Evolution as an optimization procedure,” *Artificial Life II, SFI Studies in the Sciences of Complexity* **10** (1991) 313–324.
- [11] P. Husbands and F. Mill, “Simulated coevolution as the mechanism for emergent planning and scheduling,” in *Proceedings of the Fourth International Conference on Genetic Algorithms*, R. Belew and L. Booker, eds., pp. 264–270. Morgan Kaufmann, 1991.
- [12] P. Husbands, “Distributed coevolutionary genetic algorithms for multi-criteria and multi-constraint optimisation,” in *Evolutionary Computing, AISB Workshop for Selected Papers*, pp. 150–165. Springer-Verlag, 1994.
- [13] C. Rosin and R. Belew, “New methods for competitive coevolution,” *Evolutionary Computation* **5** no. 1, (1996) 1–29.
- [14] H. Juillé and J. Pollak, “Co-evolving Interwined Spirals,” pp. 461–468.
- [15] A. Lubberts and R. Miikkulainen, “Co-Evolving a Go-Playing Neural Network,” in *Coevolution: Turning Adaptive Algorithms upon Themselves, (Birds-on-a-Feather Workshop, Genetic and Evolutionary Computation Conference)*. 2001.
- [16] D. E. Moriarty and R. Mikkulainen, “Discovering Complex Othello Strategies through Evolutionary Neural Networks,” *Connection Science* **7** no. 3, (1995) 105–209.
- [17] D. Moriarty and R. Miikkulainen, “Forming neural networks through efficient and adaptive coevolution,” *Evolutionary Computation* **5** no. 4, (1997) 373–399.
- [18] J. Paredis, “Steps towards co-evolutionary classification networks,” in *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, R. A. Brooks and P. Maes, eds., pp. 359–365. MIT Press, 1994.

- [19] M. Potter and K. De Jong, "Cooperative Coevolution: An Architecture for Evolving Coadapted Subcomponents," *Evolutionary Computation* **8** no. 1, (2000) 1–29.
- [20] M. Potter and K. De Jong, "A Cooperative CoEvolutionary Approach to Function Optimization," pp. 249–257.
- [21] M. Potter and K. De Jong, "Evolving Neural Networks with Collaborative Species," pp. 307–317.
- [22] M. Potter, *The Design and Analysis of a Computational Model of Cooperative CoEvolution*. PhD thesis, George Mason University, Fairfax, Virginia, 1997.
- [23] M. Potter and K. De Jong, "The Coevolution of Antibodies for Concept Learning," pp. 530–539.
- [24] C. Rosin and R. Belew, "New Methods for Competitive Coevolution," *Evolutionary Computation* **5** no. 1, (1997) 1–29.
- [25] C. Rosin and R. Belew, "Methods for competitive co-evolution: Finding opponents worth beating," pp. 373–380.
- [26] J. Paredis, "Coevolutionary Computation," *Artificial Life Journal* **2** no. 3, (1996) .
- [27] D. Schlierkamp-Voosen and H. Mühlenbein, "Strategy Adaptation by Competing Subpopulations," pp. 199–108.
- [28] J. Pollack and A. Blair, "Coevolution in the successful learning of backgammon strategy," *Machine Learning* **32** no. 3, (1998) 225–240.
- [29] K. Sims, "Evolving Three-Dimensional Morphology and Behaviour," in *Evolutionary Design by Computers*, P. Bentley, ed. Morgan Kaufmann, 1999.
- [30] J. Pollack, A. Blair, and M. Land, "Coevolution of a Backgammon Player," in *Artificial Life V*. MIT Press, 1997.
- [31] H. Mayer, "Symbiotic Coevolution of Artificial Neural Networks and Training Data Sets," pp. 511–520.
- [32] C. Rosin, *Coevolutionary Search Among Adversaries*. PhD thesis, University of California, San Diego, 1997.
- [33] R. P. Wiegand, W. Liles, and K. De Jong, "Analyzing Cooperative Coevolution with Evolutionary Game Theory,". (To appear).
- [34] R. P. Wiegand, "Applying Diffusion to a Cooperative Coevolutionary Model," pp. 560–569.
- [35] R. P. Wiegand, W. Liles, and K. De Jong, "An Empirical Analysis of Collaboration Methods in Cooperative Coevolutionary Algorithms," pp. 1235–1242.
- [36] G. Fogel, P. Andrews, and D. Fogel, "On the instability of evolutionary stable strategies in small populations," *Ecological Modeling* **109** (1998) 283–294.
- [37] D. Fogel, G. Fogel, and P. Andrews, "On the instability of evolutionary stable strategies," *BioSystems* **44** (1995) 135–152.
- [38] D. Fogel and G. Fogel, "Evolutionary stable strategies are not always stable under evolutionary dynamics," in *Proceedings of the Fourth Annual Conference on Evolutionary Programming*, J. R. McDonnell, R. G. Reynolds, and D. Fogel, eds., pp. 565–577. MIT Press, Cambridge, MA, 1995.
- [39] S. Kauffman, "Coevolution to the edge of chaos: coupled fitness landscapes, poised states, and coevolutionary avalanches," in *Artificial Life II: Studies in the Sciences of Complexity*, C. Langton, C. Taylor, J. Farmer, and S. Rasmussen, eds., vol. X, pp. 325–369. Addison-Wesley, 1991.
- [40] L. Pagie and H. P., "Information integration and red queen dynamics in coevolutionary optimization," pp. 1260–1267.

- [41] L. Pagie and M. Mitchell, “A comparison of evolutionary and coevolutionary search,” pp. 20–25.
- [42] L. Pagie and P. Hogeweg, “Evolutionary Consequences of coevolving targets,” *Evolutionary Computation* **5** no. 4, (1997) 401–418.
- [43] L. Pagie, *Coevolutionary dynamics: information integration, speciation, and red queen dynamics*. PhD thesis, University of New Mexico, Santa Fe, NM, 1999.
- [44] R. Watson and J. Pollack, “Coevolutionary Dynamics in a Minimal Substrate,” pp. 702–709.
- [45] R. P. Wiegand, W. Liles, and K. De Jong, “Multi-Population Symmetric Game Dynamics,” 2001. In preparation.
- [46] H. Juillé, “Basic Concepts in Coevolution,” 2001. Presentation at GECCO-01 Coevolutionary Workshop.
- [47] S. Luke, “Genetic Programming Produced Competitive Soccer Softbot Teams for RoboCup97,” in *Genetic Programming 1998: Proceedings of the Third Annual Conference*, J. R. Koza, W. Banzhaf, K. Chellapilla, K. Deb, M. Dorigo, D. B. Fogel, M. H. Garzon, D. E. Goldberg, H. Iba, and R. Riolo, eds., pp. 214–222. Morgan Kaufmann, University of Wisconsin, Madison, Wisconsin, USA, July, 1998. <http://www.cs.gmu.edu/~sean/papers/robocupgp98.pdf>.
- [48] R. Axelrod, *The Evolution of Cooperation*. Basic Books, 1984.
- [49] D. Fogel, *Blondie24: Playing at the Edge of Artificial Intelligence*. Morgan Kaufmann, 2001.
- [50] K. Sims, “Evolving 3D Morphology and Behavior by Competition,” in *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, R. A. Brooks and P. Maes, eds., pp. 28–39. MIT Press, 1994.
- [51] C. Reynolds, “Competition, Coevolution and the Game of Tag,” in *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, R. A. Brooks and P. Maes, eds., pp. 59–69. MIT Press, 1994.
- [52] R. Smith and B. Gray, “Co-adaptive genetic algorithms: An example in Othello strategy,” Tech. Rep. TCGA 94002, University of Alabama, Department of Engineering Science and Mechanics, 1993.
- [53] Axelrod, “The Evolution of Strategies in the Iterated Prisoner’s Dilemma,” in *Genetic Algorithms and Simulated Annealing*, L. Davis, ed. Morgan Kaufmann, 1987.