

## Список литературы

- [1] Panait L, Luke S. 2002. A comparison of two competitive fitness functions. Submitted to GECCO 2002.
- [2] Angeline P, Pollack J Competitive environments evolve better solutions for complex tasks. pp. 264–270.
- [3] Cliff D, Miller GF. 1995 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.
- [4] Eriksson R, Olsson B. 1997 Cooperative coevolution in inventory control optimisation. In: Smith G, Steele N, Albrecht R (eds.), *Proceedings of the Third International Conference on Artificial Neural Networks and Genetic Algorithms*. University of East Anglia, Norwich, UK: Springer.
- [5] Ficici S, Pollack J A game-theoretic approach to the simple coevolutionary algorithm. pp. 467–476.
- [6] Ficici S, Pollack J Effects of finite populations on evolutionary stable strategies. pp. 880–887.
- [7] Ficici S, Pollack J Game-theoretic investigation of selection methods used in evolutionary algorithms. pp. 880–887.
- [8] Ficici S, Pollack J. 1998 Challenges in coevolutionary learning: Arms-race dynamics, open-endedness, and mediocre stable states. In: et al A (ed.), *Proceedings of the Sixth International Conference on Artificial Life*, pp. 238–247. Cambridge, MA: MIT Press.
- [9] Ficici S, Pollack J. 2001 Pareto optimality in coevolutionary learning. Tech. rep., Brandeis University.
- [10] Hillis D. 1991 Co-evolving parasites improve simulated evolution as an optimization procedure. *Artificial Life II, SFI Studies in the Sciences of Complexity* **10**, 313–324.
- [11] Husbands P, Mill F. 1991 Simulated coevolution as the mechanism for emergent planning and scheduling. In: Belew R, Booker L (eds.), *Proceedings of the Fourth International Conference on Genetic Algorithms*, pp. 264–270. Morgan Kaufmann.
- [12] Husbands P. 1994 Distributed coevolutionary genetic algorithms for multi-criteria and multi-constraint optimisation. In: *Evolutionary Computing, AISB Workshop for Selected Papers*, pp. 150–165. Springer-Verlag.
- [13] Rosin C, Belew R. 1996 New methods for competitive coevolution. *Evolutionary Computation* **5**, 1, 1–29.
- [14] Juillé H, Pollak J Co-evolving intertwined spirals. pp. 461–468.
- [15] Lubberts A, Mikkulainen R. 2001 Co-evolving a Go-playing neural network. In: *Coevolution: Turning Adaptive Algorithms upon Themselves, (Birds-on-a-Feather Workshop, Genetic and Evolutionary Computation Conference)*.
- [16] Moriarty DE, Mikkulainen R. 1995 Discovering complex othello strategies through evolutionary neural networks. *Connection Science* **7**, 3, 105–209.
- [17] Moriarty D, Mikkulainen R. 1997 Forming neural networks through efficient and adaptive coevolution. *Evolutionary Computation* **5**, 4, 373–399.
- [18] Paredis J. 1994 Steps towards co-evolutionary classification networks. In: Brooks RA, Maes P (eds.), *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, pp. 359–365. MIT Press.
- [19] Potter M, De Jong K. 2000 Cooperative coevolution: An architecture for evolving coadapted subcomponents. *Evolutionary Computation* **8**, 1, 1–29.

- [20] Potter M, De Jong K A cooperative coevolutionary approach to function optimization. pp. 249–257.
- [21] Potter M, De Jong K Evolving neural networks with collaborative species. pp. 307–317.
- [22] Potter M. 1997 *The Design and Analysis of a Computational Model of Cooperative CoEvolution*. Ph.D. thesis, George Mason University, Fairfax, Virginia.
- [23] Potter M, De Jong K The coevolution of antibodies for concept learning. pp. 530–539.
- [24] Rosin C, Belew R. 1997 New methods for competitive coevolution. *Evolutionary Computation* **5**, 1, 1–29.
- [25] Rosin C, Belew R Methods for competitive co-evolution: Finding opponents worth beating. pp. 373–380.
- [26] Paredis J. 1996 Coevolutionary computation. *Artificial Life Journal* **2**, 3.
- [27] Schlierkamp-Voosen D, Mühlenbein H Strategy adaptation by competing subpopulations. pp. 199–108.
- [28] Pollack J, Blair A. 1998 Coevolution in the successful learning of backgammon strategy. *Machine Learning* **32**, 3, 225–240.
- [29] Sims K. 1999 Evolving three-dimensional morphology and behaviour. In: Bentley P (ed.), *Evolutionary Design by Computers*. Morgan Kaufmann.
- [30] Pollack J, Blair A, Land M. 1997 Coevolution of a backgammon player. In: *Artificial Life V*. MIT Press.
- [31] Mayer H Symbiotic coevolution of artificial neural networks and training data sets. pp. 511–520.
- [32] Rosin C. 1997 *Coevolutionary Search Among Adversaries*. Ph.D. thesis, University of California, San Diego.
- [33] Wiegand RP, Liles W, De Jong K Analyzing cooperative coevolution with evolutionary game theory. (To appear).
- [34] Wiegand RP Applying diffusion to a cooperative coevolutionary model. pp. 560–569.
- [35] Wiegand RP, Liles W, De Jong K An empirical analysis of collaboration methods in cooperative coevolutionary algorithms. pp. 1235–1242.
- [36] Fogel G, Andrews P, Fogel D. 1998 On the instability of evolutionary stable strategies in small populations. *Ecological Modeling* **109**, 283–294.
- [37] Fogel D, Fogel G, Andrews P. 1995 On the instability of evolutionary stable strategies. *BioSystems* **44**, 135–152.
- [38] Fogel D, Fogel G. 1995 Evolutionary stable strategies are not always stable under evolutionary dynamics. In: McDonnell JR, Reynolds RG, Fogel D (eds.), *Proceedings of the Fourth Annual Conference on Evolutionary Programming*, pp. 565–577. Cambridge, MA: MIT Press.
- [39] Kauffman S. 1991 Coevolution to the edge of chaos: coupled fitness landscapes, poised states, and coevolutionary avalanches. In: Langton C, Taylor C, Farmer J, Rasmussen S (eds.), *Artificial Life II: Studies in the Sciences of Complexity*, vol. X, pp. 325–369. Addison-Wesley.
- [40] Pagie L, P H Information integration and red queen dynamics in coevolutionary optimization. pp. 1260–1267.
- [41] Pagie L, Mitchell M A comparison of evolutionary and coevolutionary search. pp. 20–25.
- [42] Pagie L, Hogeweg P. 1997 Evolutionary consequences of coevolving targets. *Evolutionary Computation* **5**, 4, 401–418.

- [43] Pagie L. 1999 *Coevolutionary dynamics: information integration, speciation, and red queen dynamics*. Ph.D. thesis, University of New Mexico, Santa Fe, NM.
- [44] Watson R, Pollack J Coevolutionary dynamics in a minimal substrate. pp. 702–709.
- [45] Wiegand RP, Liles W, De Jong K. 2001. Multi-population symmetric game dynamics. In preparation.
- [46] Juillé H. 2001. Basic concepts in coevolution. Presentation at GECCO-01 Coevolutionary Workshop.
- [47] Luke S. 1998 Genetic programming produced competitive soccer softbot teams for RoboCup97. In: Koza JR, Banzhaf W, Chellapilla K, Deb K, Dorigo M, Fogel DB, Garzon MH, Goldberg DE, Iba H, Riolo R (eds.), *Genetic Programming 1998: Proceedings of the Third Annual Conference*, pp. 214–222. University of Wisconsin, Madison, Wisconsin, USA: Morgan Kaufmann.
- [48] Axelrod R. 1984 *The Evolution of Cooperation*. Basic Books.
- [49] Fogel D. 2001 *Blondie24: Playing at the Edge of Artificial Intelligence*. Morgan Kaufmann.
- [50] Sims K. 1994 Evolving 3D morphology and behavior by competition. In: Brooks RA, Maes P (eds.), *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, pp. 28–39. MIT Press.
- [51] Reynolds C. 1994 Competition, coevolution and the game of tag. In: Brooks RA, Maes P (eds.), *Artificial Life IV, Proceedings of the fourth International Workshop on the Synthesis and Simulation of Living Systems.*, pp. 59–69. MIT Press.
- [52] Smith R, Gray B. 1993 Co-adaptive genetic algorithms: An example in othello strategy. Tech. Rep. TCGA 94002, University of Alabama, Department of Engineering Science and Mechanics.
- [53] Axelrod. 1987 The evolution of strategies in the iterated prisoner’s dilemma. In: Davis L (ed.), *Genetic Algorithms and Simulated Annealing*. Morgan Kaufmann.