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Nota di contenuto	1. Characterizing the Effects of Random Subsampling on Lexicase Selection -- 2. It is Time for New Perspectives on How to Fight Bloat in GP -- 3. Explorations of the Semantic Learning Machine Neuroevolution Algorithm -- 4. Can Genetic Programming Perform Explainable Machine Learning for Bioinformatics? -- 5. Symbolic Regression by Exhaustive Search – Reducing the Search Space using Syntactical Constraints and Efficient Semantic Structure Deduplication -- 6. Temporal Memory Sharing in Visual Reinforcement Learning -- 7. The Evolution of Representations in Genetic Programming Trees -- 8. How Competitive is Genetic Programming in Business Data Science Applications? -- 9. Using Modularity Metrics as Design Features to Guide Evolution in Genetic Programming -- 10. Evolutionary Computation and AI Safety -- 11. Genetic Programming Symbolic Regression -- 12. Hands-on Artificial Evolution through Brain Programming -- 13. Comparison of Linear Genome Representations For Software Synthesis -- 14. Enhanced Optimization with Composite Objectives and Novelty Pulsation -- 15. New Pathways in Coevolutionary Computation -- 16. 2019 Evolutionary

Algorithms Review -- 17. Evolving a Dota 2 Hero Bot with a Probabilistic Shared Memory Model -- 18. Modelling Genetic Programming as a Simple Sampling Algorithm -- 19. An Evolutionary System for Better Automatic Software Repair -- Index.

Sommario/riassunto

These contributions, written by the foremost international researchers and practitioners of Genetic Programming (GP), explore the synergy between theoretical and empirical results on real-world problems, producing a comprehensive view of the state of the art in GP. In this year's edition, the topics covered include many of the most important issues and research questions in the field, such as: opportune application domains for GP-based methods, game playing and co-evolutionary search, symbolic regression and efficient learning strategies, encodings and representations for GP, schema theorems, and new selection mechanisms. The volume includes several chapters on best practices and lessons learned from hands-on experience. Readers will discover large-scale, real-world applications of GP to a variety of problem domains via in-depth presentations of the latest and most significant results.
