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Titolo	Genetic Programming Theory and Practice XIX // Leonardo Trujillo [and three others], editors
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ISBN	981-19-8460-3
Edizione	[First edition.]
Descrizione fisica	1 online resource (272 pages)
Collana	Genetic and Evolutionary Computation Series
Disciplina	006.31
Soggetti	Genetic programming (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Symbolic Regression in Materials Science: Discovering Interatomic Potentials from Data -- Chapter 2. Correlation versus RMSE Loss Functions in Symbolic Regression Tasks -- Chapter 3. GUI-Based, Efficient Genetic Programming and AI Planning For Unity3D -- Chapter 4. Genetic Programming for Interpretable and Explainable Machine Learning -- Chapter 5. Biological Strategies ParetoGP Enables Analysis of Wide and Ill-Conditioned Data from Nonlinear Systems -- Chapter 6. GP-Based Generative Adversarial Models -- Chapter 7. Modelling Hierarchical Architectures with Genetic Programming and Neuroscience Knowledge for Image Classification through Inferential Knowledge -- Chapter 8. Life as a Cyber-Bio-Physical System -- Chapter 9. STREAMLINE: A Simple, Transparent, End-To-End Automated Machine Learning Pipeline Facilitating Data Analysis and Algorithm Comparison -- Chapter 10. Evolving Complexity is Hard -- Chapter 11. ESSAY: Computers Are Useless ... They Only Give Us Answers.
Sommario/riassunto	This book brings together some of the most impactful researchers in the field of Genetic Programming (GP), each one working on unique and interesting intersections of theoretical development and practical applications of this evolutionary-based machine learning paradigm. Topics of particular interest for this year's book include powerful modeling techniques through GP-based symbolic regression, novel selection mechanisms that help guide the evolutionary process, modular approaches to GP, and applications in cybersecurity,

biomedicine and program synthesis, as well as papers by practitioner of GP that focus on usability and real-world results. In summary, readers will get a glimpse of the current state of the art in GP research.
