1. Record Nr. UNISA996465290703316

Titolo	Programming Languages and Systems [[electronic resource]] : 19th European Symposium on Programming, ESOP 2010, Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2010, Paphos, Cyprus, March 20-28, 2010. Proceedings / / edited by Andrew Gordon
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
ISBN	1-280-38582-0 9786613563743 3-642-11957-3
Edizione	[1st ed. 2010.]
Descrizione fisica	1 online resource (XV, 632 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 6012
Classificazione	DAT 350f SS 4800
Disciplina	005.1
Soggetti	Software engineering Computer networks Computer science Computer programming Compilers (Computer programs) Software Engineering Computer Communication Networks Computer Science Logic and Foundations of Programming Programming Techniques Compilers and Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Audacity of Hope: Thoughts on Reclaiming the Database Dream -- Dynamic Boundaries: Information Hiding by Second Order Framing with First Order Assertions -- Coupling Policy Iteration with Semi-definite Relaxation to Compute Accurate Numerical Invariants in Static Analysis -- Precise and Automated Contract-Based Reasoning for Verification and Certification of Information Flow Properties of Programs with

Arrays -- A Semantic Framework for Declassification and Endorsement -- Amortised Resource Analysis with Separation Logic -- A PolyTime Functional Language from Light Linear Logic -- Testing Polymorphic Properties -- Formal Verification of Coalescing Graph-Coloring Register Allocation -- A Theory of Speculative Computation -- Propositional Interpolation and Abstract Interpretation -- Functional Programming in Sublinear Space -- Logical Concurrency Control from Sequential Proofs -- Fluid Updates: Beyond Strong vs. Weak Updates -- Parameterized Memory Models and Concurrent Separation Logic -- Amortized Resource Analysis with Polynomial Potential -- Generative Operational Semantics for Relaxed Memory Models -- Automating Security Mediation Placement -- TRX: A Formally Verified Parser Interpreter -- On the Expressive Power of Primitives for Compensation Handling -- Separating Shape Graphs -- Deadlock-Free Channels and Locks -- Verifying a Compiler for Java Threads -- A Grammar-Based Approach to Invertible Programs -- Faulty Logic: Reasoning about Fault Tolerant Programs -- A Hoare Logic for the Coinductive Trace-Based Big-Step Semantics of While -- A Universal Calculus for Stream Processing Languages -- Enforcing Stateful Authorization and Information Flow Policies in Fine -- Stateful Contracts for Affine Types -- CFA2: A Context-Free Approach to Control-Flow Analysis -- Weighted Dynamic Pushdown Networks -- Explicit Stabilisation for Modular Rely-Guarantee Reasoning.

2. Record Nr. UNINA9910299483703321

Autore	Ponce-Espinosa Hiram
Titolo	Artificial Organic Networks : Artificial Intelligence Based on Carbon Networks / / by Hiram Ponce-Espinosa, Pedro Ponce-Cruz, Arturo Molina
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	9783319024721 3319024728
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (XII, 228 p. 192 illus., 56 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 521
Disciplina	006.3
Soggetti	Computational intelligence Artificial intelligence Biochemical engineering Computer simulation Computational Intelligence Artificial Intelligence Biochemical Engineering Simulation and Modeling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Introduction to Modeling Problems -- Chemical Organic Compounds -- Artificial Organic Networks -- Artificial Hydrocarbon Networks -- Enhancements of Artificial Hydrocarbon Networks -- Notes on Modeling Problems Using Artificial Hydrocarbon Networks -- Applications of Artificial Hydrocarbon Networks.-Appendices.
Sommario/riassunto	This monograph describes the synthesis and use of biologically-inspired artificial hydrocarbon networks (AHNs) for approximation models associated with machine learning and a novel computational algorithm with which to exploit them. The reader is first introduced to various kinds of algorithms designed to deal with approximation problems and then, via some conventional ideas of organic chemistry, to the creation and characterization of artificial organic networks and AHNs in particular. The advantages of using organic networks are

discussed with the rules to be followed to adapt the network to its objectives. Graph theory is used as the basis of the necessary formalism. Simulated and experimental examples of the use of fuzzy logic and genetic algorithms with organic neural networks are presented and a number of modeling problems suitable for treatment by AHNs are described: · approximation; · inference; · clustering; · control; · classification; and · audio-signal filtering. The text finishes with a consideration of directions in which AHNs could be implemented and developed in future. A complete LabVIEW™ toolkit, downloadable from the book's page at springer.com enables readers to design and implement organic neural networks of their own. The novel approach to creating networks suitable for machine learning systems demonstrated in Artificial Organic Networks will be of interest to academic researchers and graduate students working in areas associated with computational intelligence, intelligent control, systems approximation and complex networks.