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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 11538
Disciplina	003.54
Soggetti	Computer science Artificial intelligence Computer engineering Computer networks Logic design Computer vision Computer science—Mathematics Theory of Computation Artificial Intelligence Computer Engineering and Networks Logic Design Computer Vision Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Track of Biomedical and Bioinformatics Challenges for Computer Science -- Parallelization of an algorithm for automatic classification of medical data -- The Chain Alignment Problem -- Comparing Deep and Machine Learning approaches in bioinformatics: a miRNA-target prediction case study -- Automated epileptic seizure detection method

based on the multi-attribute EEG feature pool and mRMR feature selection method -- An Approach for Semantic Data Integration in Cancer Studies -- A Study of the Electrical Propagation in Purkinje Fibers -- A Knowledge Based Self-Adaptive Differential Evolution Algorithm for Protein Structure Prediction -- A multi-objective artificial bee colony algorithm for the 3-D protein structure prediction problem -- Combining Polynomial Chaos Expansions and Genetic Algorithm for the coupling of electrophysiological models -- A cloud architecture for the execution of medical imaging biomarkers -- A Self-Adaptive Local Search Coordination in Multimeme Memetic Algorithm for Molecular Docking -- Parallel CT reconstruction for multiple slices studies with SuiteSparseQR factorization package -- Track of Classifier Learning from Difficult Data -- ARFF data source library for distributed single/multiple instance, single/multiple output learning on Apache Spark -- On the role of cost-sensitive learning in imbalanced data oversampling -- Characterization of Handwritten Signature Images in Dissimilarity Representation Space -- Missing Features Reconstruction and Its Impact on Classification Accuracy -- A Deep Malware Detection Method Based on General-Purpose Register Features -- A Novel Distribution Analysis for SMOTE oversampling method in Handling Class Imbalance -- Forecasting purchase categories by transactional data: a comparative study of classification methods -- Recognizing Faults in Software Related Difficult Data -- Track of Computational Finance and Business Intelligence -- Research on Knowledge Discovery in Database of Traffic Flow State Based on Attribute Reduction -- Factor Integration based on Neural Networks for Factor Investing -- Brief Survey of Relation Extraction based on Distant Supervision -- Short-Term Traffic Congestion Forecasting Using Attention-Based Long Short-Term Memory Recurrent Neural Network -- Portfolio Selection based on Hierarchical Clustering and Inverse-variance Weighting -- A computational Technique for Asian option pricing model -- Improving portfolio optimization using weighted link prediction in dynamic stock networks -- Track of Computational Optimization, Modelling and Simulation -- Comparison of Constraint-Handling Techniques for Metaheuristic Optimization -- Dynamic Partitioning of Evolving Graph Streams using Nature-inspired Heuristics -- Bat Algorithm for Kernel Computation in Fractal Image Reconstruction -- Heuristic Rules for Coordinated Resources Allocation and Optimization in Distributed Computing -- Nonsmooth Newton's Method: Some Structure Exploitation -- Fully-Asynchronous Cache-Efficient Simulation of Detailed Neural Networks -- Application of the model with a non-Gaussian linear scalar filters to determine life expectancy, taking into account the cause of death -- Improving ODE integration on graphics processing units by reducing thread divergence -- Data Compression for Optimization of Molecular Dynamics System: Preserving Basins of Attraction -- An algorithm to perform hydraulic tomography based on a mixture model -- Rapid Multi-Band Patch Antenna Yield Estimation Using Polynomial Chaos-Kriging -- Accelerating Limited-Memory Quasi-Newton Convergence for Large-Scale Optimization -- Reduced-Cost Design Optimization of High-Frequency Structures Using Adaptive Jacobian Updates -- An Algorithm for Selecting Measurements with High Information Content Regarding Parameter Identification -- Optimizing parallel performance of the cell based blood flow simulation software HemoCell -- Surrogate-based optimisation of tidal turbine arrays: A case study for the Faro-Olhão Inlet -- Time-dependent link travel time approximation for large-scale dynamic traffic simulations -- Evaluation of the Suitability of Intel Xeon Phi Clusters for the Simulation of Ultrasound Wave Propagation using Pseudospectral

Methods -- Track of Computational Science in IoT and Smart Systems -- Fog computing architecture based blockchain for industrial IoT -- Exploration of Data from Smart Bands in the Cloud and on the Edge - the Impact on the Data Storage Space -- Security of Low Level IoT Protocols -- FogFlow - computation organization for heterogeneous Fog computing Environments -- Research and Implementation of an Aquaculture Monitoring System Based on Flink, MongoDB and Kafka -- Enhanced Hydroponic Agriculture Environmental Monitoring: An Internet of Things Approach -- Noise Mapping through Mobile Crowdsourcing for Enhanced Living Environments -- Environmental Quality Supervision for Enhanced Living Environments and Laboratory Activity Support using IBM Watson Internet of Things Platform -- Combining Data from Fitness Trackers with Meteorological Sensor Measurements for Enhanced Monitoring of Sports Performance -- Collaborative Learning Agents (CLA) for Swarm Intelligence and Application to Health Monitoring of System of Systems -- Computationally Efficient Classification of Audio Events Using Binary Masked Cochleagrams.

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### Sommario/riassunto

The five-volume set LNCS 11536, 11537, 11538, 11539 and 11540 constitutes the proceedings of the 19th International Conference on Computational Science, ICCS 2019, held in Faro, Portugal, in June 2019. The total of 65 full papers and 168 workshop papers presented in this book set were carefully reviewed and selected from 573 submissions (228 submissions to the main track and 345 submissions to the workshops). The papers were organized in topical sections named: Part I: ICCS Main Track Part II: ICCS Main Track; Track of Advances in High-Performance Computational Earth Sciences: Applications and Frameworks; Track of Agent-Based Simulations, Adaptive Algorithms and Solvers; Track of Applications of Matrix Methods in Artificial Intelligence and Machine Learning; Track of Architecture, Languages, Compilation and Hardware Support for Emerging and Heterogeneous Systems Part III: Track of Biomedical and Bioinformatics Challenges for Computer Science; Track of Classifier Learning from Difficult Data; Track of Computational Finance and Business Intelligence; Track of Computational Optimization, Modelling and Simulation; Track of Computational Science in IoT and Smart Systems Part IV: Track of Data-Driven Computational Sciences; Track of Machine Learning and Data Assimilation for Dynamical Systems; Track of Marine Computing in the Interconnected World for the Benefit of the Society; Track of Multiscale Modelling and Simulation; Track of Simulations of Flow and Transport: Modeling, Algorithms and Computation Part V: Track of Smart Systems: Computer Vision, Sensor Networks and Machine Learning; Track of Solving Problems with Uncertainties; Track of Teaching Computational Science; Poster Track ICCS 2019 Chapter "Comparing Domain-decomposition Methods for the Parallelization of Distributed Land Surface Models" is available open access under a Creative Commons Attribution 4.0 International License via [link.springer.com](http://link.springer.com).

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