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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 12744
Disciplina	004
Soggetti	Computer science Artificial intelligence Computer engineering Computer networks Computer science - Mathematics Theory of Computation Artificial Intelligence Computer Engineering and Networks Mathematics of Computing
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Classifier Learning from Difficult Data -- Soft Confusion Matrix Classifier for Stream Classification -- Some proposal of the high dimensional PU learning classification procedure -- Classifying Functional Data from Orthogonal Projections – model, properties and fast implementation -- Clustering and Weighted Scoring Algorithm Based on Estimating the Number of Clusters -- Exact Searching for the Smallest Deterministic Automaton -- Learning Invariance in Deep Neural Networks -- Mimicking learning for 1-NN classifiers -- Application of Multi-Objective Optimization to Feature Selection for a Difficult Data Classification Task -- Deep Embedding Features for Action Recognition on Raw Depth Maps -- Analysis of variance

application in the construction of classifier ensemble based on optimal feature subset for the task of supporting glaucoma diagnosis -- Multi-objective evolutionary undersampling algorithm for imbalanced data classification -- Missing value imputation method using separate features nearest neighbors algorithm -- On Validity of Extreme Value Theory-Based Parametric Models for Out-of-Distribution Detection -- Clustering-based Ensemble Pruning in the Imbalanced Data Classification -- Improvement of random undersampling to avoid excessive removal of points from a given area of the majority class -- Predictability Classes for Forecasting Bank Clients Behavior by Transactional Data -- A Non-Intrusive Machine Learning Solution for Malware Detection and Data Theft Classification in Smartphones -- Analysis of Semestral Progress in Higher Technical Education with HMM Models -- Vicinity-based Abstraction: VA-DGCNN Architecture for Noisy 3D Indoor Object Classification -- Grid-Based Concise Hash for Solar Images -- Machine learning algorithms for conversion of CVSS base score from 2.0 to 3.x -- Applicability of Machine Learning to Short-Term Prediction of Changes in the Low Voltage Electricity Distribution Network -- Computational Analysis of Complex Social Systems -- A Model for Urban Social Networks -- Three-state opinion q-voter model with bounded confidence -- The evolution of political views within the model with two binary opinions -- How to reach consensus? Better disagree with your neighbor -- Efficient calibration of a financial agent-based model using the method of simulated moments -- Computational Collective Intelligence -- A Method for Improving Word Representation Using Synonym Information -- Fast Approximate String Search for Wikification -- ASH: A New Tool for Automated and Full-Text Search in Systematic Literature Reviews -- A Voice-based Travel Recommendation System Using Linked Open Data -- Learning from Imbalanced Data Streams based on Over-Sampling and Instance Selection -- Computational Intelligence Techniques for Assessing Data Quality: Towards Knowledge-Driven Processing -- The Power of a Collective: Team of Agents Solving Instances of the Flow Shop and Job Shop Problems -- Bagging and single decision tree approaches to dispersed data -- An Intelligent Social Collective with Facebook-based Communication -- Multi-Agent Spatial SIR-Based Modeling and Simulation of Infection Spread Management -- Multi-Criteria Seed Selection for Targeted Influence Maximization within Social Networks -- How Attachment to your Primary Caregiver Influences your First Adult Relationship: An Adaptive Network Model of Attachment Theory -- Computational Health -- Hybrid Predictive Modelling for Finding Optimal Multipurpose Multicomponent Therapy -- Towards cost-effective treatment of periprosthetic joint infection: from statistical analysis to Markov models -- Optimization of Selection of Tests in Diagnosing the Patient by General Practitioner -- Simulation of Burnout Processes by a Multi-Order Adaptive Network Model -- Reversed Correlation-Based Pairwise EEG Channel Selection in Emotional State Recognition -- Theory of Mind Helps to Predict Neurodegenerative Processes in Parkinson's Disease -- Regaining Cognitive Control: An Adaptive Computational Model Involving Neural Correlates of Stress, Control and Intervention -- MAM: A Metaphor-based Approach for Mental Illness Detection -- Feature Engineering with Process Mining Technique for Patient State Predictions -- Comparative Evaluation of Lung Cancer CT Image Synthesis with Generative Adversarial Networks -- Deep convolutional neural networks in application to kidney segmentation in the DCE-MR images -- Comparison of Efficiency, Stability and Interpretability of Feature Selection Methods for Multiclassification Task on Medical Tabular Data

-- Side effect alerts generation from EHR in Polish -- des-ist: a simulation framework to streamline event-based in silico trials -- Identifying Synergistic Interventions to Address COVID-19 Using a Large Scale Agent-Based Model -- Modeling co-circulation of influenza strains in heterogeneous urban populations: the role of herd immunity and uncertainty factors -- Two-Way Coupling Between 1D Blood Flow and 3D Tissue Perfusion Models -- Applying DCT combined cepstrum for the assessment of the arteriovenous fistula condition -- Electrocardiogram Quality Assessment with Autoencoder -- Stenosis assessment via volumetric flow rate calculation -- Fuzzy ontology for patient emergency department triage -- Ontology-based decision support system for dietary recommendations for type 2 diabetes mellitus.

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## Sommario/riassunto

The six-volume set LNCS 12742, 12743, 12744, 12745, 12746, and 12747 constitutes the proceedings of the 21st International Conference on Computational Science, ICCS 2021, held in Krakow, Poland, in June 2021.\* The total of 260 full papers and 57 short papers presented in this book set were carefully reviewed and selected from 635 submissions. 48 full and 14 short papers were accepted to the main track from 156 submissions; 212 full and 43 short papers were accepted to the workshops/ thematic tracks from 479 submissions. The papers were organized in topical sections named: Part I: ICCS Main Track Part II: Advances in High-Performance Computational Earth Sciences: Applications and Frameworks; Applications of Computational Methods in Artificial Intelligence and Machine Learning; Artificial Intelligence and High-Performance Computing for Advanced Simulations; Biomedical and Bioinformatics Challenges for Computer Science Part III: Classifier Learning from Difficult Data; Computational Analysis of Complex Social Systems; Computational Collective Intelligence; Computational Health Part IV: Computational Methods for Emerging Problems in (dis-)Information Analysis; Computational Methods in Smart Agriculture; Computational Optimization, Modelling and Simulation; Computational Science in IoT and Smart Systems Part V: Computer Graphics, Image Processing and Artificial Intelligence; Data-Driven Computational Sciences; Machine Learning and Data Assimilation for Dynamical Systems; MeshFree Methods and Radial Basis Functions in Computational Sciences; Multiscale Modelling and Simulation Part VI: Quantum Computing Workshop; Simulations of Flow and Transport: Modeling, Algorithms and Computation; Smart Systems: Bringing Together Computer Vision, Sensor Networks and Machine Learning; Software Engineering for Computational Science; Solving Problems with Uncertainty; Teaching Computational Science; Uncertainty Quantification for Computational Models \*The conference was held virtually.

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