1. Record Nr. UNINA9910483662703321

Titolo	Computational Science – ICCS 2021 : 21st International Conference, Krakow, Poland, June 16–18, 2021, Proceedings, Part V / / edited by Maciej Paszynski, Dieter Kranzlmüller, Valeria V. Krzhizhanovskaya, Jack J. Dongarra, Peter M.A. Sloot
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-77977-7
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIX, 592 p. 265 illus., 232 illus. in color.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 12746
Disciplina	004
Soggetti	Computer science Artificial intelligence Computer engineering Computer networks Computer vision Theory of Computation Artificial Intelligence Mathematics of Computing Computer Engineering and Networks Computer Vision
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Computer Graphics, Image Processing and Artificial Intelligence -- Factors aecting the sense of scale in immersive, realistic Virtual Reality space -- Capsule Network versus Convolutional Neural Network in Image Classification Comparative Analysis -- State-of-the-art in 3D face reconstruction from a single RGB image -- Towards understanding time varying triangle meshes -- Semantic similarity metric learning for sketch-based 3D shape retrieval -- ScatterPlotAnalyzer: Digitizing Images of Charts Using Tensor-based Computational Model -- EEG-Based Emotion Recognition Using Convolutional Neural Networks -- Improving Deep Object Detection Backbone with Feature Layers --

Procedural Level Generation with Difficulty Level Estimation for Puzzle Games -- ELSA: Euler-Lagrange Skeletal Animations - novel and fast motion model applicable to VR/AR devices -- Composite generalized elliptic curve-based surface reconstruction -- Supporting Driver Physical State Estimation by Means of Thermal Image Processing -- Smart Events in Behavior of Non-player characters in Computer Games -- Place Inference via Graph-based One-class Decisions on Deep Embeddings and Blur Detections -- Football Players Movement Analysis in Panning Videos -- Shape reconstruction from point clouds using closed form solution of a fourth-order partial dierential equation -- Data-Driven Computational Sciences -- Addressing Missing Data in a Healthcare Dataset Using an Improved kNN Algorithm -- Improving Wildfire Simulations by Estimation of Wildfire Wind Conditions from Fire Perimeter Measurements -- Scalable Statistical Inference of Photometric Redshift via Data Subsampling -- Timeseries based deep hybrid transfer learning framework: A case of electrical vehicle energy consumption -- Hybrid machine learning for time-series energy data for enhancing energy efficiency in buildings -- I-80 Closures: An Autonomous Machine Learning Approach -- Energy Consumption Prediction for Multi-functional Buildings Using Convolutional Bidirectional Recurrent Neural Networks -- Machine Learning and Data Assimilation for Dynamical Systems -- Deep Learning for Solar Irradiance Nowcasting: A Comparison of a Recurrent Neural Network and Two Traditional Methods -- Automatic-dierentiated Physics-Informed Echo State Network (API-ESN) -- A machine learning method for parameter estimation and sensitivity analysis -- Auto-Encoded Reservoir Computing for Turbulence Learning -- Low-dimensional Decompositions for Nonlinear Finite Impulse Response Modeling -- Latent GAN: using a latent space-based GAN for rapid forecasting of CFD models -- Data Assimilation in the Latent Space of a Convolutional Autoencoder -- Higher-order hierarchical spectral clustering for multidimensional data -- Towards data-driven simulation models for building energy management -- Data Assimilation using Heteroscedastic Bayesian Neural Network Ensembles for Reduced-Order Flame Models -- A GPU algorithm for outliers detection in TESS light curves -- Data-driven deep learning emulators for geophysical forecasting -- NVIDIA SimNet: An AI-Accelerated Multi-Physics Simulation Framework -- MeshFree Methods and Radial Basis Functions in Computational Sciences -- Analysis of vortex induced vibration of a thermowell by high fidelity FSI numerical analysis based on RBF structural modes embedding -- Automatic Optimization Method based on mesh morphing surface sculpting driven by Biological Growth Method: an application to the Coiled Spring section shape -- Multiscale Modelling and Simulation -- Verification, Validation and Uncertainty Quantification of large-scale applications with QCG-PilotJob -- Towards a coupled migration and weather simulation: South Sudan conflict -- Evaluating WRF-BEP/BEM performance: on the way to analyze urban air quality at high resolution using WRF-Chem+BEP/BEM -- Pathology dynamics in healthy-toxic protein interaction and the multiscale analysis of neurodegenerative diseases -- A Semi-implicit Backward Dierentiation ADI Method for Solving Monodomain Model -- A Deep Learning Approach for Polycrystalline Microstructure-Statistical Property Prediction -- MsFEM upscaling for the coupled thermo-mechanical problem -- MaMiCo: Non-Local Means Filtering with Flexible Data-Flow for Coupling MD and CFD.

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.