

1. Record Nr.	UNINA9911015866103321
Autore	Gibadullin Arthur
Titolo	Computing Technologies and Applied Mathematics : CTAM 2024, Komsomolsk-na-Amure, Russia, October 07-11, 2024 / / edited by Arthur Gibadullin, Sergey Gordin
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-90546-6
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (251 pages)
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1017 ; ; 500
Altri autori (Persone)	GordinSergey
Disciplina	518
Soggetti	Mathematics - Data processing Algorithms Mathematical optimization Computational Mathematics and Numerical Analysis Discrete Optimization
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Information-Mathematical Support of Digital Twin of Stand-Alone Hybrid Energy System -- Quadratic Programming in a Model of Resource Distribution in Agriculture Based on Quantum Approximate Optimization Algorithm -- The Detection of a Jump-like Gaussian Random Disturbance When Appearance Time and Dispersion is Unknown -- Mathematical Analysis of Disturbing Forces in the Air Gap of an Asynchronous Motor Using Finite Element Modeling -- Information-Analytical System for Fractal and Neural Network Diagnostics of Computed Tomography Images of the Lungs -- Optimizing Resources in Information and Telecommunication Systems on the Base of Mathematical Simulation -- Application of Quantum Swarm Algorithm in Global Optimization -- Genetic Algorithm for Sequential Optimization of Data Sampling for Construction Surrogate Models -- Beltrami-Mitchell Equations for the Case of Incompatible Deformations -- Optimization of Cargo Delivery Route to Nearby Cities -- Refinement of Variable Order Fractional Derivative of Gerasimov-Caputo Type by Multidimensional Levenberg-Marquardt Optimization Method -- Computational Approach to Modeling Nutrient-Dependent

Growth of Bacterial Patterns with Time Delay Effect -- A Combined Approach to the Classification and Se-Mantic Segmentation of Production Tools Through the use of the One-Shot Learning Method -- The Kolmogorov-Smirnov Mathematical Test for Vectors of the Digital Twin of an Enterprise.

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Sommario/riassunto

This proceedings volume convenes revised, selected works presented at the 3rd International Seminar on Computing Technologies and Applied Mathematics (CTAM2024), held at Komsomolsk-na-Amure State University, Russia, from October 7 to 11, 2024. The seminar brought together a diverse group of international experts and young scientists from Germany, China, South Korea, Uzbekistan, and Russia to exchange the latest results and original ideas on the use of computing technologies and applied mathematics tools in both fundamental and applied research. Topics covered in this volume include the development of theoretical foundations, methods, and algorithms for implementing mathematical and computational models. The subjects ranged from health to logistics, with many devoted to algorithm optimization. Industrial applications are also covered, with studies of digital twins and quantum and evolutionary algorithms. By bridging academia and industry, this volume can benefit graduate students, experienced researchers, and industry practitioners alike, fostering both practical implementations in real-world scenarios and innovative avenues of applied research. .

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