Record Nr. UNISA996647868403316 Autore Královi Rastislav **Titolo** SOFSEM 2025: Theory and Practice of Computer Science: 50th International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2025, Bratislava, Slovak Republic, January 20-23, 2025, Proceedings, Part I / / edited by Rastislav Královi, Vra Krková Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 9783031826702 3031826701 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (736 pages) Lecture Notes in Computer Science, , 1611-3349; ; 15538 Collana Altri autori (Persone) KrkováVra Disciplina 004.0151 Soggetti Computer science Computer science - Mathematics Discrete mathematics Artificial intelligence Computer networks Theory of Computation Mathematics of Computing Discrete Mathematics in Computer Science Symbolic and Algebraic Manipulation Artificial Intelligence Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Invited talks -- Distributed Computing by Mobile Robots: Exploring the Computational Landscape -- Open Problems and Recent Developments on a Complexity Framework for Forbidden Subgraphs -- Contributed Papers -- Parameterized Complexity of Feedback Vertex Set with Connectivity Constraints -- Online b-Matching with Stochastic Rewards -- Shortest Longest-Path Graph Orientations for Trees --

Parameterized Complexity of Generalizations of Edge Dominating Set -- Beyond Image-Text Matching: Verb Understanding in Multimodal

Transformers Using Guided Masking -- On the Complexity of Minimum Membership Dominating Set -- On the Structural Parameterized Complexity of Defective Coloring -- Dynamic Range Minimum Queries on the Ultra-Wide Word RAM -- Fast Practical Compression of Deterministic Finite Automata -- Orienteering (with Time Windows) on Restricted Graph Classes -- Massively Parallel Maximum Coverage Revisited -- Distance Vector Domination -- Sufficient conditions for polynomial-time detection of induced minors -- Pathways to Tractability for Geometric Thickness -- Minimum Monotone Spanning Trees -- Symvonis and Alexander Wol Representing Hypergraphs by Point-Line Incidences -- Reachability in temporal graphs under perturbation -- On Computational Completeness of Semi-Conditional Matrix Grammars -- Outer-(ap)RAC Graphs -- Forest Covers and Bounded Forest Covers -- Multi-Agent Search-Type Problems on Polygons -- Generation of Cycle Permutation Graphs and Permutation Snarks -- Expected Density of Random Minimizers.

Sommario/riassunto

This book constitutes the proceedings of the 50th International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2025, held in Bratislava, Slovak Republic, during January 20-23, 2025. The 48 full papers presented in this book were carefully reviewed and selected from 109 submissions. They include original research from all areas of foundations of computer science and artificial intelligence focusing on Al-based algorithms and techniques, nature-inspired computing, machine learning theory, multi-agent algorithms and games, neural network theory, parallel and distributed computing, quantum computing, computability, decidability, classical and non-classical models of computation, computational complexity, computational learning, cryptographic techniques and security, data compression, data and pattern mining methods, discrete combinatorial optimization, automata, languages, machine models, rewriting systems, efficient data structures, graph structure and algorithms, logics of computation, robotics, and other relevant theory topics in computing and AI.