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Sommario/riassunto

This book gathers the latest advances, innovations, and applications in the field of engineering optimization and architectural design, presented at the 1st International Conference on ADDitively Manufactured OPTimized Structures by means of Machine Learning (ADDOPTML), held in Amman, Jordan, on October 1–4, 2024, jointly with conferences OPTARCH2024 and OPT-ii2024. It covers topics such as machine learning-based design manufacturing process for civil structures, additive manufacturing optimized structural elements, holistic machine learning aided, linear, nonlinear, stochastic, parametric, discrete and dynamic programming—modelling, hybrid methods with metaheuristics, machine learning, game theory, mathematical programming, constraint programming, co-evolutionary, emergent nature-inspired algorithms such as quantum computing and artificial immune systems. Written by leading researchers and engineers, and selected by means of a rigorous international peer-review process, the contributions highlight numerous exciting ideas that will spur novel research directions and foster multidisciplinary collaborations.