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POSGRADO

NP-hard optimization problems still persist... despite deep learning

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Entrada libre hasta completar el aforo

Resumen:

Neural Combinatorial Optimization has emerged as a new paradigm in the optimization area. It attempts to solve optimization problems by means of neural networks and reinforcement learning. In the last few years, due to their novelty and presumably good performance, many research papers have been published introducing new neural architectures for a variety of combinatorial problems. However, the incorporation of such models in the conventional optimization portfolio raises many questions related to their performance compared to other existing methods, such as exact algorithms, heuristics or metaheuristics. In this talk, we will provide an idea of the capalities of NCO models giving illustrative examples, and will describe their limitations and weaknesses that comprenhend the trends for research in the next years.

Sobre Josu Ceberio Uribe:

Josu Ceberio is an Associate Professor of the Department of Computer Science and Artificial Intelligence at the University of the Basque Country UPV/EHU. Previously, he received a bachelor's degree in computer science from the University of the Basque Country in 2007, and two years later, he took a master's degree in computer science from the same university. Since 2010, he has been a member of the Intelligent Systems Group where he obtained, in 2014, a Ph.D. in Computer Science with the thesis entitled "Solving Permutation-based Combinatorial Optimization Problems with Estimation of Distribution Algorithms and Extensions Thereof"