States the minimum cost node labeling lifted multicut problem, NL-LMP, an NP-hard combinatorial optimization problem whose feasible solutions define both a decomposition and a node labeling of a given graph.

Defines & implements two local search algorithms that converge monotonously to a local optimum, offering a feasible solution at any time.

Shows applications of these algorithms to the task of articulated human body pose estimation & to the task of multiple object tracking.

Evaluates on MPII Multi-Person benchmark and MOT16 for multi-object tracking benchmark.