

Properties of Two DC Algorithms in Quadratic Programming

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Abstract: Some new properties of the Projection DC decomposition algorithm (we call it Algorithm A) and the Proximal DC decomposition algorithm (we call it Algorithm B) [T. Pham Dinh, H. A. Le Thi, F. Akoa, *Combining DCA (DC Algorithms) and interior point techniques for large-scale nonconvex quadratic programming*, Optim. Methods Softw. 23(4), 609–629 (2008)] for solving the indefinite quadratic programming problem under linear constraints are obtained. Among other things, we show that DCA sequences generated by Algorithm A converge to a locally unique solution if the initial points are taken from a neighborhood of it, and DCA sequences generated by either Algorithm A or Algorithm B are all bounded if a condition guaranteeing the solution existence of the given problem is satisfied. Two open problems are discussed.

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