

# Convergence of Pham Dinh–Le Thi’s Algorithm for the Trust-region Subproblem

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**Abstract:** It is proved that any DCA sequence constructed by Pham Dinh–Le Thi’s algorithm for the trust-region subproblem [T. Pham Dinh and H. A. Le Thi, A d.c. optimization algorithm for solving the trust-region subproblem, SIAM J. Optim., 8 (1998), 476–505] converges to a Karush-Kuhn-Tucker point of the problem. This result provides a complete solution for one open question raised by H. A. Le Thi, T. Pham Dinh and N. D. Yen [Behavior of DCA sequences for solving the trust-region subproblem, J. Global Optim., 2011, DOI 10.1007/s10898-011-9696-z.]

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