

可达到和可逼近总极小点的存在性和最优性

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Existence and Optimality of Accessible and Approximatable Minimizers for Global Optimization with Deviation Integral

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摘要 针对积分总极值, 讨论并拓展了丰满集和丰满函数的概念, 研究了拟上丰满和伪上丰满函数的总极值问题. 在总极值的变差积分最优性条件下, 证明了拟上丰满函数的可达到极小点和伪上丰满函数的可逼近极小点的存在性.

关键词: [总极值问题](#) [丰满极小点](#) [拟上半丰满](#) [变差积分](#)

Abstract: The concepts of robustness of sets and functions are proposed in view of the theory of integral global minimization. These concepts are generalized, and global minimization of quasi and pseudo upper robust function is investigated in this paper. With the deviation integral optimality condition of global minimum, the existence of accessible minimizer of quasi upper functions and approximatable minimizer of pseudo upper robust function is examined..

Keywords: [global optimization](#), [robust minimizer](#), [quasi upper robust](#), [deviation integral](#)

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[1] Ekeland I. Non-convex minimization problems [J]. Amer Math Soc(N.S), 1979, 1: 443-473.

[2] Boshun Han, Yirong Yao, Quan Zheng. Existence and Optimality of Accessible and Approximatable Minimizers of Quasi Upper Robust Functions [J]. Computers and Mathematics with Applications, 2006, 52: 65-80. 

[3] Palais R S, Smale S. A generalized Morse theory [J]. Bull Amer Math Soc, 1964, 70: 165-171. 

[4] Yirong Yao, Liu Chen, Quan Zheng. Optimality condition and algorithm with deviation integral for global optimization [J]. J Math Anal Appl, 2009, 357: 371-384. 

[5] Shi S, Zheng Q, Zhuang D. Discontinuous robust mappings are approximatable [J]. Transaction of the American Mathematical Society, 1995, 347: 4943-4957. 

[6] Zheng Q. Robust analysis and global minimization of a class of discontinuous functions (I) and (II) [J]. Acta Mathematicae Applicatae Sinica, English Ser., 1990, 6: 205-223 and 1990, 6: 317-337. 

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- [7] Zheng Q. Robust analysis and global optimization [J]. International J Computers and Mathematics with Applications, 1991, 21: 17-24.
- [8] Zheng Q. Optimality conditions of global optimization(I) [J]. Acta Mathematicae Applicatae Sinica (English Series), 1985,66-78.
- [9] Chew S H, Zheng Q. Integral Global Optimization: Theory, Implementation and Applications [J]. Lecture Notes in Econ Math Sys, 1988, 298.

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