

Second-order optimality conditions for continuously differentiable multiobjective programming with vanishing constraints

Trần Thiện Khải¹, Phan Quốc Khánh², Lê Thanh Tùng³, Trịnh Tùng⁴

Abstract: In this talk, we consider the multiobjective programming with vanishing constraints for the class of continuously differentiable functions. By using the radial second-order directional derivatives in [1], the second-order necessary optimality conditions for some types of efficient solutions of the multiobjective programming with vanishing constraints are established under the suitable second-order constraint qualifications. Then, the second-order sufficient optimality conditions are derived. Our results extend the results in [2], [3] from the class of twice continuously differentiable functions to the class of continuously differentiable functions.

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¹ Center for Training and Enterprise Cooperation, Tra Vinh University, Tra Vinh
khai@tvu.edu.vn

² Faculty of Mathematics and Statistics, Ton Duc Thang University, Ho Chi Minh City, Vietnam
phanquockhanh@tdtu.edu.vn

³ Department of Mathematics, College of Natural Sciences, Can Tho University, Can Tho
lftung@ctu.edu.vn

⁴ Mai Thanh The High School, Nga Nam, Soc Trang
TrinhTung.c3mtt@soctrang.edu.vn