

# ON SEQUENTIAL OPTIMALITY CONDITIONS FOR MULTIOBJECTIVE PROBLEMS

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## **Resumo/Abstract:**

We present an extension of the well-known Approximated Gradient Projection (AGP) [2] property from the scalar problem with equality and inequality constraints to multiobjective problems (MOP). This property, in the scalar case, is strictly stronger than the usual AKKT condition [1]. But, the stopping criteria based on AGP are more reliable than those based on AKKT. We are interested in the relation between the extension of the AGP for MOP and other sequential optimality conditions.

## **References**

- [1] J.M. MARTÍNEZ, E.G. BIRGIN, *Practical Augmented Lagrangian Methods for Constrained Optimization*, SIAM Publications, 2014.
- [2] J.M. MARTÍNEZ, B.F. SVAITER , *A practical optimality condition without constraint qualifications for nonlinear programming*. J. Optim. Theory Appl. 118, 117-133,2003.