

On Optimal Properties of Special Nonlinear and Semi-infinite Problems Arising in Parametric Optimization

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Abstract: We consider a special nonlinear Programming problem depend-ing on integer parameters. For some values of these parameters (the «right» ones), this problem satisfies certain properties used in study of differential properties of optimal solutions in parametric Semi-Infinite Programming. We deduce the conditions guaran-teeing the existence of the «right» parameters values, and propose an algorithm for their determination. The conditions and the algorithm are essentially based on properties of a related linear-quadratic semi-infinite problem.

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