

**EXTENSIONS TO THE STRATEGY OF THE STEEPEST ASCENT FOR
RESPONSE SURFACE METHODOLOGY**

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Abstract

In this paper, the development of steepest ascent strategy in response surface methodology is considered. Some major aspects are the consideration of the path of steepest ascent under condition of some constraint in direction of improvement, the confidence region for the direction of steepest ascent, and the confidence cone about the estimated path.

Keywords and phrases: regression, first-order model, optimum response.