A Tool for Computing Confidence Regions on the Stationary Point of a Response Surface

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Abstract

A software tool for the computation and display of confidence regions on the location of the stationary point of a quadratic response surface is described. The algebraic complexity of the computation and plotting of these regions makes such task ideally suited for a computer algebra system. The program, coded in the computer algebra package MAPLE, has been used in a graduate level class in Response Surface Methodology (RSM). Three examples taken from the literature illustrate the use and the features of the program.