Department of Decision Sciences

Occasional Seminar

Tolerance Sensitivity Analysis: Thirty Years Later

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12:45pm Room 3-E4-SR03 Via Rontgen 1 Milano

Abstract

Tolerance sensitivity analysis was conceived in 1980 as a pragmatic approach to effectively characterize a parametric region over which objective function coefficients and right-hand-side terms in linear programming could vary simultaneously and independently while maintaining the same optimal basis. As originally proposed, the tolerance region corresponded to the maximum percentage by which coefficients or terms could vary from their estimated values. Over the last thirty years the original results have been extended in a number of ways and applied in a variety of applications. This paper is a critical review of tolerance sensitivity analysis, including extensions and applications.