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Extension of the total least square problem using general unitarily invariant norms. (English)

Zbl 1112.65037

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Using general unitarily invariant norms, the authors derive a formula that extends the total least squares problem. Their results cover the currently available results for the total least squares problem and the results given by *K. B. Huang* and *S. J. Yan* [Math. Numer. Sin. 19, 185–192 (1997; Zbl 0883.65033)]. They first outline some of the difficulties associated with the problem then state and prove several theorems to derive their results. They conclude the paper with a couple of interesting corollaries.

Reviewer: *R. P. Tewarson* (Stony Brook)

MSC:

65F20 Numerical solutions to overdetermined systems, pseudoinverses

65F35 Numerical computation of matrix norms, conditioning, scaling

Cited in 4 Documents

Keywords:

Unitarily invariant norms; Range spaces; Total least squares

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