Abstract
Estimating multivariate location and scatter with both affine equivariance and positive break down has always been difficult. A well-known estimator which satisfies both properties is the Minimum volume Ellipsoid Estimator (MVE). Computing the exact (MVE) is often not feasible, so one usually resorts to an approximate Algorithm. In the regression setup, algorithm for positive-break down estimators like Least Median of squares typically recomputed the intercept at each step, to improve the result. This approach is called intercept adjustment. In this paper we show that a similar technique, called location adjustment, Can be applied to the (MVE). For this purpose we use the Minimum Volume Ball (MVB). In order to lower the (MVE) objective function. An exact algorithm for calculating the (MVB) is presented. As an alternative to (MVB) location adjustment we propose \( L_1 \) location adjustment, which does not necessarily lower the (MVE) objective function but yields more efficient estimates for the location part. Simulations Compare the two type of location adjustment.
المصادر

1. علىي، لقاء علي، (مقارنة مقدرات التباين المشترك الحصينة في تحليل المركبات الرئيسية) رسالة دكتوراه- كلية الإدارة والاقتصاد- جامعة بغداد.


